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Message from the Executive Editor

The launch of ***The Inkwell Review: A Multidisciplinary Journal*** is an important milestone for Inkwell Publishing. This journal provides a space where ideas from different fields can come together. In a world where areas of study are often separated, we believe that sharing ideas across different disciplines can lead to better understanding and new discoveries.

This first issue brings together works from the humanities, natural sciences, and social sciences. This issue is guided by the belief that learning from different fields can help us better understand the challenges we face today. By bringing these different subjects together, we hope to encourage readers to look at important issues from different points of view.

As the Executive Editor, preparing this first issue has been both inspiring and meaningful. It would not have been possible without the hard work and dedication of our contributors. Each work was carefully reviewed to ensure quality, accuracy, and originality. We sincerely thank the scholars, writers, and academicians who shared their work with us. We are also grateful to our peer reviewers and editorial board members for their time, guidance, and valuable contributions.

Looking ahead, ***The Inkwell Review*** aims to become more than just a journal. We hope it will grow into a lasting space for sharing ideas, encouraging discussion, and building a strong academic community. We welcome new areas of study and voices that may not always be heard. Our goal is to provide a place where students, educators, researchers, writers, and other readers can share knowledge and learn from one another.

It is with great pride and excitement that we present the first issue of ***The Inkwell Review***. We invite you to read these pages with an open mind and explore ideas from fields beyond your own. We hope you discover new connections, gain fresh perspectives, and find inspiration in the works presented here.

May this first issue encourage meaningful conversations, inspire further study and creativity, and remind us of the power of sharing knowledge.

COMPARATIVE EVALUATION OF ACADEMIC PERFORMANCE BEFORE AND AFTER PARENT CONSULTATION, ACADEMIC ADVISING, AND REMEDIATION ACROSS GRADE LEVELS

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Abstract

This study comparatively evaluated the academic performance of learners who underwent parent consultation, academic advising, and remediation across grade levels. It specifically examined learners identified as having grade-related concerns, including those at risk of obtaining grades below 80 and those whose academic standing placed their eligibility for the honor roll at risk. The study employed a quantitative evaluative design using document analysis and a pre–post comparative approach. Secondary data were obtained from official academic and intervention records, with 56 paired subject-grade records included in the analysis. Descriptive and inferential statistics were used to determine changes in academic performance before and after the interventions and examine patterns across grade levels. Results showed that the overall mean grade increased from 81.27 before intervention to 82.79 after intervention, representing a mean gain of 1.52 points. Of the records analyzed, 55.36% showed improvement, 32.14% maintained their previous grades, and 12.50% showed a decline; thus, 87.50% either improved or sustained their academic performance. The difference between pre- and post-intervention grades was statistically significant, $t(55) = 4.49$, $p < .001$, with a moderate effect size. Improvements varied across grade levels, with Grade 5 demonstrating the greatest mean gain, while generally favorable patterns were also observed in Grades 1, 3, 4, and 6. The findings indicate that timely parent consultation, academic advising, and remediation were associated with favorable academic outcomes among learners requiring academic support. The study concludes that early identification and coordinated intervention constitute valuable components of a proactive academic support system. It recommends strengthening the school's early academic alert, intervention, documentation, and progress-monitoring mechanisms to provide differentiated and timely assistance based on learners' academic needs.

Keywords: Academic Advising, Academic Performance, Parent Consultation, Remediation, Early Academic Intervention

Introduction

Academic performance is an important indicator of learners' progress and provides schools with a basis for identifying students who require timely academic support. In a data-informed educational environment, assessment results should not merely determine grades but should also guide appropriate interventions and continuous improvement. Allic and Lunar (2024) emphasized the value of understanding patterns, quantifying relationships, and using evidence to inform pedagogical innovation. Similarly, targeted school-based interventions have been found to contribute positively to the achievement of learners who have or are at risk of academic difficulties (Dietrichson et al., 2020). These perspectives highlight the importance of identifying emerging academic concerns before they lead to more serious consequences.

Parent consultation, academic advising, and remediation represent complementary approaches to supporting learners experiencing academic difficulties. Parent involvement strengthens home-school collaboration and is positively associated with learners' achievement, engagement, and motivation (Barger et al., 2019; Kim, 2022). Academic advising and remediation further provide learners with guidance and targeted opportunities to address learning gaps. Within the institutional context, Ortega, Velecina, and Lunar (2021), through their assessment of the Hybrid Education Learning Program of San Pablo Colleges, demonstrated the importance of systematically evaluating educational programs and learning mechanisms as a basis for improving educational delivery and learner support. Such evidence-based interventions are consistent with the institution's NEXUStainability Framework, which integrates quality education, responsive learner support, innovation, and sustainability in pursuing institutional effectiveness. The study likewise contributes to United Nations Sustainable Development Goal 4 (SDG 4): Quality Education, particularly its commitment to inclusive and equitable quality education and improved learning opportunities by ensuring that learners experiencing academic difficulties are identified and provided with appropriate support.

Against this background, the present study comparatively evaluated the academic performance of learners who underwent parent consultation, academic advising, and remediation after being identified as having grade-related concerns, particularly those at risk of receiving grades below 80 and those whose grades could affect their eligibility for the honor roll. Through document analysis, learners' grades before and after intervention were compared, and patterns of academic change across grade levels were examined. Consistent with NEXUStainability and SDG 4, the study seeks to generate institution-specific evidence for strengthening an inclusive, responsive, and sustainable academic support system in which early identification, family engagement, academic guidance, remediation, and progress monitoring work together to help learners improve or sustain their academic performance.

Methods

The study employed a quantitative evaluative research design using document analysis and a pre–post comparative approach to determine changes in the academic performance of learners who underwent parent consultation, academic advising, and remediation. Secondary data were obtained from official school records of learners across grade levels who were identified as having academic concerns, particularly those at risk of obtaining grades below 80

and those at risk of becoming ineligible for the honor roll. Only records with available and comparable grades before and after the intervention were included in the analysis. A researcher-developed document analysis matrix was used to record the learners' coded identification, grade level, category of academic concern, intervention received, pre-intervention grade, post-intervention grade, and corresponding grade change. Frequency, percentage, mean, and standard deviation were used to describe the data, while mean gain scores were computed to determine the direction and magnitude of changes in academic performance. A paired-samples t-test was used to determine significant differences between pre- and post-intervention grades when parametric assumptions were satisfied, with the Wilcoxon signed-rank test used as an alternative when appropriate. Differences in grade changes across grade levels and categories of academic concern were likewise examined using appropriate test of variance. To protect learners' privacy, personally identifiable information was excluded from the analytical dataset, records were treated confidentially, and findings were reported only in aggregate form.

Results and Discussion

Academic Performance of Learners Before and After Parent Consultation, Academic Advising, and Remediation

Table 1 presents the academic performance of learners before and after the implementation of parent consultation, academic advising, and remediation across grade levels. The analysis covered 56 subject-grade records reflected in the submitted academic records.

Table 1. Pre- and Post-Intervention Academic Performance Across Grade Levels

Grade Level	No. of Records	Pre-Intervention Mean	Post-Intervention Mean	Mean Change	General Direction
Grade 1	2	88.00	89.50	+1.50	Improved
Grade 2	2	92.50	90.00	-2.50	Declined
Grade 3	2	93.00	93.50	+0.50	Improved
Grade 4	10	85.10	86.60	+1.50	Improved
Grade 5	31	79.10	80.97	+1.87	Improved
Grade 6	9	77.89	79.33	+1.44	Improved
Overall	**56**	**81.27**	**82.79**	**+1.52**	**Improved**

The findings show an overall improvement in learners' academic performance following the interventions. Across the 56 subject-grade records, the mean grade increased from 81.27 before the intervention to 82.79 after the intervention, representing an average gain **of** 1.52 grade points. Of the 56 records, 31 (55.36%) showed improvement, 18 (32.14%) maintained the same grade, and only 7 (12.50%) registered a decrease. Thus, approximately 87.50% of the records either improved or sustained their previous academic performance following parent consultation, academic advising, and remediation. This pattern provides encouraging descriptive evidence regarding learners' performance after receiving the school's academic support interventions.

Differences, however, were apparent across grade levels. Grade 5 demonstrated the largest mean improvement, increasing from 79.10 to 80.97, or a mean gain of 1.87 points. This finding is particularly noteworthy because Grade 5 also contained the largest number of documented academic concerns and had an initial mean below 80. Among its 31 subject-grade records, 17 improved, 11 were sustained, and only three declined. The increase in the group mean beyond 80 suggests that the interventions may have been particularly meaningful for learners whose initial grades placed them near or below the identified academic threshold. The Grade 5 results therefore illustrate the potential value of intervening while learners still have opportunities to address academic deficiencies before grades become final.

Similarly, Grades 1, 4, and 6 demonstrated positive changes. Grade 1 increased from 88.00 to 89.50, while Grade 4 increased from 85.10 to 86.60, both representing mean gains of 1.50 points. Grade 6 improved from 77.89 to 79.33, with a mean gain of 1.44 points. Although the Grade 6 post-intervention mean remained slightly below 80, none of its nine recorded subject grades declined: four improved while five were sustained. This finding is important because maintaining performance may itself represent a favorable outcome among learners already identified as academically at risk. Academic intervention should therefore not be evaluated exclusively in terms of large increases in grades; preventing further deterioration may also constitute a meaningful outcome.

Grade 3 showed a comparatively modest increase from 93.00 to 93.50. These learners already had relatively high pre-intervention grades, which limited the amount of improvement that could reasonably be expected. In this context, the intervention appears to have served more as a mechanism for **maintaining strong academic standing**, particularly for learners whose concern was possible exclusion from the honor roll rather than academic failure. This demonstrates that the academic support system may serve two related purposes: assisting academically struggling learners and helping relatively high-performing learners maintain the level of achievement required for academic recognition.

In contrast, Grade 2 was the only grade level that demonstrated an overall decline, with the mean decreasing from 92.50 to 90.00. Both recorded subject grades declined, although the resulting grades remained relatively high. This finding should be interpreted cautiously because Grade 2 was represented by only two records. The small number of cases makes the mean highly sensitive to changes in individual grades and does not provide sufficient basis for concluding that the interventions were less effective at this grade level.

Overall, the descriptive findings indicate that the academic performance of learners generally improved or was sustained after parent consultation, academic advising, and remediation. The results are particularly encouraging for learners whose initial performance was near or below the 80-grade threshold, as seen prominently in Grades 5 and 6. At the same time, the findings suggest that the interventions may also have a preventive function for learners at risk of losing honor-roll eligibility by helping them maintain or improve already satisfactory grades.

The generally favorable change in academic performance shown in Table 1 is consistent with literature emphasizing the value of timely and coordinated academic support for learners experiencing academic difficulties. Dietrichson et al. (2020), in a systematic review of targeted school-based interventions, found that structured interventions can improve academic

outcomes among students who have or are at risk of academic difficulties. The involvement of parents in the intervention process may also contribute to positive outcomes because parental involvement promotes communication, monitoring, and support for learners' educational needs. Barger et al. (2019) reported through meta-analysis that parental involvement in schooling is positively associated with students' academic achievement, engagement, and motivation, while Kim (2022) similarly established a positive relationship between parental involvement and academic achievement across a large body of research. Thus, the observed improvement or maintenance of grades among most learners in the present study supports the view that academic difficulties are better addressed through early, coordinated responses involving the learner, school, and family rather than waiting until poor academic outcomes become final.

These findings support the continued use of a proactive academic intervention system in which potentially problematic grades are identified before the end of the grading period, parents are informed and engaged, learners receive individualized academic guidance, and appropriate remediation is provided. Nevertheless, because these results are descriptive, the observed increases should not yet be interpreted as proof that the interventions caused the improvement. The succeeding inferential analysis comparing the pre- and post-intervention grades would determine whether the observed changes are statistically significant and provide stronger evidence regarding the outcomes of the intervention program.

Difference Between Learners' Academic Performance Before and After Parent Consultation, Academic Advising, and Remediation

The second statement of the problem sought to determine whether there was a significant difference between the academic performance of learners before and after parent consultation, academic advising, and remediation. A paired-samples t-test was used because the analysis involved two related measurements—the learners' grades before and after the academic interventions.

Table 2. Difference Between Pre- and Post-Intervention Academic Performance

Academic Performance	N	Mean	SD	Mean Difference	t	df	p-value	Decision
Pre-Intervention	56	81.27	5.93					
Post-Intervention	56	82.79	5.89	+1.52	4.49	55	< .001	Significant

Note: α = .05. Positive mean difference indicates improvement in post-intervention grades.

The results revealed that learners obtained a mean academic performance of 81.27 before the interventions, which increased to 82.79 after parent consultation, academic advising, and remediation. This represents an average improvement of 1.52 grade points. The paired-samples t-test yielded a computed value of $t(55) = 4.49$, $p < .001$, indicating that the difference between the pre- and post-intervention grades was statistically significant. Thus, the null hypothesis stating that there is no significant difference between learners' academic performance before and after the interventions is rejected.

Beyond statistical significance, the calculated effect size was approximately Cohen's $d = 0.60$, representing **a** moderate effect. This finding is important because it indicates that the observed improvement was not merely statistically detectable but was also of a meaningful

magnitude. Considering that the intervention occurred within the regular grading process and involved learners whose academic performance had already been identified as requiring attention, an average increase of approximately 1.5 grade points may represent an educationally relevant improvement, particularly for learners whose grades were close to critical academic thresholds.

The significant increase in post-intervention grades suggests that the combination of parent consultation, academic advising, and remediation was associated with improved academic performance**.** Parent consultation may have strengthened the involvement of parents or guardians by making them aware of emerging academic concerns and enabling them to provide appropriate monitoring and support at home. Academic advising, meanwhile, may have helped learners better understand their academic standing, recognize subjects requiring immediate attention, and respond more deliberately to teachers' expectations. Remediation provided a more direct academic response by allowing identified learning difficulties and deficiencies to be addressed before the subsequent grading period.

The result becomes particularly meaningful when considered in relation to the purpose of the school's intervention mechanism. The learners included in the evaluation were not randomly selected students; rather, they were learners whose grades indicated a need for timely intervention. Some were at risk of receiving grades below 80, while others were approaching grade levels that could result in their exclusion from the honor roll. The significant improvement therefore indicates that identifying learners before the academic concern becomes final or more difficult to address may provide an important opportunity for corrective action.

The findings also reinforce the descriptive results presented in SOP 1. Of the 56 grade records examined, 31 (55.36%) improved, 18 (32.14%) were sustained, and only seven (12.50%) declined after the interventions. Thus, 87.50% either improved or maintained their previous academic performance. When considered together with the statistically significant pre–post difference, these results provide stronger evidence that the intervention period was generally accompanied by favorable academic outcomes.

The statistically significant difference between learners' pre- and post-intervention grades in Table 2 further supports existing evidence concerning the potential benefits of targeted intervention for students experiencing academic difficulty. Snyder et al. (2019), in their systematic review and meta-analysis of interventions for academically underachieving students, found that interventions generally produced positive effects on students' academic and psychosocial outcomes, although the magnitude of effects differed according to intervention characteristics and learner circumstances. Similarly, Dietrichson et al. (2020) demonstrated that targeted school-based approaches can contribute to improved academic achievement among students who are struggling or considered academically at risk. The significant improvement observed in the present study therefore provides local empirical evidence consistent with these broader findings. The findings consequently support the continuation of the interventions while also emphasizing the need for systematic monitoring to establish which components produce the greatest benefits.

Comparison of Changes in Learners' Academic Performance Across Grade Levels

The third statement of the problem examined whether the change in learners' academic performance following parent consultation, academic advising, and remediation differed across grade levels. The comparison was based on the difference between the first- and second-grading-period grades for each documented subject-grade record.

The findings reveal that the pattern of academic change varied across grade levels. Five of the six grade levels demonstrated positive mean changes following the academic interventions. Grade 5 recorded the greatest mean improvement at 1.87 points, followed by Grades 1 and 4, both with gains of 1.50 points, and Grade 6 with a 1.44-point increase. Grade 3 registered a smaller increase of 0.50 point. Grade 2 was the only level that showed a decline, with a mean change of -2.50 points.

Table 3. Comparison of Academic Performance Changes Across Grade Levels

Grade Level	n	Pre-Intervention Mean	Post-Intervention Mean	Mean Change
Grade 1	2	88.00	89.50	+1.50
Grade 2	2	92.50	90.00	-2.50
Grade 3	2	93.00	93.50	+0.50
Grade 4	10	85.10	86.60	+1.50
Grade 5	31	79.10	80.97	+1.87
Grade 6	9	77.89	79.33	+1.44
Overall	**56**	**81.27**	**82.79**	**+1.52**

The result for Grade 5 is particularly notable because this group had a relatively low pre-intervention mean of 79.10 and constituted the largest proportion of the records analyzed. Its post-intervention mean increased to 80.97, moving the group average from below 80 to above the identified academic-risk threshold. This suggests that the interventions may have been especially beneficial among learners who had greater room and need for academic improvement. Parent consultation may have increased home monitoring, academic advising may have helped learners identify subjects requiring immediate attention, and remediation may have provided opportunities to address specific learning deficiencies.

A similar pattern was observed among Grade 6 learners, whose mean increased from 77.89 to 79.33. Although the post-intervention mean remained slightly below 80, the 1.44-point improvement indicates movement toward the desired academic standard. More importantly, none of the nine Grade 6 subject-grade records showed a decline: four improved and five maintained their previous grades. For learners already experiencing academic difficulty, preventing further deterioration while producing improvement in several cases may represent an important outcome of intervention.

Grades 1 and 4 likewise showed favorable changes, each gaining an average of 1.50 points. Grade 4 improved from 85.10 to 86.60, indicating that the potential benefits of the academic support measures were not confined to learners with grades below 80. The interventions may also assist learners whose academic standing remains satisfactory but whose performance requires monitoring to preserve their academic status, including eligibility for honors.

In Grade 3, the relatively small gain of 0.50 point should be viewed in relation to its already high baseline mean of 93.00. Learners beginning with high grades have less opportunity for substantial numerical improvement because of the upper limit of the grading scale. Thus, sustaining or slightly improving an already high level of performance may itself represent a favorable outcome, particularly for learners receiving intervention because of possible exclusion from the honor roll.

Grade 2 exhibited a different pattern, decreasing from 92.50 to 90.00. However, this finding should not be interpreted as evidence that the interventions were ineffective for Grade **2**. Only two subject-grade records were available for this level, making the mean highly sensitive to individual changes. Furthermore, despite the decreases, the post-intervention grades remained relatively high at 88 and 92. The decline therefore did not place these learners within the below-80 academic-risk category.

Taken collectively, the results indicate that the academic support interventions were followed by generally favorable performance patterns across most grade levels, although the magnitude of change was not uniform**.** The strongest descriptive gains were observed among Grades 5 and 6, which also had comparatively lower baseline performance. In contrast, grade levels beginning with higher academic performance generally demonstrated smaller gains or, in the case of Grade 2, a decline while still maintaining relatively high grades.

The variation in academic gains across grade levels shown in Table 3 is also consistent with research indicating that the outcomes of academic interventions are not necessarily uniform among learners. Snyder et al. (2019) noted that intervention effectiveness may vary according to learner and intervention characteristics, suggesting that academic support should be responsive to students' particular circumstances rather than implemented as a uniform strategy. The findings may also be understood in relation to learners' initial academic standing: students beginning with lower grades have greater opportunity to demonstrate numerical gains, whereas learners already performing at relatively high levels may show smaller increases because their grades are closer to the upper limits of the grading scale. Moreover, Kim (2022) and Barger et al. (2019) demonstrated that the relationship between parental involvement and academic outcomes is influenced by the nature and context of parental participation. The differences observed across grade levels therefore reinforce the importance of differentiated academic intervention**,** in which remediation, advising, parent consultation, and progress monitoring are adjusted according to learners' grade level, baseline performance, and specific academic risk rather than applying identical intervention expectations to all learners.

These findings point to the importance of considering learners' initial academic standing when evaluating intervention outcomes**.** A uniform expectation of grade increase may not adequately capture the value of parent consultation, academic advising, and remediation. For academically at-risk learners, success may be reflected in moving toward or beyond the 80-grade threshold; for learners at risk of losing honor-roll eligibility, success may instead involve maintaining already high academic performance. Thus, the school may consider a differentiated academic intervention framework in which the goals and measures of success are aligned with the specific academic risk experienced by the learner.

Conclusion

Based on the foregoing findings the following conclusions are drawn:

1. Learners demonstrated an improvement in academic performance following the interventions, with the mean grade increasing from 81.27 before intervention to 82.79 after intervention, equivalent to an average gain of 1.52 grade points. More than half of the grade records showed improvement, while a considerable proportion maintained their previous performance. Taken together, 87.50% of the records either improved or sustained their grades, indicating that academic decline after intervention occurred only among a relatively small proportion of the records examined. These findings suggest that timely identification of academic concerns followed by coordinated support may contribute to the improvement or maintenance of learners' academic standing.

2. The comparison of pre- and post-intervention performance further showed a statistically significant improvement, indicating that the difference observed between the two periods was unlikely to have occurred by chance. The moderate effect size likewise suggests that the magnitude of improvement was educationally meaningful. Thus, the findings provide empirical support for continuing parent consultation, academic advising, and remediation as components of the school's academic support system. However, because the study did not employ a control group and the interventions were generally implemented as a combined support mechanism, the improvement cannot be attributed exclusively to any single intervention.

3. Across grade levels, the direction and magnitude of change varied. Most grade levels demonstrated improvement, with Grade 5 recording the greatest mean gain, followed by Grades 1, 4, and 6. Particularly noteworthy were Grades 5 and 6, which had comparatively lower baseline grades yet demonstrated positive changes after intervention. Grade 3 showed only a slight increase but maintained an already high level of academic performance, while Grade 2 registered a decline despite maintaining relatively high post-intervention grades. The very small number of records in some grade levels, however, requires cautious interpretation of these comparisons.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are proposed:

1. The school should establish a systematic early-warning mechanism that identifies learners approaching critical academic thresholds before the end of each grading period. Particular attention may be given to learners approaching grades below 80 and those whose declining performance may affect their eligibility for academic honors.

2. Considering the significant improvement in pre- and post-intervention performance, these academic support practices should be sustained as integral components of the school's learner support system. Clear procedures should specify when intervention is initiated, who participates, what actions are undertaken, and how learner progress is monitored.

3. Learners at risk of receiving grades below 80 may require more intensive remediation, competency reinforcement, study support, and progress monitoring. In contrast, learners at risk of losing honor-roll eligibility may benefit more from targeted academic advising, performance monitoring, study planning, and focused assistance in specific subjects.

4. A standardized monitoring form or digital database may be developed to record the learner's initial academic concern, baseline grade, intervention provided, date and frequency of intervention, parent involvement, teacher recommendations, remediation activities, and subsequent academic performance. This will facilitate continuous monitoring and future program evaluation.

5. The favorable changes observed particularly among Grades 5 and 6 suggest the importance of intensive intervention for learners whose grades are already near or below the academic-risk threshold. Teachers and academic advisers should closely monitor whether these learners continue to improve in succeeding grading periods.

6. The school should determine whether improvements are sustained during subsequent grading periods. Continued monitoring would distinguish short-term grade recovery from more sustained improvement in academic performance.

7. Intervention data should be periodically reviewed by teachers, advisers, coordinators, and school administrators to identify recurring subjects, competencies, grade levels, or academic concerns requiring broader curricular or instructional responses.

8. Subsequent studies should document parent consultation, academic advising, and remediation separately whenever possible to determine their individual and combined contributions to learner outcomes. Future research may also include larger and more balanced samples across grade levels, comparison groups, longer follow-up periods, and other indicators such as attendance, completion of academic requirements, study behaviors, and learner engagement.

References

Allic, C., & Lunar, B. (2024). Understanding patterns, quantifying relationships, and predicting the future with mathematics in the modern world: Inputs to pedagogical innovation. *Education & Learning Developing Nations*, *2*(1), 1-3

Barger, M. M., Kim, E. M., Kuncel, N. R., & Pomerantz, E. M. (2019). The relation between parents' involvement in children's schooling and children's adjustment: A meta-analysis. *Psychological Bulletin, 145*(9), 855–890. https://doi.org/10.1037/bul0000201

Dietrichson, J., Filges, T., Klokker, R. H., Viinholt, B. C. A., Bøg, M., & Jensen, U. H. (2020). Targeted school-based interventions for improving reading and mathematics for students with, or at risk of, academic difficulties in Grades 7–12: A systematic review. *Campbell Systematic Reviews, 16*(2), e1081.

Kim, S. (2022). Fifty years of parental involvement and achievement research: A second-order meta-analysis. *Educational Research Review, 37*, 100463.

Ortega, A. , Velecina, J. & Lunar, B. C. (2021). Assessment of the Hybrid Education Learning Program (HELP) of the AHEAD Learning Platform of San Pablo Colleges. *JPAIR Institutional Research Journal, 16*(1), 0.

Snyder, K. E., Fong, C. J., Painter, J. K., Pittard, C. M., Barr, S. M., & Patall, E. A. (2019). Interventions for academically underachieving students: A systematic review and meta-analysis. *Educational Research Review, 28*, 100294. https://doi.org/10.1016/j.edurev.2019.100294

INNOVATION-LED TRANSFORMATION OF GRADUATE EDUCATION: A CASE STUDY OF SAN PABLO COLLEGES

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San Pablo Colleges

Abstract

This study examined the innovation-driven transformation of graduate education at San Pablo Colleges (SPC), focusing on how institutional innovations have shaped the experiences of graduate students and contributed to a more responsive, flexible, and sustainable educational environment. Anchored in the institutional NEXUStainability Framework and aligned with the United Nations Sustainable Development Goals (SDGs), particularly SDGs 4, 9, and 17, the study employed a descriptive mixed-methods case study design. Data were gathered from 148 graduate students through a survey containing quantitative indicators and open-ended questions. Quantitative data were analyzed using descriptive statistics, while qualitative responses were subjected to thematic analysis. Findings revealed a highly favorable overall assessment of innovation-driven graduate education (M = 3.57). Curriculum and course offerings and overall satisfaction received the highest ratings (M = 3.65), followed by professional development and linkages (M = 3.62), while technology integration obtained the lowest rating (M = 3.34), identifying an area for further enhancement. Qualitative findings generated five major themes: relevant and responsive graduate education, flexible and innovative learning, research and professional transformation, technology-enabled education, and continuous innovation and improvement. The findings demonstrate that innovation at SPC extends beyond digitalization and encompasses curriculum responsiveness, learning flexibility, research, professional development, and institutional linkages. The study concludes that SPC Graduate School is progressively moving from traditional graduate education toward an integrated, learner-centered, innovation-driven, and sustainability-oriented model. Continued investment in digital resources, research support, flexible learning, partnerships, and systematic assessment of innovation outcomes is recommended to sustain this transformation.

Keywords: Graduate Education, Educational Innovation, Institutional Transformation, Nexustainability, Sustainable Development

Introduction

Graduate education has increasingly evolved from its traditional role of providing advanced academic credentials toward becoming an important platform for innovation, research, professional development, leadership, and sustainable institutional transformation. Higher education institutions are now expected to respond to rapid technological advancement, changing professional demands, globalization, and sustainability challenges while maintaining academic quality and relevance. The Organization for Economic Co-operation and Development (OECD, 2023) emphasizes the important role of higher education in developing the competencies and innovations required for digital and green transitions. Similarly, UNESCO (2021) calls for educational institutions to rethink their roles in knowledge creation, collaboration, inclusion, and the development of sustainable futures. Within this changing environment, graduate schools are challenged to preserve valuable academic traditions while adopting innovations that make advanced education more responsive, accessible, and relevant.

Innovation in higher education encompasses more than the adoption of technology. It includes changes in curriculum, teaching and learning, research, quality assurance, professional development, institutional governance, partnerships, and community engagement. Castro Benavides et al. (2020) describe digital transformation in higher education as a multidimensional process involving technology, organizational structures, strategies, processes, and people. At San Pablo Colleges (SPC), earlier institutional research has similarly demonstrated that educational innovation involves interconnected initiatives rather than isolated technological interventions. Lunar and Eala (2023), in examining educational innovation initiatives at SPC, documented the institution's efforts to respond to emerging educational demands through innovations in academic and institutional practices. Their study highlighted the importance of continuously examining where the institution stands and where its innovation efforts should lead, thereby framing innovation as an evolving process of institutional improvement.

The transformation of graduate education at SPC is also situated within the institution's NEXUStainability Framework**,** which connects educational quality and institutional development with sustainability. This orientation is supported by Lunar, Eala, and Perez (2025), who examined sustainability initiatives at SPC and demonstrated how such initiatives can function as drivers of institutional effectiveness. Their findings reinforce the premise that sustainability should not be treated as a separate institutional undertaking but should be integrated into academic, administrative, research, and community-oriented initiatives. In graduate education, this means developing programs and practices that not only respond to current learner and professional needs but also contribute to the institution's capacity for long-term relevance and sustainable development.

Quality assurance represents another important component of this transformation. Lunar, Perez, and Eala (2024), in their investigation of quality assurance practices, processes, and perspectives at SPC, underscored the relationship between quality assurance and institutional sustainability. Their work suggests that quality systems can serve not merely as mechanisms for compliance but as foundations for continuous improvement and sustainable institutional development. Applied to graduate education, this perspective positions quality assurance as an enabling mechanism through which curriculum innovation, flexible learning,

research development, digitalization, and professional engagement can be systematically monitored and strengthened.

These institutional directions also correspond with the United Nations Sustainable Development Goals (SDGs). Graduate education directly advances SDG 4 (Quality Education) through accessible, relevant, and advanced learning opportunities; supports SDG 9 (Industry, Innovation and Infrastructure) through research, innovation, and technology integration; and contributes to SDG 17 (Partnerships for the Goals) through academic, professional, community, and international collaboration. UNESCO (2020) further emphasizes that education for sustainable development should develop the knowledge, competencies, values, and capacities necessary for transformative action. The integration of NEXUStainability and the SDGs therefore provides SPC Graduate School with a broader framework in which innovation is connected with institutional effectiveness and societal responsibility.

Against this backdrop, the present study, examines how innovation is manifested and experienced within SPC Graduate School. Building upon earlier SPC studies, the present investigation focuses specifically on graduate education and the experiences of its learners. It examines innovation in curriculum and course offerings, teaching and flexible learning, research and mentorship, technology integration, professional development and linkages, and the overall graduate education experience. Anchored in NEXUStainability and aligned with the SDGs, the study seeks to demonstrate how SPC Graduate School is progressively moving from established academic traditions toward a responsive, innovative, quality-driven, and sustainability-oriented model of graduate education.

Methods

This study employed a descriptive mixed-methods case study design to examine the innovation-driven transformation of graduate education at San Pablo Colleges from the perspectives of its graduate students. A total of 148 graduate students from the different graduate programs participated in the study through a survey questionnaire consisting of demographic questions, quantitative indicators, and open-ended questions. The quantitative component assessed students' perceptions of innovation across major areas of graduate education, including curriculum and course offerings, innovative teaching and flexible learning, research and mentorship, technology integration, professional development and linkages, quality assurance, and overall satisfaction with innovation-driven graduate education. Responses to the quantitative indicators were analyzed using frequency, percentage, weighted mean, and ranking to determine the respondents' profile and the perceived extent of innovation in each area. The qualitative component consisted of open-ended questions that allowed participants to describe their experiences concerning curriculum relevance, learning modalities, research and mentorship, technology integration, transformational impact, and suggested improvements. These responses were subjected to thematic analysis to identify recurring ideas and patterns that contextualized and enriched the quantitative findings. The interpretation of the findings was further situated within San Pablo Colleges' NEXUStainability Framework and relevant United Nations Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education), SDG 9 (Industry, Innovation and Infrastructure), and SDG 17 (Partnerships for the Goals), thereby examining graduate education transformation not only in terms of institutional innovation but also in relation to quality, sustainability, and broader societal development.

Results and Discussion

Table 1 shows that the graduate students generally held a highly favorable perception of innovation in graduate education at San Pablo Colleges, as indicated by the overall mean of **3.57**. All dimensions received favorable assessments, suggesting that the transformation of graduate education is evident across curriculum, teaching and learning, research, technology, professional development, and the overall student experience. This supports the view that innovation in higher education should be understood as a multidimensional process involving not only technology but also academic practices, organizational processes, people, and institutional structures (Castro Benavides et al., 2020).

Table 1. Summary of Quantitative Findings

Dimension of Innovation	Mean	Interpretation
Curriculum and Course Offerings	3.65	Strongly Agree
Innovative Teaching and Flexible Learning	3.57	Strongly Agree
Research and Mentorship	3.58	Strongly Agree
Technology Integration	3.34	Strongly Agree
Professional Development and Linkages	3.62	Strongly Agree
Overall Satisfaction	3.65	Strongly Agree
Overall Mean	**3.57**	**Highly Favorable**

Among the dimensions, **Curriculum and Course Offerings** and **Overall Satisfaction** obtained the highest means of **3.65**, followed closely by **Professional Development and Linkages (M = 3.62)**. The high assessment of curriculum suggests that students perceive their graduate programs as responsive to contemporary professional and academic demands. This is particularly important in graduate education, where curriculum must remain relevant to changing workplace expectations and emerging knowledge. The OECD (2024) emphasizes that curriculum flexibility is an important characteristic of future-oriented education because it allows educational programs to adapt learning content, pedagogies, assessment, and learning opportunities to diverse and evolving needs. The similarly high rating for professional development and linkages indicates that students perceive graduate education at SPC as contributing beyond academic advancement toward professional growth and connections with broader communities of practice.

Research and Mentorship (M = 3.58) and **Innovative Teaching and Flexible Learning (M = 3.57)** were likewise evaluated positively. These results are significant considering that graduate education is expected to develop advanced inquiry, independent learning, and professional competence. Flexible learning is particularly relevant to graduate students who must often combine education with employment and other responsibilities. UNESCO identifies flexible learning pathways as an important component of contemporary higher education and SDG 4, emphasizing that flexibility can widen access, facilitate progression, and strengthen the capacity of education systems to respond to changing learner circumstances. Technology-enhanced and blended learning can further increase flexibility by allowing learners greater choice regarding where and how learning takes place.

Although still favorably assessed, **Technology Integration received the lowest mean (M = 3.34)**. This finding suggests that technology represents the most evident area for further development within the institution's transformation efforts. Digital transformation in higher education requires more than providing technological platforms; it involves infrastructure, digital competencies, learning support, institutional processes, and the effective integration of technology into educational practices. Castro Benavides et al. (2020) similarly found that digital transformation in higher education is complex and requires technological, organizational, and social dimensions to operate together. UNESCO also notes that while technology-enhanced learning can expand flexibility and participation, its effectiveness can be constrained by infrastructure, connectivity, access, and digital skills. Thus, the comparatively lower rating should be viewed as an opportunity to strengthen digital resources, platforms, user support, and technology-enabled learning rather than as an indication of an unfavorable student experience.

Overall, the findings provide empirical support for the study's characterization of SPC Graduate School as moving from tradition to transformation. Innovation appears strongest in curriculum responsiveness, professional development, and overall student experience, while technology integration remains an area requiring continued attention. These developments are consistent with the institution's NEXUStainability Framework**,** wherein quality education, technology advancement, research, professional development, and institutional linkages are treated as interconnected components of sustainable educational transformation. They likewise contribute to SDG 4 (Quality Education) through relevant and flexible graduate learning, SDG 9 (Industry, Innovation and Infrastructure) through technology and innovation**,** and SDG 17 (Partnerships for the Goals) through professional and institutional linkages. The results therefore suggest that the transformation of graduate education at SPC is not simply a shift toward digitalization but a broader movement toward a more responsive, flexible, research-oriented, professionally relevant, and sustainability-driven graduate education system.

The qualitative responses revealed **five major themes** that describe how graduate students experience innovation and transformation at San Pablo Colleges. Table 2 presents the qualitative findings on graduate students' experiences and perceptions of innovation at San Pablo Colleges.

Table 2. Summary of Qualitative Findings

Major Theme	Key Findings
1. Relevant and Responsive Graduate Education	Curriculum was perceived as current, professionally relevant, research-oriented, and applicable to workplace needs.
2. Flexible and Innovative Learning	Online and blended modalities enabled working professionals to pursue graduate studies while balancing employment and personal responsibilities.
3. Research and Professional Transformation	Graduate education strengthened research competence, critical thinking, leadership, confidence, and career readiness.
4. Technology-Enabled Education	Digital platforms supported learning and communication, although concerns regarding access, awareness, e-library resources, and platform utilization were identified.

5. Continuous Innovation and Improvement	Students recommended stronger research support, improved digital services, more efficient academic processes, expanded partnerships, and sustained flexible learning arrangements.

Five major themes emerged: Relevant and Responsive Graduate Education, Flexible and Innovative Learning, Research and Professional Transformation, Technology-Enabled Education, and Continuous Innovation and Improvement. Collectively, these themes indicate that students perceive innovation not merely as the introduction of technology but as a broader transformation involving curriculum relevance, learning flexibility, research development, professional growth, and continuous institutional improvement. This multidimensional understanding is consistent with Castro Benavides et al. (2020), who explained that transformation in higher education encompasses technology, organizational processes, institutional strategies, stakeholders, and changing educational practices.

The theme Relevant and Responsive Graduate Education reflects students' recognition of curricula that are current, research-oriented, professionally relevant, and applicable to workplace demands. This finding suggests that the perceived transformation of graduate education at SPC is grounded partly in its ability to connect advanced academic learning with contemporary professional practice. Such responsiveness is consistent with the OECD's (2024) emphasis on curriculum flexibility and adaptability as important characteristics of education systems seeking to respond to changing learner, societal, and labor-market needs. Graduate education becomes particularly meaningful when students can transfer advanced knowledge and competencies from the classroom to their respective professional contexts.

Flexible and Innovative Learning likewise emerged prominently, particularly through students' appreciation of online and blended learning arrangements that allow them to combine graduate studies with employment and other responsibilities. This finding is especially relevant to graduate education, which commonly serves adult and working learners. UNESCO's International Institute for Educational Planning recognizes flexible learning pathways as important mechanisms for improving access and responsiveness in higher education, particularly by accommodating different learner circumstances and providing alternative ways of participating in and completing higher education. Thus, flexibility at SPC may be viewed not merely as a matter of convenience but as an innovation that promotes greater accessibility and continuity of graduate education.

The third theme, Research and Professional Transformation, demonstrates that students perceive the benefits of graduate education at a more personal and professional level. Respondents associated their graduate experiences with improved research competence, critical thinking, leadership, confidence, and career readiness. This is an important finding because it suggests that transformation occurs not only within institutional systems but also among the learners themselves. UNESCO (2021) argues that higher education should contribute to the development of knowledge, critical inquiry, cooperation, and the capacity of individuals to participate meaningfully in shaping their professions and societies. The findings therefore indicate that SPC's innovation efforts contribute to developing graduate students who are better prepared to assume advanced professional and leadership responsibilities.

The theme Technology-Enabled Education, meanwhile, reveals both the benefits and continuing challenges associated with digital transformation. Students acknowledged the usefulness of digital platforms in facilitating learning and communication but also identified concerns involving access, awareness, electronic library resources, and effective utilization of available platforms. This finding complements the quantitative result in which technology integration received the comparatively lowest rating. Castro Benavides et al. (2020) emphasize that successful digital transformation cannot be achieved merely through the acquisition of technologies; institutions must also address competencies, processes, organizational support, and stakeholder engagement. Consequently, strengthening orientation, digital support, online library accessibility, and utilization of institutional platforms represents an important next stage in SPC's transformation.

Finally, Continuous Innovation and Improvement emerged from students' recommendations for stronger research support, better digital services, more efficient academic processes, expanded partnerships, and sustained flexible learning arrangements. Rather than indicating dissatisfaction with innovation, these suggestions demonstrate that transformation is perceived as an ongoing institutional process rather than a completed undertaking. UNESCO's Education for Sustainable Development framework similarly emphasizes transformative learning and continuing institutional change as essential to building education systems capable of responding to future challenges.

Taken together, the qualitative findings reinforce the study's central idea of movement from tradition to transformation. The transformation experienced by graduate students appears to follow an interconnected progression from relevant curriculum and flexible learning to research and professional development, technology-enabled education, and continuous institutional improvement. These themes strongly resonate with SPC's NEXUStainability Framework, particularly its emphasis on quality education, research and innovation, technology advancement and digitalization, professional and community engagement, and sustainability. They also demonstrate contributions to SDG 4 (Quality Education) through responsive and flexible learning, SDG 9 (Industry, Innovation and Infrastructure) through research and technological advancement, and SDG 17 (Partnerships for the Goals) through expanded professional and institutional linkages. The qualitative evidence therefore suggests that innovation at SPC Graduate School is best understood as a holistic process that transforms not only educational structures and practices but also the professional capacities and experiences of its graduate learners.

Implications

The findings suggest that the transformation of graduate education at San Pablo Colleges is characterized by the integration of curriculum responsiveness, flexible learning, research and mentorship, professional development, institutional linkages, and technology-enabled education. The highly favorable overall assessment indicates that these innovations are generally responsive to the needs of graduate students, particularly working professionals. More importantly, the qualitative findings show that innovation is experienced not only through changes in institutional practices but also through improvements in students' professional competence, research capability, critical thinking, leadership, confidence, and career readiness. Thus, the movement from tradition to transformation reflects both institutional and learner transformation.

The findings also have implications for the continuing implementation of the NEXUStainability Framework. Graduate education can serve as an important institutional platform where quality management, research and innovation, technology advancement, professional engagement, community involvement, and sustainability converge. In particular, the results reinforce SPC's contribution to SDG 4 (Quality Education) through accessible, flexible, and professionally relevant graduate programs; SDG 9 (Industry, Innovation and Infrastructure) through research, digitalization, and innovative academic practices; and SDG 17 (Partnerships for the Goals) through professional, community, institutional, and international linkages. Innovation in graduate education should therefore continue to be viewed not as a collection of isolated projects but as part of an integrated institutional strategy for sustainable educational development.

At the same time, the comparatively lower assessment of technology integration indicates an important area for improvement. While digital platforms and flexible modalities have expanded access to graduate education, greater attention should be given to the accessibility and utilization of the learning management system, electronic library resources, online databases, and other digital services. Technology investment should consequently be accompanied by orientation, technical support, faculty and student capability building, and systematic evaluation of digital resources.

Future Directions

Moving forward, San Pablo Colleges Graduate School may build upon its existing innovations by developing a more systematic innovation-driven graduate education agenda anchored in NEXUStainability. Priority may be given to strengthening digital learning infrastructure and electronic resources, expanding research mentorship and publication opportunities, sustaining flexible and blended learning, improving academic and administrative processes, and establishing stronger local and international academic, industry, and professional partnerships. Emerging technologies, including artificial intelligence and research-support technologies, may also be responsibly integrated into instruction, research, assessment, and graduate school services while maintaining academic integrity and ethical standards.

Future initiatives should also increasingly document the outcomes and impact of innovations rather than focusing solely on their implementation. Graduate School innovations may be evaluated in terms of student learning, research productivity, publication and presentation outputs, professional advancement, stakeholder satisfaction, community impact, international engagement, and contributions to the SDGs. Establishing measurable indicators would enable the Graduate School to determine which innovations should be sustained, enhanced, replicated, or redesigned.

Finally, future research may undertake longitudinal and comparative studies to determine how perceptions and outcomes of graduate education transformation change over time and differ across programs, cohorts, and stakeholder groups. Perspectives of faculty members, alumni, administrators, employers, and institutional partners may also be incorporated to provide a more comprehensive assessment. The findings of the present study may ultimately serve as the empirical foundation for developing an SPC Innovation-Driven Graduate Education Transformation Model, integrating academic quality, flexibility, research, digitalization, professional development, partnerships, and sustainability. Such a model could

guide the continuing transformation of SPC Graduate School while providing a potentially adaptable framework for other higher education institutions seeking to preserve valuable academic traditions while responding innovatively and sustainably to the changing demands of graduate education.

References

Castro Benavides, L. M., Tamayo Arias, J. A., Arango Serna, M. D., Branch Bedoya, J. W., & Burgos, D. (2020). Digital transformation in higher education institutions: A systematic literature review. *Sensors, 20*(11), 3291

International Commission on the Futures of Education. (2021). *Reimagining our futures together: A new social contract for education*. United Nations Educational, Scientific and Cultural Organization.

Lunar, B. C., & Eala, M. S. M. (2023). Where are we and where are we going: Educational innovation initiatives in San Pablo Colleges. *Education, Sustainability & Society*, *6*(2), 72-75.

Lunar, B. C., Eala, C. M. & Perez, A. D. (2025). Sustainability Initiatives as Drivers of Institutional Effectiveness: Insights from San Pablo Colleges. *Journal of Interdisciplinary Perspectives, 3*(5), 52-62.

Lunar, B. C., Perez, A., & Eala, C. (2024). Probing practices, processes, and perspectives on quality assurance: Towards institutional sustainability. *BUSINESS, ORGANIZATIONS AND SOCIETY: ZIbeline International Publishing*, *2*(2), 75-84.

Martin, M., & Furiv, U. (2022). *SDG-4: Flexible learning pathways in higher education—From policy to practice: An international comparative analysis*. UNESCO International Institute for Educational Planning.

Organisation for Economic Co-operation and Development. (2023a). *Education and innovation for the digital and green transitions: How higher education can support effective curricula in schools* (OECD Education Policy Perspectives No. 81). OECD Publishing.

Organisation for Economic Co-operation and Development. (2023b). *Education and innovation for the digital and green transitions: How higher education can support teachers and school leaders* (OECD Education Policy Perspectives No. 82). OECD Publishing.

Organisation for Economic Co-operation and Development. (2023c). *Shaping digital education: Enabling factors for quality, equity and efficiency*. OECD Publishing.

Organisation for Economic Co-operation and Development. (2024). *Curriculum flexibility and autonomy: Promoting a thriving learning environment*. OECD Publishing.

Organisation for Economic Co-operation and Development & European Commission. (n.d.). *HEInnovate: Supporting entrepreneurship and innovation in higher education*. OECD.

United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. United Nations.

United Nations Educational, Scientific and Cultural Organization. (2020). *Education for sustainable development: A roadmap*. UNESCO.

United Nations Educational, Scientific and Cultural Organization. (2021). *Reimagining our futures together: A new social contract for education*. UNESCO.

United Nations Educational, Scientific and Cultural Organization, Institute for Lifelong Learning. (2022). *The contribution of higher education institutions to lifelong learning*. UNESCO Institute for Lifelong Learning.

MGA SULIRANIN AT HAMON SA PAGTUTURO NG FILIPINO SA SENIOR HIGH SCHOOL: BATAYAN SA PAGPAPABUTI NG KAGAMITANG PAMPAGTUTURO

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Abstrak

Ang pananaliksik na ito ay nakatuon sa Mga Suliranin at Hamon sa Pagtuturo ng Filipino sa Senior High School. Upang magsilbing batayan sa pagbuo ng kagamitang pampagturo. Ginamit ang deskriptibong disenyo ng pananaliksik na nilahukan ng sampung (10) guro sa Filipino mula sa Taytay District 1 na binigyan ng talanungan. Nalaman sa datos na ang pangunahing suliranin ng mga guro ay kakaunti o hindi sapat ang makabagong kagamitang panturo na maaaring gamitin sa klase na nakuha ng mean na 4.00 na may interpretasyon na sumasang-ayon. Hindi sapat ang oras upang lubos na matalakay ang lahat ng aralin na may mean na 4.30 na ang interpretasyon ay lubos na sumasang-ayon. Kailangan ng karagdagang pagsasanay sa paggamit ng mga makabagong estratehiya sa pagtuturo na ang mean ay 4.40 na amg interpretasyon sy ubos na sumasang-ayon. Kulang ang oras para sa paghahanda ng mga kagamitang pampagtuturo. Na ang mean ay 4.10 na may interpretasyong sumasang-ayon. Kailangan ng mas maraming gawaing panggramatika upang mapaunlad ang kanilang kasanayan na ang mean ay 4.40 na lubos na sumasang-ayon. Maraming mag-aaral ang may kahinaan sa wastong paggamit ng gramatika. Maraming mag-aaral ang may kahinaan sa wastong paggamit ng gramatika na may mean na 4.30 na lubos na sumasang-ayon. Nahihirapan ang mga mag-aaral na unawain ang ilang salitang Filipino na may mean na 4.00 na sumasang-ayon. Lumabas sa ag-aaral na ito na ang epekto ng mga suliranin at hamong ito ay ang naaapektuhan ng mga suliraning ito ang kalidad ng pagtuturo, bumaba ang pagganap ng mga mag-aaral dahil sa mga hamong ito na parehong may 3.70 na mean o pagsang-ayon. Naaapektuhan ang akademikong pagganap ng mga mag-aaral na may 3.60 na mean at nababawasan ang interes ng mga mag-aaral sa asignaturang Filipino na may 3.50 na mean. Nabatid rin ng pag-aaral na ito na upang matugunan ang hamon at mga suliranin ng mga guro sa asignaturang Filipino ay kinakailangan na ng mga kagamitang panturo o interbensyon tulad ng mga Grammar Activity Worksheets, Vocabulary Materials, Reading Modules, e-books at online references na kahit saan at kailangan ay maari nilang basahin. Ang pag-aaral na ito ay may malaking kontribusyon sa mga guro at administration upang matagumpay na masolusyunan ang mga hamon at suliraning kinakaharap ng mga gurong nagtuturo ng asignaturang Filipino.

Mga Susing Salita: Pagtuturo ng Asignaturang Filipino, Kagamitang Panturo, Gramatika, Bokabularyo, Balirala

Panimula

Ang asignaturang Filipino ay may mahalagang ginagampanan sa paghubog ng mga mag-aaral. Ito ay naglalayong malinang ang kasanayan ng mga mag-aaral sa komunikasyon, kritikal na pag-iisip, at pagpapahalaga sa kulturang Pilipino. Department of Education (2021). Kabilang sa mga asignaturang Filipino sa Senior High School ang Komunikasyon at Pananaliksik sa Wika at Kulturang Filipino, Pagbasa at Pagsusuri ng Iba't Ibang Teksto Tungo sa Pananaliksik, at Filipino sa Piling Larang. Department of Education (2016).

Ayon din kay Lumbera (2016), mahalaga ang asignaturang Filipino sa pagpapanatili ng kulturang Pilipino at pagpapalawak ng kamalayang pambansa ng mga mag-aaral. Subalit sa kabila ng mga kahalagahan nito ay patuloy na nararanasan ng mga guro ang mga hamon at suliranin sa Pagtuturo ng Filipino sa Senior High School. Kabilang dito ang impluwensiya ng teknolohiya, pabago-bagong kurikulum, oras at workloads ng mga guro, limitadong sanggunian, makabagong kagamitang pampagtuturo, paggamit ng wikang banyaga sa paggamit ng wikang Pilipino at kakulangan sa interest ng mga mag-aaral, dahil dito maraming mga Filipino mag-aaral ang hindi na marunong gumamit ng kanilang sariling wika dahil sa impluwensiya ng wikang Ingles.

Ayon sa pananaliksik ni Pablo et al. (2018), may kahinaan ang mga mag-aaral sa larangan ng pagsulat ng sanaysay gamit ang wikang Filipino. Kasama rin dito ang kahinaan ng mag-aaral sa paggamit ng mga tamang salita, idyoma, bokabulary at pagbuo ng pangungusap. Sa Dapitan City, natuklasan na karamihan sa mga mag-aaral ay nahihirapan sa asignaturang Filipino dahil sa mas komportable at sanay ang mga mag-aaral sa wikang Ingles at Bisaya (Lim, 2018). Maraming mag-aaral ang walang interes sa asignaturang Filipino, nahihiya silang magsalita gamit ang wikang Filipino na nagdudulot sa kanila ng mababang marka (Taeza, 2020). Sa Quezon, lumabas sa pag-aaral na may mababang kakayahan ang mga mag-aaral sa Asignaturang Filipino na kung saan kailangan pang ituro sa mga mag-aaral ang mga makabuluhang aral upang mabigyang halaga ang wikang Filipino (Bataller et.al.,2019). Ang estratehiya sa pagtuturo ay isa rin sa mga salik na nakaaapekto sa pagkatuto ng mga mag-aaral sa asignaturang Filipino. Ang kahusayan sa pagtuturo ay mahalagang impluwensiya sa partisipasyon ng mga estudyante sa loob ng klasrum (Zhang, 2020). Dagdag pa rito ang pagbabago ng Kurikulum Ayon kay Estrallado, (2023) ang ilang pagbabago sa kurikulum ay mabilis at biglaan, maaaring mikro at saklaw ng pambansang antas o maaaring tawaging makro. Ang mga guro, na tumutugon sa pananaliksik sa pagtuturo at nagbabagong mga pangangailangan ng mag-aaral, ay maaaring magdulot ng mga pagbabagong mikro sa paraan ng pagtuturo at mga materyales. Kaugnay nito Karamihan sa mga guro ay lubos na hinahamon ng kakulangan ng mga mapagkukunan, paghawak ng mga mag-aaral, at ang pagsusumite at mga workload na nag-aambag sa stress at burnout (Robosa, 2021).

Dahil dito nais ng mananaliksik na malaman ang Mga Suliranin at Hamon sa Pagtuturo ng Filipino sa Senior High School batay sa: Kagamitang pampagtuturo, Kurikulum, Estratehiya sa pagtuturo, Oras at load ng guro, Kasanayan ng mga mag-aaral sa gramatika at wastong paggamit ng wika at Kahirapan ng mga mag-aaral sa pag-unawa ng mga salita at tekstong Filipino. At malaman ang epekto ng mga suliraning ito sa pagkatuto at pagtuturo ng mga guro at kung anu-anong mga mungkahing kagamitan pangturo ang maaring gamitin upang matugunan ang mga suliranin at hamon.

Ang pag-aaral na ito ay naglalayong makatulong sa pagpapahusay ng epektibong pagtuturo at pagkatuto ng asignaturang Filipino sa Senior High School.

Methods

Ang pag-aaral na ito ay may disenyong diskriptibong pananaliksik na binubo ng sampung (10) respondenteng guro ng Filipino sa Senior high School mula sa Taytay District 1. Ang mga respondente ay nagmula sa mga paaralan ng Central Taytay Senior High School Stand-Alone, Pamantolon National High School, Canique National High School, Sandoval National High School at Casian National High School. Gumamit ang pananaliksik na ito ng purposive at convenient sampling at instrumenting online sarbey kwetyoneyr sa malalayo at printed o pisikal na talatanungan sa mga malalapit na respondente.

Bago mangalap ng datos ay huminge ng pahintulot ang mananaliksik sa kagalang-galang na School Division Superintendent ng Palawan, Public Schools District Supervisor ng Taytay 1 at mga punong guro na sakop ng Taytay District 1 na mayroong Senior High School, upang maisagawa ang pag-aaral.

Result and Discussion

Talahanayan 1

Paaralan

Paaralan	Bilang ng Respondente
Central Taytay Senior High Schol Stand Alone	5
Pamantolon National High School	1
Canique National High School	1
Sandoval National High School	1
Casian National High School	2

Ipinapakita sa talahanayang ito ang distribusyon ng mga respondenteng guro mula sa iba't ibang paaralan ng Taytay District I. Binubuo ito ng limang (5) respondente mula sa Central Taytay Senior High School Stand-Alone, dalawa (2) mula sa Casian National High School, at tig-iisa (1) mula sa Pamantolon National High School, Canique National High School, at Sandoval National High School. Sa kabuoan, may sampung (10) guro ng Filipino ang naging bahagi ng pag-aaral na ito.

Talahanayan 2

Taon sa Pagtuturo

Respondente	Taon sa Pagtuturo
Respondente 1	31 taon
Respondente 2	4 na taon
Respondente 3	2 na taon
Respondente 4	5 na taon
Respondente 5	2 na taon
Respondente 6	3 na taon
Respondente 7	1 na taon
Respondente 8	2 na taon
Respondente 9	7 buwan
Respondente 10	9 na taon

Sa ikalawang talahanayan, makikita ang bilang ng taon sa pagtuturo ng mga guro. Isa sa mga respondente ay may 31 taon na sa serbisyo, samantalang ang iba naman ay may 9 na taon, 5 taon, 4 na taon, at 3 taon. Bukod dito, may tatlong guro na may 2 taong karanasan, isang guro na may 1 taon, at isa na may 7 buwan pa lamang sa pagtuturo.

Pigura 1

Kasarian ng Respondente

Ipinapakita sa pigura ang distribusyon ng mga respondente batay sa kanilang kasarian. Mula sa kabuoang sampung (10) respondenteng guro, nakararami ang mga babae na may bilang na pito (7) o 70% ng kabuoang populasyon. Samantala, ang mga lalaki naman ay binubuo ng tatlo (3) o 30%.

1. Ano-ano ang mga suliranin at hamon na kinakaharap ng mga guro sa pagtuturo ng Filipino bata sa:

A. Kagamitang pampagtuturo
B. Kurikulum
C. Estratehiya sa pagtuturo
D. Oras at load ng guro
E. Kasanayan ng mga mag-aaral sa gramatika at wastong paggamit ng wika
F. Kahirapan ng mga mag-aaral sa pag-unawa ng mga salita at tekstong Filipino

Mean	Paglalarawan
4.21–5.00	Lubos na Sumasang-ayon
3.41–4.20	Sumasang-ayon
2.61–3.40	Hindi Tiyak
1.81–2.60	Hindi Sumasang-ayon
1.00–1.80	Lubos na Hindi Sumasang-ayon

Talahanayan 3.1

Pahayag	Mean	Paglalarawan
A. Kagamitang Pampagtuturo		
1. Kulang ang mga kagamitang pampagtuturo para sa asignaturang Filipino.	3.90	Sumasang-ayon
2. Kulang ang aklat at sanggunian sa asignaturang Filipino	3.80	Sumasang-ayon
3. Kakaunti o hindi sapat ang makabagong kagamitang panturo na maaaring gamitin sa klase.	4.0	Sumasang-ayon
4. Nahihirapan akong makahanap ng angkop na materyales para sa mga aralin.	3.40	Hindi Tiyak
5. Kulang ang suportang teknolohikal para sa pagtuturo ng Filipino.	3.70	Sumasang-ayon
Total	**3.76**	**Sumasang-ayon**

Batay sa talahanayang ito ang pangkalahatang mean para sa Kagamitang Pampagtuturo ay 3.76 na may paglalarawan na **Sumasang-ayon**.

Ayon sa resulta ang pangunahing suliraning ay ang kakaunti o hindi sapat na makabagong kagamitang panturo na may mean na 4.00 (Sumasang-ayon), na sinusundan ng pangkalahatang kakulangan sa instructional materials na may mean na 3.90 (Sumasang-ayon) at kakulangan ng mga aklat o sanggunian na mayroong mean na 3.80 (Sumasang-ayon). Bagama't *Hindi Tiyak*

ang mga guro kung nahihirapan silang makahanap ng angkop na materyales sapagkat ito ay maroong mean na 3.40, at sa suliraning kulang ang suportang teknolohikal para sa pagtuturo ng Filipino itoy nakakuha ng mean na 3.70 (Sumasang-ayon). Malinaw na ipinapakita ng datos na kinakailangan ng higit na suporta sa moderno at sapat na kagamitang pampagtuturo para sa asignaturang Filipino.

Talahanayan 3.2

Pahayag	Mean	Paglalarawan
B. Kurikulum		
6. Maraming kompetensi ang kailangang matapos sa loob ng limitadong panahon.	4.20	Sumasang-ayon
7. May mga araling mahirap ituro dahil sa lawak ng nilalaman nito.	4.00	Sumasang-ayon
8. Hindi sapat ang oras upang lubos na matalakay ang lahat ng aralin.	4.30	Lubos na sumasang-ayon
9. May mga nilalaman sa kurikulum na hindi madaling maiugnay sa karanasan ng mga mag-aaral.	3.50	Sumasang-ayon
10. Nahihirapan akong matapos ang mga itinakdang aralin sa bawat markahan.	3.50	Sumasang-ayon
Total	**3.90**	**Sumasang-ayon**

Ang talahanayang ito makikita ang antas ng pagsang-ayon ng mga respondente hinggil sa mga suliranin ukol sa Kurikulum na ang pangkalahantang mean ay 3.90 na may paglalarawan na Sumasang ayon.

Lumalabas sa kategoryang kurikulum na ang pinakamatinding suliranin ng mga guro ay ang kakulangan ng oras upang matalakay nang lubos ang mga aralin, kung saan ito ay nakakuha ng pinakamataas na mean na 4.30 (Lubos na sumasang-ayon). Sinusundan ito ng dami ng kompetensi na may mean na 4.20 (Sumasang-ayon) at ng lawak ng nilalaman ng mga aralin mayroong mean na 4.00 (Sumasang-ayon). Bagama't may antas na sumasang-ayon o mean na 3.50 lamang ang usapin sa pag-uugnay ng aralin sa karanasan ng mag-aaral at ang pagtatapos ng aralin bawat markahan.

Talahanayan 3.3

Pahayag	Mean	Paglalarawan
C. Estratehiya sa Pagtuturo		
11. Nahihirapan akong pumili ng angkop na estratehiya para sa iba't ibang uri ng mag-aaral.	3.80	Sumasang-ayon
12. Kailangan ng mas maraming makabagong estratehiya sa pagtuturo ng Filipino.	3.80	Sumasang-ayon

13. Hindi lahat ng mag-aaral ay aktibong nakikilahok sa mga klase.	4.20	Sumasang-ayon
14. Mahirap panatilihin ang interes ng mga mag-aaral sa asignaturang Filipino.	3.20	Hindi Tiyak
15. Kailangan ng karagdagang pagsasanay sa paggamit ng mga makabagong estratehiya sa pagtuturo.	4.40	Lubos na Sumasang-ayon
Total	**3.88**	**Sumasang-ayon**

Ang talahanayang ito ay nagpapakita ng kategorya ng Estratehiya sa Pagtuturo na nakakuha ng pangkalahatang mean na 3.88 na may interpretasyong *Sumasang-ayon*.

Lumalabas na ang pinakamatinding pangangailangan ng mga guro ay ang pagkakaroon ng karagdagang pagsasanay sa mga makabagong estratehiya sa pagtuturo, na nakakuha ng pinakamataas na mean na 4.40 (Lubos na Sumasang-ayon). Isang malaking hamon din para sa kanila ang hindi aktibong pakikilahok ng lahat ng mag-aaral sa klase na may mean na 4.20 Sumasang-ayon. Bagama't "Hindi Tiyak" ang mga guro kung mahirap panatilihin ang interes ng mga mag-aaral sa asignaturang Filipino na ang mean ay 3.20, malinaw na ipinapakita ng kabuoang resulta na kinakailangan ng patuloy na propesyonal na pag-unlad at pagsasanay upang mapahusay pa ang mga estratehiya sa pagtuturo.

Talahanayan 3.4

Pahayag	**Mean**	**Paglalarawan**
D. Oras at Workload ng Guro		
16. Mabigat ang aking teaching load.	2.90	Hindi Tiyak
17. Kulang ang oras para sa paghahanda ng mga kagamitang pampagtuturo.	4.10	Sumasang-ayon
18. Naaapektuhan ng iba pang tungkulin ang aking pagtuturo.	3.70	Sumasang-ayon
19. Kulang ang oras para mabigyan ng sapat na atensyon ang bawat mag-aaral.	3.20	Hindi Tiyak
20. Nakadaragdag ng hamon sa pagtuturo ang dami ng administratibong gawain.	4.00	Sumasang-ayon
Total	**3.58**	**Sumasang-ayon**

Batay sa talahanayang ito, ang pangkalahatang mean para sa kategorya ng Oras at Workload ng Guro ay 3.58 na may interpretasyong *Sumasang-ayon*.

Lumalabas na ang pinakamatinding suliraning kinakaharap ng mga guro ay ang kakulangan ng oras para sa paghahanda ng kagamitang pampagtuturo na may mean na 4.10 (Sumasang-ayon), na sinusundan ng dami ng mga administratibong Gawain na ang mean ay 4.00 (Sumasang-ayon) at iba pang ancillary tasks na kung saan ang mean ay 3.70 (Sumasang-ayon). Sa kabilang banda, "Hindi Tiyak" ang mga guro hinggil sa bigat ng kanilang teaching load na ang mean ay 2.90 at sa kawalan ng oras para sa bawat mag-aaral na may mean na 3.20.

Ipinapakita ng pangkalahatang resulta na kinakailangang mabawasan ang mga gawaing administratibo ng mga guro upang magkaroon sila ng sapat na oras sa paghahanda ng kanilang mga aralin at kagamitan sa pagtuturo.

Talahanayan 3.5

Pahayag	Mean	Paglalarawan
E. Kasanayan ng mga Mag-aaral sa Gramatika at Wastong Paggamit ng Wika		
21. Maraming mag-aaral ang may kahinaan sa wastong paggamit ng gramatika.	4.30	Lubos na Sumasang-ayon
22. Nahihirapan ang mga mag-aaral sa pagbuo ng wastong pangungusap sa Filipino.	4.00	Sumasang-ayon
23. Maraming mag-aaral ang nagkakamali sa paggamit ng mga salita.	4.10	Sumasang-ayon
24. Kailangan ng mas maraming gawaing panggramatika upang mapaunlad ang kanilang kasanayan.	4.40	Lubos na Sumasang-ayon
25. Naaapektuhan ng kahinaan sa gramatika ang kanilang pag-unawa sa aralin.	4.20	Sumasang-ayon
Total	**4.20**	**Sumasang ayon**

Sa talahanayang ito makikita ang pangkalahatang mean para sa kategorya ng Kasanayan ng mga Mag-aaral sa Gramatika at Wastong Paggamit ng Wika ay 4.20 na may interpretasyong *Sumasang-ayon*.

Batay sa resulta ng pananaliksik ang pinakapangunahing pangangailangan ay ang pagbibigay ng mas maraming gawaing panggramatika upang mapaunlad ang kasanayan ng mga mag-aaral na may mean na 4.40 o interpretasyong Lubos na Sumasang-ayon. Kinunpirma rin ng mga respondente na maraming mag-aaral ang may kapansin-pansing kahinaan sa gramatika na ang mean ay 4.30 na may interpretasyong Lubos na Sumasang-ayon, na kung saan ay direktang nakakaapekto sa kanilang pag-unawa sa mga aralin na ang mean ay 4.20 na may interpretasyong sumasang-ayon. Nakakuha naman ang suliraning Maraming mag-aaral ang nagkakamali sa paggamit ng mga salita ng mean na 4.10 na may interpretasyong sumasang ayon at ang suliraning nahihirapan ang mga mag-aaral sa pagbuo ng wastong pangungusap sa Filipino na may roong 4.00 na mean na ang interpretasyon ay sumasang-ayon. Ipinapakita ng pangkalahatang resulta na kinakailangang bigyang-diin sa pagtuturo ang mga batayang aralin sa balarila at pagbuo ng pangungusap upang mapalakas ang batayang kasanayan ng mga mag-aaral sa asignaturang Filipino.

Talahanayan 3.6

Pahayag	Mean	Paglalarawan
F. **Kahirapan sa Pag-unawa ng mga Salita at Tekstong Filipino**		
26. Nahihirapan ang mga mag-aaral na unawain ang ilang salitang Filipino.	4.00	Sumasang-ayon
27. Nahihirapan silang maunawaan ang mga tekstong pampanitikan.	3.90	Sumasang-ayon
28. Limitado ang bokabularyo ng ilang mag-aaral sa Filipino.	3.90	Sumasang-ayon
29. Madalas silang humingi ng paliwanag sa kahulugan ng mga salita.	3.90	Sumasang-ayon
30. Ang kahirapan sa pag-unawa sa mga salita ay nakaaapekto sa kanilang pagkatuto.	3.90	Sumasang-ayon
Total	**3.92**	**Sumasang-ayon**

Ipinapakita ng talahanayan ang pangkalahatang mean para sa kategorya ng Kahirapan sa Pag-unawa ng mga Salita at Tekstong Filipino ay 3.92 na may interpretasyong *Sumasang-ayon*.

Ang pangunahing suliraning lumabas ay ang kahirapan ng mga mag-aaral sa pag-unawa ng ilang tiyak na salitang Filipino na may mean na 4.00 na may interpretasyong Sumasang-ayon. Bukod dito, parehong nakakuha ng mean na 3.90 na may interpretasyong sumasang-ayon sa limitado ang bokabularyo ng mga mag-aaral, nahihirapan silang maunawaan ang binasang tekstong pampanitikan, madalas silang magtanong ng kahulugan ng salita, at ito ay direktang nakakaapekto sa kanilang pangkalahatang pagkatuto. Ipinapakita ng resulta na kinakailangang bigyang-pansin ang pagpapalawak ng talasalitaan at paglinang sa kasanayan sa pagbasa't pag-unawa ng mga mag-aaral.

Talahanayan 4

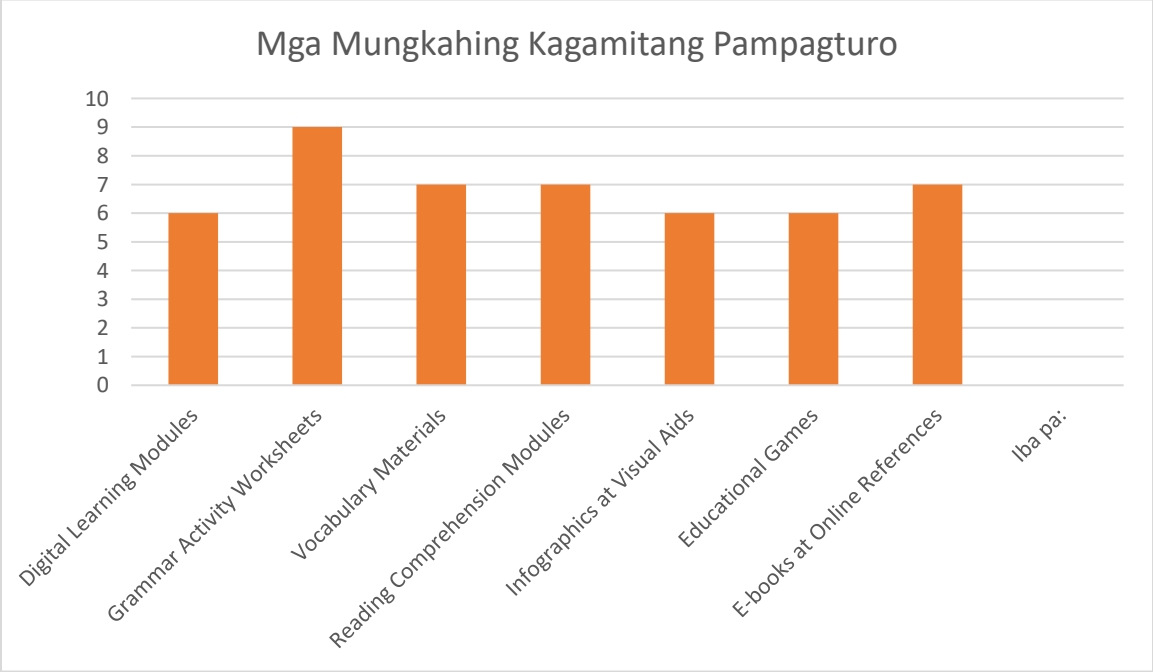
2. Ano ang epekto ng mga suliraning ito sa pagkatuto at pagtuturo ng mga guro?

Pahayag	Mean	Paglalarawan
III. Epekto ng mga Suliranin sa Pagtuturo at Pagkatuto		
31. Naaapektuhan ng mga suliraning ito ang kalidad ng pagtuturo.	3.70	Sumasang-ayon
32. Bumaba ang pagganap ng mga mag-aaral dahil sa mga hamong ito.	3.70	Sumasang-ayon
33. Nahihirapan ang mga guro na makamit ang mga layunin ng aralin.	3.00	Hindi Tiyak
34. Nababawasan ang interes ng mga mag-aaral sa asignaturang Filipino.	3.50	Sumasang-ayon

35. Naaapektuhan ang akademikong pagganap ng mga mag-aaral.	3.60	Sumasang-ayon
Total	**3.50**	**Sumasang-ayon**

Batay sa talahanayan, ang kabuoang mean para sa kategorya ng Epekto ng mga Suliranin sa Pagtuturo at Pagkatuto ay 3.50 na may interpretasyong *Sumasang-ayon*. Lumalabas na ang dalawang pangunahing epekto na labis na sinang-ayunan ng mga guro ay ang pagbaba ng kalidad ng pagtuturo at ang pagbaba ng pagganap ng mga mag-aaral, na kapwa nakakuha ng pinakamataas na mean na 3.70. Samantala ang pagbaba ng akademikong pagganap ay nakakuha ng mean na 3.60 na may interpretasyong sumasang-ayon at nababawasan ang interes ng mga mag-aaral sa asignaturang Filipino ay nakakuha ng mean na 3.50 na may interpretasyong sumasang-ayunan. Bagama't *Hindi Tiyak* ang mga guro hinggil sa Nahihirapan ang mga guro na makamit ang mga layunin ng aralin. Na ang mean ay 3.00, ipinapakita ng resulta na ang mga suliranin sa pagtuturo ay direktang nakakaapekto sa pangkalahatang kalidad ng edukasyon at tagumpay sa pagkatuto ng mga mag-aaral.

3. Anu-anong mga mungkahing kagamitan pangturo ang maaring gamitin upang matugunan ang mga suliranin at hamon?



Makikita sa bar graph ang distribusyon ng mga mungkahi ng respondenteng guro ukol sa mga kagamitang pampagtuturo na maaaring gamitin upang matugunan ang mga suliranin at hamon sa klase. Batay dito ang Grammar Activity Worksheets ang pinakamagandang mungkahi para sa mga guro, kung saan 9 sa 10 respondente ang pumili rito.

Sumunod dito ang Vocabulary Materials, Reading Comprehension Modules, at E-books at Online References na nakakuha ng tig-7. Ang Digital Learning Modules, Infographics at Visual Aids, at Educational Games naman ay may pumili na tig-6 mula sa mga respondente.

Lumalabas sa resulta na mas binibigyang-pansin ng mga guro ang pagbuo ng mga *worksheets* at *modules* na direktang tumutugon sa gramatika, pagbasa, at bokabularyo, kasabay ng paggamit ng mga pampagkatutong nakabase sa teknolohiya**.**

Implikasyon sa Pag-aaral

Batay sa resulta ng pag-aaral, nabatid na ang kakulangan o hindi sapat ang makabagong kagamitang panturo na maaaring gamitin sa klase, bigat ng administratibong tungkulin, at kakulangan sa oras ay nagbibigay-hirap sa mga guro na magbigay ng mas maayos, malalim, at magandang talakayan sa mga aralin. Nagdudulot din ito ng kakulangan sa oras ng mga guro upang makagawa ng mabisang kagamitang panturo. Bukod dito, ang kahinaan sa bokabularyo at gramatika ng mga mag-aaral ay isang malaking balakid kapwa sa mga guro at mga mag-aaral. Dahil dito, kinakailangan ng matinding pagsasanay sa makabagong estratehiya sa pagtuturo para sa mas mabuting pagganap ng mga mag-aaral. Ayon sa mga hamon at suliraning nakalap, ipinakita sa datos na ang epekto ng mga suliranin sa pagtuturo ay direktang nakakaapekto sa pangkalahatang kalidad ng edukasyon at tagumpay sa pagkatuto ng mga mag-aaral.

Lumabas sa pag-aaral na ito na upang matugunan ang mga hamon at suliranin ng mga guro sa asignaturang Filipino, kinakailangan ang mga kagamitang panturo o interbensyon tulad ng *Grammar Activity Worksheets*, *Vocabulary Materials*, *Reading Modules*, *e-books*, at *online references* na maaari nilang basahin kahit saan at kahit kailan.

Rekomendasyon

Batay sa resultang nakalap ng pag-aaral inirerekomenda ng mananaliksik ang sumusunod:

Para sa mga Tagapamahala ng Paaralan at DepEd Division/District Office

1. Pagbuo ng intervention materials. Hinihikayat ang pamahalan makipagtulungan at suportahan ang pagbuo at pagpaparami ng mga Grammar Activity Worksheets, Vocabulary Materials, Reading Modules, e-books at online references, upang matugunan ang kahinaan ng mga mag-aaral sa balarila at bokabularyo.
2. Bawasan ang administratibong Gawain ng mga guro. Kinakailangan bawasan ang mga administratibong gawain ng mga guro upang mas lalo pang mabigyan ng sapat na oras ang mga guro sa paggawa ng mga instructional materials at mabisang pagpaplano ng aralin.
3. Pagkakaroon ng In Service Training at workshop sa mga guro. Kinakailangan ng mga guro ng karagdagang kaalam patungkol sa mga makabago at interaktibong estratehiya sa pagtuturo ng asignaturang Filipino.

Para sa mga guro sa Filipino

1. Gumamit ng mga interaktibo at teknolohikal na kagamitan *e-books*, *online references*, *infographics*, at *educational games* upang mas makuha ang interes at aktibong pakikilahok ng mga mag-aaral sa klase.
2. Maglaan ng maikling oras para sa wastong paggamit ng gramatika at pagpapalawak ng talasalitaan bago tumungo sa malalalim na tekstong pampanitikan.

3. Magbigay ng mga karagdagang babasahin, worksheet at modules na may kaugnayan sa kasanayan ng gramatika ng mag-aaral.

Para sa tagapagplano ng kurikulum

1. Rebisyon at dekondhestyon sa kompetensi sa asignaturang Filipino upang mabigyan ng sapat na oras ng pagtuturo at maiwasan ang mabilisang pagtalakay sa mga aralin.

Para sa susunod na mananaliksik

1. Maaring gumawa ng kasunod na pag-aaral o *experimental research* upang sukatin ang tunay na epekto ng paggamit ng Grammar Activity Worksheets, Vocabulary Materials, Reading Modules, e-books at online references sa pagpataas ng antas ng kasanayan ng mga mag-aaral sa Filipino.

Sanggunian

Fernandez, J. P., Lagrosa, C. J., Lao, M. C., Olandria, E., Parido, C., Templa, E. L., & Paclipan, G. (2026). Pananaw sa kakayahan ng pagtuturo ng guro at pagpapahalaga sa asignaturang Filipino bilang pagtukoy sa interes sa pagkatuto ng Filipino ng mga mag-aaral sa Junior High School. St. Peter's College of Toril, Inc. Ignatian International Journal for Multidisplinary Research.

Fajardo, R. N. O., Chato, M. N. E., Pabas, H. M. U., Langres, C. T., Sumania, F. N. A. R., Mendoza, R. K. M., & Gaddi, J. A. G. (2024). Antas ng hamon sa pag-aaral ng wikang Filipino ng mga mag-aaral sa ikalabing-isang. Basic Education Department, St. Paul University Surigao, Philippines. International Journal of Research

Constantino at Atienza (2018) na ang pag-aaral ng asignaturang Filipino ay nakatutulong upang malinang ang kritikal na pag-iisip at mabisang komunikasyon ng mga mag-aaral.

Constantino, P., & Atienza, G. (2018). Pananaliksik at Wika. Quezon City: University of the Philippines Press.

Lumbera, B. (2016). Ang Kahalagahan ng Wika at Panitikan sa Edukasyon. Quezon City: University of the Philippines Press.

Department of Education. (2021). K to 12 Curriculum Guide in Filipino. Pasig City, Philippines.

Lumbera, B. (2016). Ang Kahalagahan ng Wika at Panitikan sa Edukasyon. Quezon City: University of the Philippines Press.

Tolentino, R. (2017). Wika, Edukasyon, at Lipunang Pilipino. Manila: Anvil Publishing.

Almario, V. S. (2018). Makabagong Pagtuturo ng Filipino. Manila: Komisyon sa Wikang Filipino.

Department of Education. (2016). K to 12 Curriculum Guide in Filipino. Pasig City, Philippines.

Department of Education. (2021). K to 12 Curriculum Guide in Filipino. Pasig City, Philippines.

LEADERSHIP IN TIMES OF CONFLICT: CONFLICT MANAGEMENT PRACTICES OF SCHOOL HEADS IN MALAY, AKLAN

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Abstract

This qualitative phenomenological study proposes to explore the conflict management practices of selected school heads in the Schools Division Office of Aklan, District of Malay. Schools are dynamic organizations where differences in roles, expectations, personalities, and stakeholder interests may lead to interpersonal and organizational conflicts. In the context of decentralized school governance, school heads are expected not only to provide instructional leadership but also to manage relationships, resolve disputes, and sustain a positive school climate. Guided by the Thomas Kilmann Conflict Mode framework, this study will examine the common types of conflicts encountered by school heads, the practices they employ in managing these conflicts, the challenges they experience, and the best practices that may be derived from their lived experiences. Participants will be purposively selected school heads who have direct experience in handling school-related conflicts. Data will be gathered through semi-structured interviews and focus group discussions. The data will be transcribed, coded, and analyzed using thematic analysis. Ethical standards such as informed consent, confidentiality, voluntary participation, and secure data management will be observed throughout the study. The expected output is a set of practical insights and conflict management best practices that may inform leadership development, mentoring support, and policy enhancement for school heads in Malay, Aklan.

Keywords: conflict management; school heads; educational leadership; phenomenology; Thomas-Kilmann Conflict Mode Instrument

Introduction

Schools are social and professional communities where people work together to achieve educational goals. Within these communities, school heads, teachers, non-teaching personnel, learners, parents, and external stakeholders bring different expectations, personalities, values, and interpretations of policy. While these differences enrich the school environment, they may also produce disagreements and conflicts. Conflict, therefore, is not necessarily a sign of failure; rather, it is a normal feature of organizational life that requires responsible leadership and systematic management (Thomas & Kilmann, 1974/1976; Marquez, 2023).

Across contemporary educational settings, school leaders are increasingly expected to manage complex relationships while sustaining learning outcomes, staff morale, and organizational stability. School leadership today is no longer limited to administrative compliance and instructional supervision; it also involves emotional intelligence,

communication, mediation, collaborative decision-making, and the ability to transform disagreement into opportunities for improvement. When school conflicts remain unmanaged, they may result in strained professional relationships, reduced productivity, poor morale, resistance to reforms, and weakened school climate. However, when handled constructively, conflicts may clarify roles, surface hidden concerns, improve communication, and strengthen teamwork (Manga Djonra & Aki, 2023; Farooqi et al., 2023).

Within the country's decentralized school governance system, school heads occupy a strategic position in leading and managing schools. The governance of basic education recognizes the school as the center of teaching and learning and places school heads in key administrative and instructional leadership positions. School-Based Management further strengthens school-level decision-making, shared leadership, stakeholder participation, and continuous improvement. These reforms highlight the importance of school heads as leaders who must respond to day-to-day operational concerns, including conflicts involving teachers, staff, parents, learners, and community partners (Republic Act No. 9155, 2001; Department of Education [DepEd], 2024).

Within the Schools Division Office of Aklan, schools operate in varied organizational settings, personnel compositions, community expectations, and resource conditions. These differences may influence the kinds of conflicts encountered by school heads and the strategies they use to address them. Although conflict management is recognized as an important leadership competence, the lived experiences of school heads in Aklan remain insufficiently documented through qualitative inquiry. Thus, there is a need to understand not only the conflicts that occur but also how school heads interpret, respond to, and learn from these situations (Marquez, 2023; De Guzman et al., 2024)

This study therefore explored the conflict management practices of selected school heads in Malay, Aklan. Specifically, the study examined the types of conflicts encountered, the practices employed in managing them, the challenges experienced in conflict resolution, and the best practices derived from the participants' lived experiences. The intent was to generate practical insights that may inform leadership development, mentoring, policy clarification, and support programs for school heads.

The study was anchored on the Thomas-Kilmann Conflict Mode framework, which explains conflict responses through five modes: competing, collaborating, compromising, avoiding, and accommodating. These modes are understood along the dimensions of assertiveness and cooperativeness. In school leadership, competing may appear when firm decision-making or policy enforcement is necessary; collaborating may occur when parties are guided toward mutually acceptable solutions; compromising may be used when a practical middle ground is needed; avoiding may be temporarily appropriate when timing or emotions are not favorable; and accommodating may help preserve relationships or reduce tension in minor matters. The framework is useful because it recognizes that no single mode fits all conflict situations. Effective leadership requires contextual judgment about the nature, urgency, people involved, policy requirements, and likely effect of the conflict on school climate.

The study follows an Input-Process-Output model. The inputs include the profiles and lived experiences of selected school heads, the types of conflicts encountered in school settings, the leadership context of the Schools Division Office of Aklan, and the Thomas-Kilmann conflict

modes. The process involves purposive selection of participants, conduct of semi-structured interviews and focus group discussions, transcription,

coding, thematic analysis, validation of themes, and ethical data handling. The expected output is a set of themes describing conflict management practices, challenges, and best practices that may inform leadership development and conflict management support programs for school heads (Thomas & Kilmann, 1974/1976; Braun & Clarke, 2006).

Guided by this framework, the study addressed four research questions: What common types of conflicts were encountered by selected school heads? What conflict management practices did the participants employ? What challenges did the participants face when managing conflicts within their schools? What best practices were derived from the school heads' experiences in conflict management?

Method

Research Design

The study employed a qualitative phenomenological design. This design was appropriate because the investigation focused on the lived experiences, meanings, and leadership practices of school heads rather than on numerical measurement of variables. Phenomenology allowed the researcher to explore how school heads described conflict situations, interpreted their responses, and derived lessons from their experiences.

The qualitative approach also supported the use of open-ended responses that captured the complexity of school conflict. Because conflict management involves emotions, perceptions, policies, relationships, and contextual judgment, a qualitative design provided room for participants to explain the processes behind their actions and not merely identify the strategies they used.

Participants and Sampling

The participants were five selected school heads from the Schools Division Office of Aklan, District of Malay. They represented elementary school contexts and had leadership experience ranging from two to fifteen years. They supervised different numbers of teachers and staff and had varying exposure to leadership, school-based management, personnel supervision, and conflict-related orientations.

Purposive sampling was used because the study required participants who had direct experience in handling school-related conflicts. Participants met the following inclusion criteria: they were serving as school heads or designated school leaders in Malay; they had at least one year of school leadership experience; they had handled conflicts involving personnel, learners, parents, or stakeholders; and they voluntarily agreed to participate. The final number of participants was considered sufficient because recurring patterns appeared in the responses and no substantially new categories emerged during analysis.

Research Setting

The study was conducted in the District of Malay, Schools Division Office of Aklan. This setting was selected because it includes schools with diverse personnel sizes, community contexts, and stakeholder expectations. Such diversity provided a meaningful environment for understanding how school heads managed conflict in actual leadership practice.

Data Collection

Data were gathered through a semi-structured interview guide and focus group discussion prompts. The interview guide included questions on participants' leadership experience, common conflict situations, persons usually involved, causes of conflict, personal strategies for conflict management, difficulties encountered, and lessons learned. The focus group discussion prompts were organized around general perceptions of conflict, types of conflict, leadership responses, effective practices, decision influences, challenges, support needed, and system-level recommendations.

Before data gathering, permission was secured from the appropriate authorities. Participants were informed about the purpose of the study, the voluntary nature of participation, confidentiality measures, possible risks, and the right to withdraw. Interviews and discussions were conducted at mutually convenient times. With permission, responses were recorded or documented through field notes. The data were transcribed, anonymized, and organized for analysis.

Data Analysis

The data were analyzed using thematic analysis. The researcher first read and reread the transcripts to become familiar with the whole data set. Meaningful statements related to conflict types, practices, challenges, and best practices were then identified. These statements were assigned initial codes, grouped into categories, and developed into major themes aligned with the research questions.

The themes were reviewed for internal consistency and relevance to the data. They were then interpreted in relation to the Thomas-Kilmann framework. Direct participant statements were used as illustrative excerpts while protecting participant identity through codes such as SH1, SH2, SH3, SH4, and SH5.

Trustworthiness and Ethical Considerations

Several procedures strengthened the trustworthiness of the study. Credibility was supported through careful reading of transcripts, use of participant statements, and checking whether the themes reflected the research questions. Transferability was supported by describing the setting, participants, and conflict contexts in sufficient detail. Dependability was addressed through an audit trail of coding, categorization, and theme development. Confirmability was supported through reflective attention to the researcher's assumptions and by grounding interpretations in participant statements. Authenticity was promoted by preserving the participants' voices through representative quotations.

Ethical standards were observed throughout the study. Participation was voluntary and based on informed consent. Participant names and schools were not disclosed in the manuscript. Codes were used to protect identities. Data were handled securely and used only for academic purposes. Because conflict experiences may involve sensitive information, the presentation of findings avoided details that could expose personnel matters or indirectly identify individuals.

Results and Discussion

Analysis produced four major clusters of findings corresponding to the study questions: types of conflicts encountered by school heads, conflict management practices employed, challenges experienced, and best practices derived from their lived experiences. The findings show that conflict management among school heads was both relational and administrative. It required attention to emotions, communication, relationships, documentation, rules, and institutional procedures.

Table 1

Profile of Participants

Participant Code	Type of School	Years as School Head	Approximate Personnel Supervised	ership/Conflict Training
SH1	Elementary School	2	18 teachers and staff	Leadership seminars with limited conflict management topics
SH2	Elementary School	12	42 teachers and staff	DepEd leadership and grievance-related orientations
SH3	Elementary School	6	35 teachers and staff	School-based management and instructional leadership training
SH4	Elementary School	15	22 teachers and staff	Mentoring, supervision, and personnel management trainings
SH5	Elementary School	10	48 teachers and staff	Administrative and leadership development trainings

Note. Participant codes were used to protect identity.

Common Types of Conflicts Encountered by School Heads

Work-Related Conflicts on Workload, Schedules, and Assignments

Participants commonly described conflicts related to workload distribution, class schedules, committee assignments, submission of reports, and school-related tasks. These conflicts often occurred when teachers perceived that tasks were not distributed fairly or when the reasons behind assignments were not clearly explained. SH1 stated, "Most conflicts in my school involve misunderstandings among teachers, especially regarding workload distribution, schedules, and committee assignments. Sometimes, teachers feel that tasks are not equally given."

This finding indicates that operational concerns can become relational concerns when personnel view assignments as unfair or unclear. A task that may appear routine to the school head may be interpreted by teachers as unequal treatment if expectations,

criteria, and procedures are not communicated. Thus, work-related conflict is not merely about the number of tasks but also about transparency and trust in decision-making.

Interpersonal Conflicts Caused by Misunderstanding and Communication Gaps

Interpersonal conflict emerged from personality differences, hearsay, incomplete information, informal talk, and unclear communication. Participants described situations in which small concerns became larger disputes because they were not clarified early. SH4 shared, "The most common conflicts are personal misunderstandings among teachers. Small issues sometimes become bigger when communication is not clear or when people rely on hearsay."

This theme highlights the importance of communication climate in schools. When personnel rely on assumptions rather than direct clarification, minor issues may become sources of mistrust. School heads therefore act not only as administrators but also as relationship managers who create safe spaces for dialogue and discourage rumor-based interpretations.

Parent- and Learner-Related Conflicts

Participants also reported conflicts involving parents and learners. These conflicts commonly concerned grades, discipline, learner behavior, classroom management, and parent expectations. SH2 explained, "Parent complaints are common, especially about grades, discipline, and classroom management."

Parent- and learner-related conflicts were sensitive because they involved learner welfare, family expectations, teacher judgment, and public trust in the school. School heads had to listen respectfully to parents, gather facts from teachers and records, protect learners, and explain school policy clearly. The findings show that stakeholder-related conflict requires diplomacy, evidence-based response, and careful communication.

Policy- and Performance-Related Conflicts

Participants identified conflicts arising from late submission of reports, absenteeism, resistance to new directives, disagreement over policy implementation, and concerns about

professional standards. SH5 stated, “I usually encounter conflicts related to performance, late submission of reports, absenteeism, and disagreement about school policies. Some teachers resist changes, especially when new instructions are implemented.”

Policy- and performance-related conflicts reveal the administrative dimension of school leadership. School heads must enforce standards consistently while also explaining the rationale of requirements and providing support for compliance. In the Thomas-Kilmann framework, this situation may require competing when policy enforcement is non-negotiable, collaborating when resistance results from confusion, and compromising when operational adjustments are possible.

Conflict Management Practices Employed by School Heads

Active Listening and Private Conference

The most emphasized practice was listening to all parties before making a decision. Participants considered listening as the first step in reducing emotional tension and preventing perceptions of bias. SH1 stated, “I first listen to both sides before making any decision. I do not immediately judge. I call the concerned teachers privately and allow them to explain their side.”

Private conferences allowed concerned persons to speak without public embarrassment. This practice reflected fairness and due process. It also aligned with the collaborating mode of the Thomas-Kilmann framework because it sought to understand both sides before deciding on a response.

Fact-Finding and Documentation

Participants emphasized the importance of gathering facts before deciding. They recognized that conflict narratives may be influenced by emotion, hearsay, incomplete information, or personal closeness. SH3 shared, “My practice is to gather facts first. I ask what happened, who was involved, and what evidence is available.”

Documentation was especially important in conflicts involving parents, repeated behavior, formal complaints, attendance concerns, and performance issues. Records helped protect the school head, the parties involved, and the institution. Fact-finding and documentation strengthened the fairness of the process and provided a basis for follow-through.

Mediation and Dialogue

Mediation emerged as a central practice in conflicts involving teachers, staff, parents, and other stakeholders. In mediation, the school head facilitated respectful conversation, clarified the issue, managed emotions, and guided the parties toward possible solutions. Participants noted that mediation was not simply allowing people to talk; it required the school head to establish ground rules, maintain focus, and prevent blame-oriented discussion.

This practice reflected collaborating when the goal was to understand underlying concerns and reach a mutually acceptable solution. It became compromising when parties had to adjust expectations to arrive at a workable agreement.

Counseling and Coaching

Participants used counseling and coaching when conflicts involved attitude, repeated misunderstanding, communication habits, or professional behavior. Counseling addressed personal and emotional concerns, while coaching guided participants toward better future conduct. This approach treated conflict as a developmental opportunity rather than merely a disciplinary matter.

Through coaching, school heads helped teachers and staff reflect on behavior, improve communication, and restore working relationships. This practice showed that conflict management can contribute to professional growth when leaders combine compassion with clear expectations.

Policy-Based Decision-Making Balanced with Compassion

Participants recognized that not all conflicts could be resolved through dialogue alone. Conflicts involving learner safety, serious misconduct, repeated non-compliance, or violation of rules required firmer action. SH5 stated, "I combine firmness and understanding. If the issue is minor, I use counseling. But if it affects school operations or violates rules, I take formal action."

This finding shows that effective school heads shifted among conflict modes depending on the situation. They collaborated when parties were willing to talk, compromised when agreement was possible, accommodated when relationship repair was more important, avoided temporarily when timing was poor, and competed when policy enforcement was necessary.

Challenges Faced in Managing Conflicts Emotional Reactions and Unwillingness to Listen

Participants identified emotional intensity as one of the most difficult aspects of conflict management. Parties sometimes entered discussions feeling angry, hurt, embarrassed, defensive, or misunderstood. SH1 shared, "The hardest part is when both parties do not want to listen. Sometimes they are emotional, and it is difficult to make them understand each other."

This challenge required school heads to remain calm, patient, and impartial. Emotional regulation was not only expected from the parties but also from the school head, who had to model professionalism during difficult conversations.

Sensitivity of Parent-Related Conflicts

Parent-related conflicts were challenging because parents were naturally protective of their children. When issues involved grades, discipline, or teacher behavior, parents sometimes approached the school with strong expectations. School heads had to listen without appearing dismissive and also protect teachers from unfair judgment.

This theme suggests the need for clear complaint protocols, documentation procedures, consultation with teachers, and respectful communication of decisions. Without such systems, parent-related concerns may escalate and affect community trust.

Time Constraints and Multiple Responsibilities

Conflict management required time for listening, investigation, consultation, documentation, mediation, and follow-up. However, school heads were also responsible for instructional supervision, reports, meetings, school programs, facilities concerns, and stakeholder coordination. SH3 identified time as a major challenge because conflicts often occurred alongside other urgent duties.

This finding suggests that conflict management should not depend solely on the personal availability of the school head. Schools may benefit from clear protocols, delegation when appropriate, and district-level support for complex concerns.

Long-Standing Personal Issues

Some conflicts were difficult because they were rooted in accumulated misunderstandings, previous negative interactions, or unresolved resentment. In such cases, the visible issue was only a surface expression of deeper relational tension. SH4 noted that some conflicts continued even after the immediate issue was addressed because the relationship between the parties remained strained.

This finding implies that conflict resolution should include follow-through, relationship rebuilding, team-building, and coaching. Quick settlement may not be enough when the underlying problem is relational.

Balancing Compassion and Accountability

Participants consistently described the challenge of being compassionate while enforcing standards. School heads may understand personal difficulties, family concerns, or emotional struggles of personnel, but they must also protect school operations and learner welfare. SH5 emphasized that too much leniency may weaken accountability, while excessive strictness may damage morale.

This tension is central to school leadership. It requires judgment about when to accommodate, when to collaborate, when to compromise, and when to act firmly. The challenge is not only to end a conflict but also to sustain fairness, trust, and accountability.

Best Practices Derived from the Experiences of School Heads Listen First and Remain Fair

Participants consistently emphasized that school heads should listen before deciding. Listening to all sides prevented premature judgment and reduced the perception of favoritism. Fairness encouraged teachers, staff, parents, and stakeholders to trust the process.
As a best practice, school heads should provide each party an opportunity to explain, ask clarifying questions, and avoid public judgment. This practice supports a school climate where concerns can be raised respectfully and through proper channels.

Intervene Early Before Conflicts Escalate

Participants suggested that small concerns should be addressed before they become serious disputes. Early intervention may involve informal conversation, clarification of instructions, private reminders, or immediate correction of misinformation.

This best practice is preventive because unresolved small concerns may accumulate into resentment or resistance. Early intervention allows school heads to resolve issues before they affect teamwork, morale, and school operations.

Document Important Incidents and Agreements

Documentation was identified as necessary in conflicts involving parents, repeated personnel concerns, attendance issues, policy compliance, or formal complaints. Written records protect the school, the school head, and the parties involved.

Documentation should include the nature of the concern, persons involved, date of conference, agreements reached, actions taken, and follow-up needed. Such records promote accountability and prevent confusion about what was agreed upon.

Strengthen Regular Communication and Meetings

Participants emphasized that conflict may be prevented through regular communication. Faculty meetings, written reminders, clear instructions, and transparent explanations of decisions reduce misunderstanding and role confusion.

This practice suggests that school heads should not wait for conflict before communicating. Regular communication builds clarity, respect, and participation. When personnel understand expectations and reasons behind decisions, resistance and suspicion are reduced.

Provide Training and Division-Level Support

Participants recognized conflict management as a professional competence that requires continuing training. They identified the need for support in mediation, counseling, emotional intelligence, grievance procedures, documentation, and policy interpretation.
Division-level support may include mentoring for new school heads, coaching for difficult cases, legal and policy orientation, and peer learning sessions. Such support can help school heads respond to sensitive conflicts with greater confidence and consistency.

Table 2

Themes on Common Types of Conflicts

Theme	Supporting Codes	Illustrative Statement	Interpretation
Work-related conflicts	Workload, schedules, committee assignments, reports	"Teachers feel that tasks are not equally given." (SH1)	Conflicts often arise from perceived unfairness and unclear role expectations.
Interpersonal conflicts	Misunderstanding, hearsay, communication gaps	"Small issues become bigger when communication is not clear." (SH4)	Communication gaps intensify minor concerns into larger disputes.
Parent- and learner-related conflicts	Grades, discipline, classroom management, parent complaints	"Parent complaints are common, especially about grades and discipline." (SH2)	School heads mediate among parental expectations, teacher judgment, learner welfare, and policy.
Policy- and performance-related conflicts	Policy resistance, absenteeism, late reports, compliance	"Some teachers resist changes." (SH5)	Policy implementation requires clarity, consistency, support, and accountability.

Table 3

Conflict Management Practices Employed by School Heads

Practice	Description	Related Thomas-Kilmann Mode	Leadership Implication
Active listening and private conference	Listening to each party before deciding	Collaborating/Accommodating	Builds trust and reduces perceived bias.
Fact-finding and documentation	Gathering evidence, reviewing records, and documenting agreements	Collaborating/Competing	Strengthens fairness, due process, and accountability.
Mediation and dialogue	Facilitating respectful conversation between parties	Collaborating/Compromising	Promotes shared understanding and peaceful resolution.
Counseling and coaching	Guiding personnel toward reflection and improvement	Accommodating/Collaborating	Supports professional growth and relationship repair.
Policy-based decision-making	Applying rules and standards when necessary	Competing/Compromising	Ensures consistency and protects school operations.

Table 4

Challenges Experienced by School Heads

Challenge	Description	Effect	Needed Leadership Response
Emotional reactions	Parties are defensive or unwilling to listen	Delays understanding and resolution	Calm facilitation and emotional regulation
Parent-related sensitivity	Parents may be protective and emotional	May affect trust and school reputation	Diplomatic communication and fact-finding
Time constraints	Conflict resolution competes with other duties	May delay follow-up and documentation	Clear protocols and prioritization

Long-standing personal issues	Conflicts are rooted in accumulated resentment	Surface solutions may not last	Monitoring, coaching, and relationship-building
Compassion and accountability	Need to balance empathy with standards	Risk of appearing harsh or too lenient	Consistent policy application with humane communication

Integrative Discussion

The findings indicate that conflict management among school heads in Malay is shaped by both relational and administrative demands. Work-related and policy-related conflicts require clarity, consistency, documentation, and enforcement of standards. Interpersonal and parent-related conflicts require listening, empathy, tact, and relationship repair. These dimensions are not separate in practice. A single conflict may involve workload, communication gaps, parent expectations, and policy interpretation at the same time.

The results also affirm the usefulness of the Thomas-Kilmann framework as an interpretive lens. Participants did not rely on one conflict mode alone. Rather, they shifted among competing, collaborating, compromising, avoiding, and accommodating depending on the seriousness of the issue, the parties involved, the emotional climate, and the policy implications. This situational movement suggests that effective conflict management is not defined by the constant use of one preferred style but by the leader's ability to match response to context.

A notable insight from the findings is that listening and documentation work together. Listening humanizes the process and allows parties to feel heard. Documentation systematizes the process and protects fairness. When either element is missing, conflict management becomes incomplete. Listening without documentation may result in unclear follow-through, while documentation without listening may be perceived as mechanical or insensitive.

Another important insight is that conflict management is preventive as much as corrective. Regular communication, clear task assignments, early intervention, and transparent explanation of policies reduce the likelihood that minor misunderstandings become larger disputes. School heads therefore need to treat conflict management not only as a response to problems but also as an ongoing leadership practice embedded in school culture.

Finally, the findings point to the need for institutional support. School heads are expected to manage sensitive conflicts involving personnel, parents, learners, and policy implementation, yet some may have limited formal training in mediation, documentation, counseling, emotional regulation, and grievance procedures. Division-level mentoring and professional development could strengthen consistency and confidence across schools.

Proposed Conflict Management Support Framework

Based on the findings, the study proposes the LCD-F Framework as a practical guide for school heads. The framework consists of Listen, Clarify, Decide or Mediate, Document, and Follow Through. These steps represent a sequence that begins with respectful listening and ends with monitoring to sustain resolution.

Table 5

LCD-F Conflict Management Support Framework

Step	Action	Purpose	Suggested Output
Listen	Allow each party to explain respectfully and privately when appropriate.	To understand perspectives and reduce emotional tension.	Initial conference notes and identified concerns
Clarify	Gather facts, identify the real issue, review records, and check applicable policies.	To avoid bias and establish a fair basis for action.	Fact summary and applicable policy reference
Decide or Mediate	Use mediation for resolvable disagreements or firm decision-making for policy-related concerns.	To match the response to the seriousness of the conflict.	Agreement, action plan, or formal decision
Document	Record incidents, agreements, decisions, and follow-up actions.	To promote accountability and protect all parties.	Signed conference record or memorandum when needed
Follow Through	Monitor compliance, provide support, and check whether the conflict recurs.	To sustain resolution and improve school climate.	Follow-up notes, coaching record, or monitoring report

Finally, the findings support the view that conflict should not automatically be treated as failure. Conflict can reveal unclear procedures, hidden concerns, inequitable workloads, communication gaps, and areas where professional support is needed. When handled constructively, conflict becomes data for school improvement. School heads who interpret conflict reflectively can identify organizational patterns and improve systems rather than merely settling individual disputes. This reflective orientation transforms conflict management from crisis response into an essential component of instructional and organizational leadership.

This study also has implications for leadership preparation. Many school heads learn conflict management through experience, but experience alone may not be sufficient for complex and sensitive cases. Formal training can strengthen confidence in mediation, legal and policy interpretation, documentation, emotional intelligence, restorative conversation, and grievance procedures. Mentoring systems can also support newly appointed school heads who may be uncertain about when to handle a conflict informally and when to elevate it to formal processes. Peer learning groups may allow school heads to discuss anonymized cases, compare strategies, and develop more consistent district-wide practices.

In practical terms, the framework may help school heads respond consistently across different types of conflict. For workload concerns, the framework encourages listening to perceptions of unfairness, clarifying the basis of assignments, deciding on adjustments when warranted, documenting agreed arrangements, and monitoring implementation. For parent concerns, it encourages listening to the complaint, clarifying evidence from teachers and school records, mediating communication or making a policy-based decision, documenting the conference, and following up on learner welfare. For performance-related issues, it allows the school head to begin with coaching when appropriate and proceed to formal action when rules or repeated non-compliance require accountability.

The proposed LCD-F Framework was developed from these insights. The first step, Listen, recognizes the human need to be heard and reduces emotional tension. The second step, Clarify, prevents premature judgment by requiring fact-finding and policy checking. The third step, Decide or Mediate, acknowledges that not all conflicts require the same response; some need collaborative mediation, while others need firm administrative action. The fourth step, Document, ensures accountability and continuity. The fifth step, Follow Through, prevents symbolic agreements from becoming ineffective. Together, the framework emphasizes that responsible conflict management should be humane, evidence-based, policy-aligned, and sustained.

The study further reveals that conflict management is closely linked to school climate. When personnel believe that the school head listens fairly, applies policies consistently, and documents agreements properly, they are more likely to trust the process. When they perceive bias, unclear communication, or weak follow-through, conflicts may become more difficult to resolve. School climate is therefore affected not only by the presence or absence of conflict but by the credibility of the conflict management process. A fair process can preserve relationships even when decisions are not favorable to all parties.

The presence of long-standing personal issues among personnel also shows that school conflict may be cumulative. A conflict presented as a disagreement over a schedule or report may actually reflect previous resentment, communication breakdown, or damaged professional trust. This means that school heads need to look beyond the immediate complaint and ask what patterns may be contributing to repeated conflict. Coaching, team-building, regular conferences, and follow-through are necessary when conflict is rooted in relationships rather than in a single event. Without attention to these

deeper causes, the same issue may reappear in different forms.

Documentation emerged as an equally important administrative safeguard. In practice, documentation serves several functions. First, it records the sequence of events and decisions made. Second, it protects all parties from misrepresentation. Third, it provides continuity when follow-up action is needed. Fourth, it helps school heads demonstrate that decisions were based on facts and policy rather than favoritism. However, documentation should not be used as a purely punitive instrument. The findings suggest that documentation becomes most effective when combined with listening, mediation, and clear explanation. In this sense, documentation supports both accountability and relationship repair.

Another contextual insight relates to the emotional labor of school leadership. The participants did not describe conflict management merely as the application of rules. They consistently referred to listening, patience, fairness, diplomacy, and the need to remain calm when parties were emotional. This shows that school heads carry the emotional burden of absorbing tension while preserving professionalism. In parent-related conflicts, this emotional labor becomes more visible because the school head must balance parental concern, teacher protection, learner welfare, and institutional credibility. The ability to communicate respectfully while remaining evidence-based becomes central to maintaining public trust.

The findings also suggest that school conflict is strongly connected to role clarity. Workload distribution, class schedules, committee assignments, reporting deadlines, and implementation of directives became sources of tension when personnel did not understand the basis of decisions or when they perceived unequal treatment. This indicates that conflict prevention begins before a disagreement occurs. Transparent task assignments, written guidelines, predictable procedures, and open opportunities for clarification can reduce the likelihood that ordinary administrative decisions will be interpreted as favoritism or unfairness. For this reason, school heads need to treat communication as a preventive leadership tool rather than as a reaction after conflict has already escalated.

Viewed through the Thomas-Kilmann framework, the experiences of the school heads demonstrate that conflict management is not a fixed personality style but a situational leadership process. A school head may begin with accommodating behaviors by listening patiently to a distressed teacher or parent, shift to collaborating when the parties are ready to discuss solutions, use compromising when a practical middle ground is necessary, apply avoiding temporarily when emotions are too high for productive dialogue, and use competing when learner safety, professional standards, or policy compliance require decisive action. This movement among modes is important because school conflicts rarely present themselves as simple disagreements. More often, conflicts contain interpersonal, procedural, and organizational dimensions that require flexible judgment.

Theoretical and Contextual Integration

The findings further suggest that professional development should include practice-based activities rather than lectures alone. Case analysis, role playing, interview simulations, documentation exercises, and peer consultation can help school heads rehearse difficult conversations before actual conflicts occur. Training should also include ways to identify when a concern can be settled internally and when it must be referred to higher authorities or formal grievance mechanisms. Through such preparation, school heads can respond with greater confidence, consistency, and ethical care.

In addition, the study highlights the importance of separating the person from the problem during conflict resolution. School heads who focus only on personalities may unintentionally intensify tension. School heads who focus on the issue, evidence, policy, and desired improvement are more likely to guide parties toward constructive dialogue. This principle is especially useful in schools where personnel work together for long periods and where unresolved conflict may affect daily collaboration. Respectful language, private conferences, and solution-focused questioning can help preserve dignity while still addressing accountability.

The findings may also inform the design of practical tools for schools. A simple conflict intake form can help school heads identify the nature of the concern, persons involved, urgency of the issue, initial evidence, and needed action. A conference record can document who attended, what was discussed, agreements made, timelines, and follow-up responsibilities. A monitoring form can track whether agreements were implemented and whether support was provided. These tools need not make conflict management overly bureaucratic; rather, they can make the process clearer, fairer, and easier to review.

Overall, these expanded implications reinforce that conflict management should be institutionalized as a regular leadership competency rather than treated as an occasional administrative task. When school heads are provided with clear procedures, mentoring, and practical tools, they can respond to conflict in ways that protect relationships, uphold policy, and sustain a professional school climate.

Implications for Policy and Practice

For school heads, the findings suggest the value of adopting a structured school-level conflict management protocol. Such a protocol may include receiving concerns, conducting private conferences, gathering facts, mediating, documenting agreements, monitoring follow-through, and escalating cases when necessary. School heads should also strengthen regular communication through faculty meetings, clear written reminders, transparent task assignments, and respectful explanation of decisions.

For teachers and school personnel, the findings highlight the importance of using proper communication channels, avoiding hearsay, participating constructively in dialogue, and clarifying expectations when assignments or policies are unclear. Personnel

can help prevent conflict by meeting deadlines, respecting differences, and supporting a professional climate.

For parents and stakeholders, the study suggests the need for respectful complaint mechanisms and orientation on policies related to grades, learner discipline, classroom management, and learner welfare. Clear procedures can reduce misunderstanding and facilitate more constructive engagement between the school and community.

For the Schools Division Office of Aklan and similar educational authorities, the findings support the development of continuing professional development activities on mediation, counseling, documentation, grievance procedures, emotional intelligence, and policy interpretation. Templates for complaint intake, conference notes, agreements, and follow-up monitoring may help standardize conflict handling.

Limitations and Future Directions

The findings are context-specific and based on the narratives of selected school heads in one district. The study does not claim statistical generalization. It also relied on participants' recollection of conflict experiences, which may be influenced by memory and willingness to discuss sensitive situations.

Future studies may include a larger number of school heads from elementary, secondary, integrated, rural, and urban school settings to compare conflict management experiences across contexts. Studies may also include teachers, parents, learners, and division officials to capture multiple perspectives on school conflict.

Mixed-methods research may further examine relationships between conflict management practices, school climate, teacher satisfaction, and organizational performance. Intervention studies may also test the effectiveness of a structured conflict management framework or training program for school heads.

Conclusion

This study concluded that conflict management among school heads is a multidimensional leadership practice that integrates interpersonal sensitivity and administrative responsibility. School heads encountered work-related, interpersonal, parent- and learner-related, and policy- and performance-related conflicts. They responded through listening, private conferences, fact-finding, mediation, documentation, counseling, coaching, and policy-based decision-making.

Effective conflict management required fairness, emotional control, clear communication, documentation, policy knowledge, and situational judgment. No single conflict management mode was sufficient for all situations. School heads needed to adjust their responses according to the seriousness of the conflict, the people involved, the policy concerns, and the possible effect on school climate.

The study further concluded that schools benefit when conflict is addressed early, fairly, and systematically. The proposed LCD-F framework—Listen, Clarify, Decide or Mediate, Document, and Follow Through—may guide school heads in handling conflicts in ways that are humane, accountable, and aligned with the goal of maintaining healthy school communities.

References

Abdullah, Z., Alias, B. S., & Hamid, A. H. A. (2025). A comprehensive systematic review: *Conflict management and teachers work culture. International Journal of Research and Innovation in Social Science*, 9(1), 999–1009. https://dx.doi.org/10.47772/IJRISS.2025.9010083

Annet, K. A. (2025). Conflict resolution strategies for school leaders. *Research Invention Journal of Current Issues in Arts and Management*, 4(2), 5–11. https://doi.org/10.59298/RIJCIAM/2025/42511

Bang-I, G. L., Rulloda, R. P., Jr., & Ticangen, D. M. (2024). Review of conflict management: *An exploration of strategies used by school administrators—A systematic review of literature. International Journal of Advanced Multidisciplinary Studies*, 4(10), 66–77.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Bush, T., & Glover, D. (2014). *School leadership models: What do we know? School Leadership & Management*, 34(5), 553–571. https://doi.org/10.1080/13632434.2014.928680

Creswell, J. W., & Poth, C. N. (2018). Qualitative inquiry and research design: *Choosing among five approaches* (4th ed.). SAGE Publications.

Department of Education. (2020). DepEd Order No. 024, s. 2020: National adoption and implementation of the Philippine Professional Standards for School Heads.

De Guzman, R. P., Gonzales, J. M., & Pajotagana, M. J. G. (2024). Conflict management style of school heads and its influence on the job satisfaction of teachers in Marilao North District, Bulacan, Philippines. International Journal of Research and Innovation in Social Science.

Deutsch, M. (1973). The resolution of conflict: *Constructive and destructive processes. Yale University Press.*

Farooqi, M. T. K., Ali, S., & Ahmed, S. (2023). Effects of school principals' conflict management styles on teachers' job performance. Bulletin of Education and Research, 45(3), 19–34.

Fullan, M. (2016). The new meaning of educational change (5th ed.). Teachers College Press.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. Field Methods, 18(1), 59–82. https://doi.org/10.1177/1525822X05279903

Hallinger, P. (2011). Leadership for learning: Lessons from 40 years of empirical research. Journal of Educational Administration, 49(2), 125–142. https://doi.org/10.1108/09578231111116699

Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of

intragroup conflict. Administrative Science Quarterly, 40(2), 256–282. https://doi.org/10.2307/2393638
Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. SAGE Publications.
Marquez, M. (2023). Conflict management strategies of school heads in Santa Cruz South District*: Input for a proposed conflict resolution framework. Psychology and Education: A Multidisciplinary Journal*, 10(1), 1–14. https://doi.org/10.5281/zenodo.8086387
Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). Qualitative data analysis: A methods sourcebook (4th ed.). SAGE Publications.
Moustakas, C. (1994). Phenomenological research methods. SAGE Publications.
Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: *Striving to meet the trustworthiness criteria. International Journal of Qualitative Methods,* 16(1), 1–13. https://doi.org/10.1177/1609406917733847
Patton, M. Q. (2015). Qualitative research & evaluation methods: *Integrating theory and practice* (4th ed.). SAGE Publications.
Rahim, M. A. (2002). Toward a theory of managing organizational conflict. *International Journal of Conflict Management*, 13(3), 206–235. https://doi.org/10.1108/eb022874
Rahim, M. A. (2011). Managing conflict in organizations (4th ed.). Transaction Publishers.
Republic Act No. 9155. (2001). Governance of Basic Education Act of 2001.
Somech, A. (2008). Managing conflict in school teams: *The impact of task and goal interdependence on conflict management and team effectiveness. Educational Administration*
Quarterly, 44(3), 359–390. https://doi.org/10.1177/0013161X08318957
The Myers-Briggs Company. (n.d.). TKI assessment: *Thomas-Kilmann conflict management tool*. https://www.themyersbriggs.com/en-us/explore-solutions/tki
Thomas, K. W. (1976). Conflict and conflict management. In M. D. Dunnette (Ed.), Handbook of industrial and organizational psychology (pp. 889–935). Rand McNally.
Thomas, K. W., & Kilmann, R. H. (1974/1976). Thomas-Kilmann Conflict Mode Instrument. Consulting Psychologists Press.
Tjosvold, D. (2008). The conflict-positive organization: *It depends upon us. Journal of Organizational Behavior*, 29(1), 19–28. https://doi.org/10.1002/job.473
Vinokur, E., Yomtovian, A., Marom, M. S., Itzchakov, G., & Baron, L. (2024). Social-based learning and leadership in school: *Conflict management training for holistic, relational conflict resolution. Frontiers in Social Psychology*, 2, Article 1412968. https://doi.org/10.3389/frsps.2024.1412968
Yin, R. K. (2016). *Qualitative research from start to finish* (2nd ed.). Guilford Press.
Yong, P., & Zhang, J. (2025). How transformational leadership reduces teachers' role stress: *Dual mediation of affective commitment and job satisfaction. Frontiers in Psychology,* 16, Article 1634303. https://doi.org/10.3389/fpsyg.2025.1634303

TIERED ASSESSMENT FRAMEWORK AND STUDENT PERFORMANCE IN THE ARAL PROGRAM: EVIDENCE FROM MARCELA T. MABANTA NATIONAL HIGH SCHOOL

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Abstract

This study evaluated the quantitative impact of the Academic Recovery and Accessible Learning (ARAL) Program on the foundational literacy of junior high school learners at Marcela T. Mabanta National High School. Utilizing a quantitative, longitudinal, single-group time-series design, the research tracked the academic progress of 893 learners (Grades 7 to 10) who were formally flagged for reading interventions. Data were collected using the Philippine Informal Reading Inventory (Phil-IRI) and extracted from the National Learning Assessment (NLA) portal across three mandated assessment intervals: Beginning (BOSY), Middle (MOSY), and End of School Year (EOSY). Baseline assessments revealed a severe literacy crisis, with 69.2% of the learners reading three levels below their expected grade standard and only 2.6% exhibiting grade-readiness. Following the implementation of MATATAG-aligned modular learning and targeted tutorials, the learners demonstrated a highly significant absolute mean gain of 19.02 points ($t = 23.88$, $p < .001$), reflecting a large effect size (Cohen's $d = 0.80$). By EOSY, a massive categorical shift occurred, with 46.5% of the learners successfully achieving independent reading status. Furthermore, an Analysis of Variance (ANOVA) indicated that the most academically vulnerable learners ("3 Levels Down" at BOSY) achieved the highest absolute mean gains, validating the targeted nature of the remediation. While gender did not significantly affect reading gains, grade level did, with Grade 7 learners showing the most substantial recovery. The findings conclude that the ARAL Program is strongly associated with significant improvements in foundational literacy, practically validating High-Dosage Tutoring and Response to Intervention (RTI) frameworks. The study recommends institutionalizing the BOSY-MOSY-EOSY monitoring timeline and prioritizing intensive instructional resources for incoming Grade 7 groups.

Keywords: ARAL Program, foundational literacy, academic recovery, MATATAG curriculum, Philippine Informal Reading Inventory (Phil-IRI)

Introduction

The phenomenon of learning loss constitutes a systemic challenge within the global educational sector, particularly following the protracted disruptions of the COVID-19 pandemic. Empirical data consistently indicates significant declines in learner achievement, with the most pronounced deficits observed in foundational competencies

such as literacy. Within the Philippine context, the severity of this instructional deficit has been quantified by the Second Congressional Commission on Education (EDCOM II) and the Philippine Institute for Development Studies (PIDS), which reported that learners lost an estimated 53 teaching days during School Year 2023-2024 alone. This loss of contact time, attributed to non-teaching tasks, extreme climatic conditions, and localized suspensions, aggravates pre-existing learning gaps and severely constrains the capacity of basic education institutions to achieve standard curricular competencies.

To systematically address these structural barriers, the Philippine government conceptualized a highly targeted policy response: the Academic Recovery and Accessible Learning (ARAL) Program. Institutionalized through the enactment of Republic Act No. 12028 (The ARAL Program Act) in October 2024, the program provides a strict legal mandate to establish free, structured national intervention frameworks aimed at accelerating learning recovery. Legally and operationally, the ARAL Program is designed as a systemic safety net, mandating evidence-based tutorial sessions and targeted remediation. Furthermore, Department of Education (DepEd) policies emphasize a data-driven approach to this recovery, utilizing tiered longitudinal assessments specifically the Beginning of School Year (BOSY), Middle of School Year (MOSY), and End of School Year (EOSY) evaluations alongside standardized diagnostic tools like the Philippine Informal Reading Inventory (Phil-IRI), to precisely map learner progress and adjust pedagogical strategies accordingly.

However, despite its recent institutionalization, the ARAL Program's full nationwide implementation commenced only during School Year 2025-2026. A structural dichotomy exists between these ideal legislative mandates and the actual realities of implementation during this inaugural year. Specific challenges persist within junior high school (JHS) classrooms: educators continue to encounter Grades 7 to 10 learners who read at the "Frustration" level on Phil-IRI assessments. Implementation of the ARAL Program is constrained by site-specific barriers, including high student-to-teacher ratios, educator intervention fatigue, inconsistent application of differentiated instruction, and cumulative learning deficits resulting from prolonged educational disruptions. While the policy dictates academic recovery through BOSY-MOSY-EOSY tracking, actual classroom dynamics reveal that many JHS learners struggle to transition rapidly from intervention tiers to independent, grade-level standards.

This persisting problem matters critically because foundational literacy is a gateway competency. If junior high school students fail to recover these skills during this critical first year of ARAL implementation, they are effectively precluded from comprehending the broader secondary curriculum. A Grade 8 student who cannot fluently decode texts cannot engage with complex science modules or critical social studies discourse. Consequently, these unresolved learning gaps compound exponentially, leading to severe academic disenfranchisement and high risks of school dropout.

This dichotomy establishes a crucial research gap. While Republic Act No. 12028 provides the comprehensive legal framework for academic recovery, empirical studies evaluating the ARAL Program's actual quantitative impact during its first full year of

implementation remain scarce. Given that SY 2025-2026 represents the program's inaugural nationwide rollout, there is a complete absence of longitudinal, peer-reviewed literature systematically tracking JHS student progress through the mandated tiered assessment framework. Therefore, there is an urgent need to conduct an empirical evaluation of the ARAL Program's impact on literacy gains. Tracking Phil-IRI data across BOSY, MOSY, and EOSY during this initial implementation cycle will bridge the gap between national policy and actual student performance.

Methods

This chapter outlines the procedures and techniques used to evaluate the impact of the Academic Recovery and Accessible Learning (ARAL) Program at Marcela T. Mabanta National High School. It describes the research design, study locale, respondents, research instruments, data collection procedures, and statistical analyses employed.

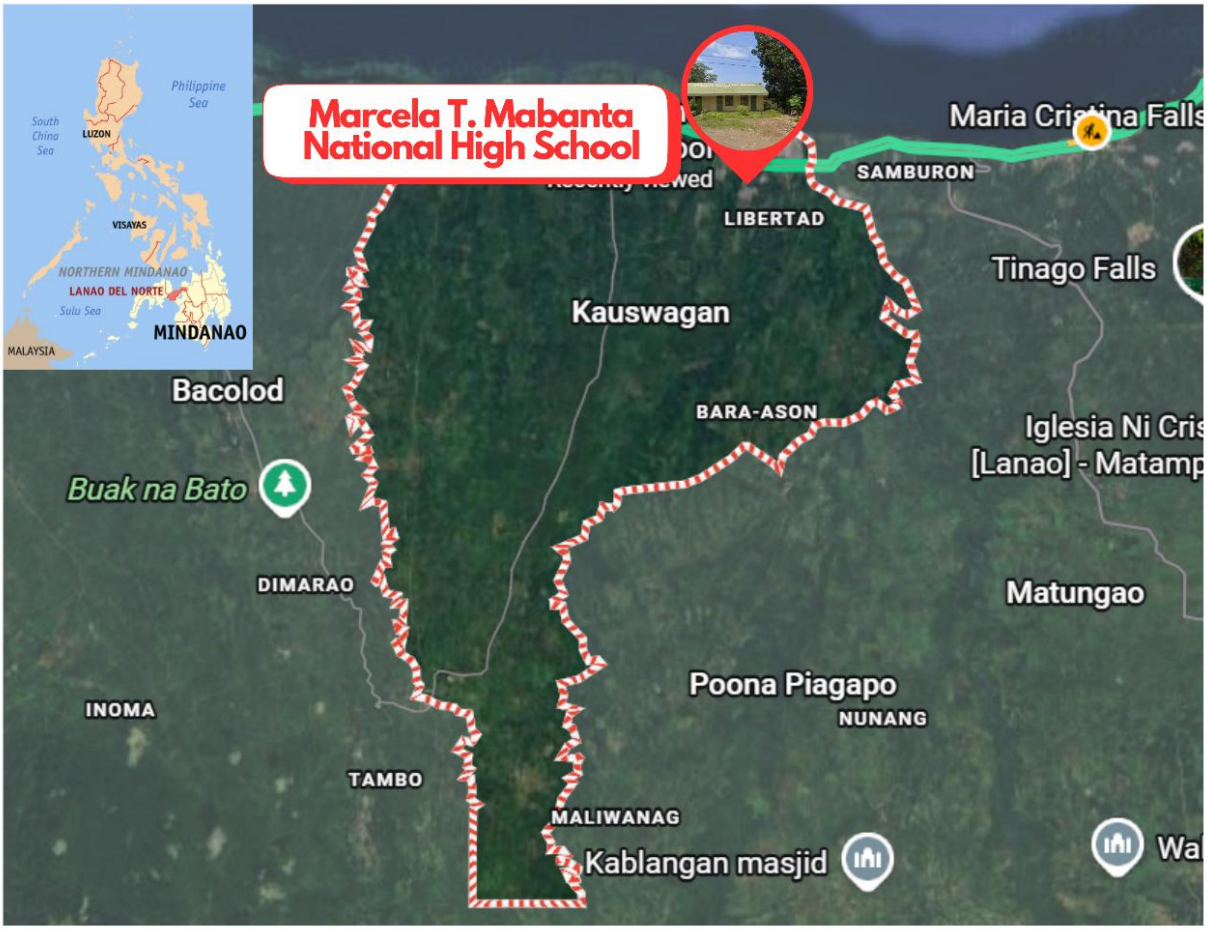
3.1 Research Design

The study employed a quantitative, longitudinal, descriptive-evaluative, and quasi-experimental research design using secondary data. Random assignment to a control group was not feasible because the ARAL Program is a state-mandated intervention for learners performing below proficiency levels. Instead, a single-group, time-series design (pretest-posttest) was used to track academic progress across three points: Beginning of School Year (BOSY), Middle of School Year (MOSY), and End of School Year (EOSY).

3.2 Locale of the Study

The study (displayed as Figure 2) is conducted at Marcela T. Mabanta National High School, a public secondary educational institution located in the Kauswagan District, under the jurisdiction of the Schools Division of Lanao del Norte, Region X (Northern Mindanao). The selection of this specific locale is purposive, as the school actively implements the mandated ARAL Program under the newly established MATATAG Curriculum framework for Junior High School learners. Assessing the program within this specific district provides critical insights into the localized operationalization, challenges, and effectiveness of national academic recovery mandates in a provincial setting.

Figure 2. *Map of the Study Locale*



3.3 Respondents of the Study

The subjects of this study comprise the junior high school students (Grades 7 to 10) officially enrolled at Marcela T. Mabanta National High School for the School Year 2025-2026 who have been formally flagged for academic intervention. The study utilizes a total enumeration sampling technique for the specific sub-population officially participating in the ARAL Program's reading components. The inclusion criteria strictly dictate that the secondary data utilized must pertain to learners who were classified under the "Frustration" or "Instructional" levels in the Philippine Informal Reading Inventory (Phil-IRI) during the baseline (BOSY) period. The final analytical sample included 893 learners who possessed complete and matched BOSY and EOSY English reading assessment records.

3.4 Research Instrument and Validity

Because this study relies entirely on secondary data analysis, the primary data sources consist of the standardized assessment scores authorized by the Department of Education (DepEd) and systematically recorded in the National Learning Assessment

(NLA) portal. The singular metric extracted is generated by the Philippine Informal Reading Inventory (Phil-IRI). Utilized for the assessment of literacy competencies, the Phil-IRI for Junior High School is a highly validated, standardized diagnostic tool used nationwide. It evaluates reading speed and comprehension through graded passages in both English and Filipino, classifying learners into reliable reading profiles (Independent, Instructional, Frustration). Its validity and reliability are continuously established and maintained by the DepEd Bureau of Learning Delivery.

3.5 Data Gathering Procedure

Data collection relied strictly on the extraction of secondary academic performance records from the National Learning Assessment (NLA) portal dashboard, in full adherence to ethical research standards. The procedure was conducted systematically and followed a series of steps to ensure compliance with legal and institutional requirements.

Formal clearances were secured from the Schools Division Superintendent and the School Principal to utilize the assessment data for academic research. Quantitative data was extracted systematically in alignment with the DepEd assessment calendar, covering baseline (BOSY) and endline (EOSY) metrics.

The first phase involves the extraction of baseline (BOSY) data, which served as the starting point for measuring students' proficiency levels. The second phase involved extracting the midline (MOSY) data, which provided insights into the progress students have made following the initial interventions. The final phase involved the extraction of endline (EOSY) data, which measured cumulative student progress over the course of the academic year. To ensure compliance with the Data Privacy Act of 2012, all extracted datasets were stripped of personally identifiable information prior to statistical processing.

3.6 Statistical Techniques

The extracted data were analyzed using statistical software with a significance level set at 0.05. Descriptive statistics, including frequency counts and percentages, were used to present the learners' demographic profile, specifically their gender and grade level, as well as their foundational literacy status based on BOSY categories. Means and standard deviations were calculated to show changes in English reading performance from the beginning to the end of the school year.

A paired samples t-test was conducted to determine whether there was a significant difference in learners' English reading performance before (BOSY) and after (EOSY) the implementation of the ARAL Program. Additionally, a one-way analysis of variance (ANOVA) was used to examine whether performance gains differed among learners from different BOSY categories. Effect sizes were also calculated to assess the magnitude of the results, with Cohen's d applied to the t-test and eta-squared used for the ANOVA to determine the proportion of variance explained.

Results and Discussion

This chapter presents the statistical results derived from the secondary data extracted from the NLA portal, addressing the research questions regarding the demographic profile, foundational literacy, and longitudinal academic performance of the learners at Marcela T. Mabanta National High School.

4.1 Demographic Profile of the Learners

Table 1. *Gender Profile of Learners*

Gender	Frequency	%
Male	417	46.7
Female	476	53.3
Total	**893**	**100.0**

Table 1 presents the gender distribution of the learners included in the final analysis. The data reveals a slightly higher proportion of female learners (53.3%, n=476) compared to male learners (46.7%, n=417). The distribution remains relatively balanced, ensuring that the evaluation of the ARAL program encompasses a representative sample of both genders within the target demographic.

Table 2. *Grade Level Profile of Learners*

Grade Level	Frequency	%
Grade 7	291	32.6
Grade 8	223	25.0
Grade 9	186	20.8
Grade 10	193	21.6
Total	**893**	**100.0**

Table 2 illustrates the distribution of the 893 learners across the junior high school grade levels. Grade 7 constitutes the largest cohort, comprising 32.6% (n=291) of the total population, followed by Grade 8 at 25.0% (n=223). Grade 9 represents the smallest proportion at 20.8% (n=186). This distribution confirms that foundational literacy deficits are most concentrated upon entry into secondary education (Grade 7), justifying the programmatic emphasis on early junior high school intervention.

4.2 Foundational Literacy Profile

Table 3. *Foundational Literacy Profile of Learners at BOSY*

BOSY Category	Frequency	%
3 Levels Down	634	69.2
2 Levels Down	258	28.2
Grade Ready	24	2.6
Total	**916**	**100.0**

(Note: Totals reflect all initial BOSY English reading records prior to matched EOSY filtering).

Table 3 details the baseline foundational literacy of the learners at the Beginning of the School Year (BOSY) prior to the ARAL intervention. The data indicates a severe literacy deficit: an overwhelming 69.2% (n=634) of the learners were classified as "3 Levels Down" from their expected grade-level reading proficiency. An additional 28.2% (n=258) were categorized as "2 Levels Down." Only a marginal 2.6% (n=24) of the assessed population were considered "Grade Ready." These empirical findings substantiate the necessity of the ARAL Program, demonstrating that the vast majority of the learner population required intensive reading support at the onset of the academic year.

4.3 Change in Academic Performance

Table 4. *Descriptive Change in Learners' English Reading Performance from BOSY to EOSY*

Assessment Point	Mean Score	Standard Deviation
BOSY	54.80	14.70
EOSY	73.82	8.90
Mean Gain	19.02	-

Table 4 quantifies the descriptive change in English reading performance for the 893 learners with complete matched records. The baseline (BOSY) mean score was 54.80 (SD = 14.70). Following the implementation of the ARAL modular and tutorial interventions, the endline (EOSY) mean score increased to 73.82 (SD = 8.90). This resulted in an absolute mean gain of 19.02 points across the academic year. The reduction in the standard deviation from BOSY to EOSY (14.70 to 8.90) further indicates that learners' scores became more concentrated toward higher proficiency levels, reducing the performance disparity within the cohort.

4.4 Significant Difference Before and After ARAL Implementation

Table 5. *Significant Difference in Learners' English Reading Performance Before and After the ARAL Program*

Comparison	t-value	df	p-value	Effect Size (Cohen's d)
BOSY vs EOSY	23.88	892	<.001	0.80

To determine the statistical significance of the observed gains, a Paired Samples t-test was conducted (Table 5). The analysis revealed a statistically significant difference between the BOSY and EOSY scores for MMTNHS learners, $t = 23.88$, $df = 892$, $p < .001$. Consequently, the first null hypothesis is rejected. The calculated effect size (Cohen's $d = 0.80$) indicates a large and practically meaningful magnitude of improvement. This robust statistical evidence aligns with High-Dosage Tutoring Theory, confirming that the

ARAL intervention is associated with significant, large-scale literacy acceleration over the academic cycle.

4.5 Performance Differences Under the Tiered Assessment Framework

Table 6. *Learners' Performance Gains Under the Tiered Assessment Framework*

BOSY Tiered Category	Number of Learners	Mean Gain	SD
3 Levels Down	618	20.80	24.60
2 Levels Down	252	15.80	21.40
Grade Ready	**23**	**6.50**	**9.00**

Table 6 categorizes the performance gains based on the learners' initial BOSY classifications. Learners exhibiting the most severe deficits ("3 Levels Down") achieved the highest absolute mean gain of 20.80 points. Learners categorized as "2 Levels Down" recorded a mean gain of 15.80 points, while those already "Grade Ready" exhibited the lowest mean gain of 6.50 points. This inverse relationship suggests that the ARAL intervention was highly effective in accelerating the progress of the most severely delayed learners.

Table 7. *Significant Differences in Performance Gains Across BOSY Tiered Categories*

Source of Variation	df	F-value	p-value	Effect Size (Eta-squared)
Between Groups	2	7.42	<.001	0.016
Within Groups	890	-	-	-
Total	892	-	-	-

A One-Way ANOVA was executed to determine if the differences in gains across the three tiers were statistically significant (Table 7). The results yielded a significant variance, $F(2, 890) = 7.42$, $p < .001$, leading to the rejection of the second null hypothesis. This confirms that the gain scores of learners across the different tiers were not statistically equivalent. However, the Eta-squared value (η^2 =.016) indicates a small effect size, suggesting that while the initial tiered category significantly influenced the trajectory of the gain, it accounted for only a small portion (1.6%) of the overall variance in improvement. Nonetheless, these findings empirically validate the structural integrity of the Response to Intervention (RTI) framework, demonstrating that the tiered diagnostic process accurately identifies learner needs and correlates with targeted performance acceleration.

Based on the rigorous statistical analysis of the secondary data extracted from the National Learning Assessment (NLA) portal, the following core findings were established:

1. **Demographic Profile.** The learner cohort at Marcela T. Mabanta National High School exhibited a balanced gender distribution (53.3% female, 46.7% male). Grade 7 constituted the largest demographic segment (32.6%), followed by Grade 8

(25.0%), indicating a concentration of academic risk upon entry into secondary education.

2. **Foundational Literacy Deficits.** Baseline assessments (BOSY) revealed a severe literacy crisis, with 69.2% of learners reading three levels below their expected grade standard, and 28.2% reading two levels below. Only 2.6% demonstrated grade-level readiness prior to the intervention.
3. **Academic Trajectory.** Descriptive statistics demonstrated a substantial increase in reading proficiency across the academic year, with the cohort's mean score rising from 54.80 at BOSY to 73.82 at EOSY, yielding an absolute mean gain of 19.02 points.
4. **Intervention Efficacy.** Inferential testing (Paired Samples t-test) confirmed that the improvement in literacy performance before and after the ARAL Program was highly statistically significant ($p < .001$), possessing a large effect size (Cohen's $d = 0.80$).
5. **Tiered Assessment Validity.** Analysis of Variance (ANOVA) confirmed significant differences in performance gains based on initial tiered categorizations ($p < .001$). Crucially, the most academically vulnerable learners ("3 Levels Down") achieved the highest absolute mean gains (20.80 points), while those already "Grade Ready" gained the least, validating the targeted nature of the remediation.

Conclusions

Derived from the empirical findings, the study draws the following conclusions:

1. The implementation of the Academic Recovery and Accessible Learning (ARAL) Program at Marcela T. Mabanta National High School is associated with highly significant, large-scale improvements in foundational literacy among junior high school students.
2. The empirical trajectory strongly supports the application of High-Dosage Tutoring Theory and modular instruction within the MATATAG curriculum framework. The substantial effect size ($d = 0.80$) indicates that structured, frequent interventions can rapidly accelerate reading recovery, effectively bridging severe post-pandemic learning gaps.
3. The Response to Intervention (RTI) framework, operationalized through the DepEd BOSY-MOSY-EOSY tiered assessment structure, functions as a highly valid diagnostic and monitoring mechanism. The system accurately identifies the most at-risk learners, and the data proves that these specific learners achieved the greatest magnitude of recovery, demonstrating that the intervention was successfully targeted rather than generalized.

Recommendations

Based on the conclusions, the following data-driven recommendations are proposed:

1. **For the Department of Education (DepEd) and Policymakers.** Given the large effect size demonstrating program efficacy, DepEd should sustain and potentially increase the budgetary allocation for the ARAL Program to ensure longitudinal continuity. The tiered assessment framework (BOSY-MOSY-EOSY)

should be permanently institutionalized as a strict accountability metric across all public secondary schools.

2. **For School Administrators.** Instructional leadership must prioritize Grade 7 cohorts for intensive resource allocation, as the data indicates this level possesses the highest concentration of severe literacy deficits ("3 Levels Down"). Administrators should continue utilizing data from the NLA portal to dynamically adjust tutor deployment mid-year.
3. **For Teachers.** Special pedagogical focus should continue to be directed toward learners identified as multiple levels below grade readiness, as they demonstrate the highest potential for rapid catch-up growth.
4. **For Future Researchers.** Subsequent studies should evolve from single-group designs to include matched control groups, if ethically permissible, to establish definitive causality. Furthermore, future research should integrate qualitative variables—such as learner motivation, parental support, and tutor training fidelity—to build predictive regression models that explain the variance in reading gains beyond the tiered classifications.

References

Ampofo, E. T., & Osei-Owusu, B. (2015). Students' academic performance as mediated by students' academic ambition and effort in the public senior high scjools in Ashanti Mampong Municipality of Ghana. *International Journal of Academic Research and Reflection*, *3*(5), 19-35.

Burns, M. K., Appleton, J. J., & Stehouwer, J. D. (2005). Meta-analytic review of responsiveness-to-intervention research: Examining field-based and research-implemented models. *Journal of Psychoeducational Assessment*, *23*(4), 381-394.

Carbonari, M. V., DeArmond, M., Dewey, D., Dizon-Ross, E., Goldhaber, D., Kane, T. J., ... & Staiger, D. O. (2024). Impacts of Academic Recovery Interventions on Student Achievement in 2022 to 2023. *Educational Evaluation and Policy Analysis*, 01623737251400377.

Magana, M. M., & Rubio, J. S. (2025). Modular distance learning: Its effect in the learning performance of junior high school learners of Vicente L. Basit Memorial High School. *International Journal of Research and Innovation in Social Science, 9*(7), 963-976. https://doi.org/10.47772/IJRISS.2025.90700077

Mamalampac, A. C. (2025). An Assessment on 3Rs (Reading, Writing, Arithmetic) Skills among Elementary Pupils in Lanao del Sur I. *International Journal of Research and Innovation in Social Science (IJRISS)*, *9*(10).

Morton, E., & Hashim, A. (2023). Accelerating Student Academic Recovery. Overview Brief# 26: Academic Acceleration. *EdResearch for Action*.

Murro, R. A. (2024). Modular distance learning: Exploring the study habits and academic achievements of state-funded elementary school learners. *Environment and Social Psychology*, *9*(8), 2462.

Serrano, R., & Farin, E. (2022). Effectiveness of modular learning approach among secondary school students during the pandemic in Zambales, Philippines. *Asian Journal of Education and Social Studies, 33*(2), 22-34. https://doi.org/10.9734/ajess/2022/v33i230789

TEACHER READINESS, IMPLEMENTATION EXPERIENCES, AND PERCEIVED EFFECTIVENESS DURING THE FIRST YEAR OF THE GRADE 4 MATATAG CURRICULUM

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Abstract

This cross-sectional descriptive study examined Grade 4 teachers' perceived readiness, implementation experiences, and views of curriculum effectiveness during the first year of the MATATAG Curriculum in the San Nicolas Sub-Office, Schools Division of Batangas. Total enumeration yielded responses from all 32 Grade 4 teachers who implemented the curriculum during the study period. Data were gathered through an online researcher-developed Likert-scale questionnaire and summarized using item and composite means, frequencies, and percentages. Teachers reported strong readiness (composite M = 4.7), with professional development receiving the highest rating (M = 4.9). They also expressed confidence in applying curriculum-aligned strategies and assessments. Implementation nevertheless involved adjustment: teachers agreed that revising lessons was difficult (M = 4.1) and that curriculum changes affected time management and schedules (M = 4.1). Resource sufficiency received the lowest rating in the implementation-experience domain (M = 3.9), whereas responsiveness to learner diversity received the highest (M = 4.4). Perceived curriculum effectiveness was high (composite M = 4.4), particularly for critical thinking, problem solving, practical skills, and real-life relevance (both M = 4.5). The findings show that readiness and implementation difficulty can coexist: training may build confidence, yet sustained planning support, time protection, resource provision, and teacher collaboration remain necessary. Because the study measured teacher perceptions in one local administrative unit, the results should not be interpreted as causal evidence of improved learner achievement. Future research should combine validated implementation measures with classroom observations and longitudinal learner-outcome data.

Keywords: curriculum reform; implementation fidelity; MATATAG Curriculum; teacher readiness; teacher perceptions

Introduction

Curriculum reform is realized not in policy documents alone but in the daily decisions through which teachers interpret standards, select pedagogies, organize

assessment, and respond to learners. National prescriptions establish intended content, sequencing, and time allocation; classroom enactment, however, is mediated by teachers' knowledge and beliefs, access to usable materials, professional learning, collegial support, workload, and local learner needs (Century et al., 2010; Fullan, 2016; Priestley et al., 2015). Teacher perceptions during the early stages of reform are therefore important implementation evidence: they help identify where policy intent is being translated into practice and where additional instructional or organizational support is required.

In the Philippines, the Department of Education introduced the MATATAG Curriculum to address curriculum congestion and strengthen foundational, higher-order, and life-relevant learning. DepEd Order No. 10, s. 2024 established the guidelines for phased implementation and positioned teachers and instructional leaders as central actors in contextualizing standards, designing instruction, assessing learning, and addressing learner diversity (Department of Education, 2024). Philippine institutional experience also demonstrates that educational innovation must be examined from the perspective of its users. At San Pablo Colleges, Ortega et al. (2021) found generally positive learner perceptions and high self-efficacy within the Hybrid Education Learning Program, while weaker indicators involving online resource use and learning amid distractions showed that favorable reception can coexist with implementation constraints. This earlier evidence reinforces the need to assess not only whether an innovation is accepted, but also whether learners and teachers have the conditions needed to enact it effectively.

The enabling environment extends beyond pedagogy. Infrastructure, resource availability, and institutional partnerships shape the capacity of schools to translate reform goals into sustained practice. Dimaculangan and Lunar (2026), in their examination of public-private partnerships and school infrastructure development in basic education, direct attention to the structural and collaborative dimensions of educational provision. These considerations are pertinent to MATATAG implementation because curriculum expectations depend on adequate learning spaces, materials, technology, and coordinated institutional support. Early MATATAG studies reflect this interaction between professional readiness and contextual capacity. Yunting et al. (2025) reported generally favorable assessments of first-year implementation across several grade levels but identified continuing concerns related to pacing, time, and resources. Atienza et al. (2025) likewise associated teacher readiness with training and collaboration while identifying insufficient guidance and limited resources as constraints. Comparable reform studies show that teachers interpret new curriculum demands through prior beliefs, classroom realities, and available support (Hernández & Izquierdo, 2023; Tran et al., 2023; Yembergenova et al., 2024).

This pattern is theoretically significant because implementation fidelity is multidimensional. It includes adherence to the intended program, exposure or dosage, quality of delivery, participant responsiveness, and the distinctiveness of the intervention (Century et al., 2010). Teachers may therefore feel confident and well trained while still experiencing difficulty with pacing, materials, assessment, or lesson adaptation. Teacher agency similarly emerges from the interaction of professional histories, present working conditions, and future-oriented goals (Priestley et al., 2015). Readiness, implementation

experience, and perceived effectiveness should consequently be treated as related but analytically distinct dimensions rather than compressed into a single measure of implementation success.

Despite a growing body of work on educational innovation and the MATATAG Curriculum, evidence remains limited at the level of specific grade cohorts and local administrative contexts. Institutional studies such as Ortega et al. (2021) illuminate how users experience a locally designed learning system, while system-oriented work such as Dimaculangan and Lunar (2026) highlights the wider resource and partnership conditions surrounding educational delivery. Neither line of evidence, however, substitutes for a focused examination of Grade 4 teachers during the first year of MATATAG implementation. Multi-grade and multi-site studies identify broad patterns but may obscure the planning, pacing, assessment, resource, and learner-diversity demands encountered by one implementation cohort. Local evidence from Grade 4 teachers can therefore support targeted professional development and resource decisions while contributing to the broader evidence base on early-stage curriculum reform.

The present study examined the perceptions of Grade 4 teachers in the San Nicolas Sub-Office during the first year of MATATAG Curriculum implementation. It addressed three questions: What is the level of Grade 4 teachers' perceived readiness and ability to implement the MATATAG Curriculum?

What implementation experiences did Grade 4 teachers report in relation to learner diversity, instructional planning, time management, and resource sufficiency? How effective did Grade 4 teachers perceive the MATATAG Curriculum to be in supporting learner development, engagement, and academic performance?

Methods

Research Design

The study used a cross-sectional descriptive survey design. This design was appropriate because the purpose was to characterize teachers' perceptions during a defined implementation period, not to estimate causal effects or test change over time. The unit of analysis was the individual Grade 4 teacher.

Setting and Participants

The study was conducted in public elementary schools under the San Nicolas Sub-Office of the Schools Division of Batangas. The target population comprised all 32 Grade 4 teachers who implemented the MATATAG Curriculum during its first year. Total enumeration was used; all eligible teachers were included in the survey. Accordingly, the reported statistics describe this local cohort and are not sample-based estimates of teachers in other districts or divisions.

Instrument

Data were collected using a researcher-developed questionnaire administered through Google Forms. The instrument contained statements organized into three domains: (a) perceived readiness and ability, (b) implementation experiences involving adaptation, learner diversity, time, and resources, and (c) perceived curriculum effectiveness. Respondents rated each statement on a five-point agreement scale. The second domain intentionally contained both positively and negatively worded statements; consequently, its item scores were interpreted individually rather than combined into a single composite score. Higher agreement with a positively worded item indicated a more favorable experience, whereas higher agreement with a negatively worded item indicated greater difficulty.

Data Collection and Ethical Safeguards

Permission to conduct the study was obtained from the relevant school administrators. Participants received information about the purpose of the study before completing the online questionnaire. No teacher names are reported, and responses were treated confidentially in data processing and presentation. Data were collected electronically, and only aggregate results are presented.

Data Analysis

Descriptive statistics were used because the research questions concerned the level and pattern of perceptions within the complete local cohort. Item means summarized agreement ratings. Means are reported to one decimal place, a level of precision appropriate to the cohort size and sufficient for interpreting the five-point response scale. Composite means were reported only for domains whose items represented a common directional construct. Frequencies and percentages were available for describing response distributions. The verbal labels attached to mean scores followed the interpretation scheme used in the questionnaire. No inferential tests were conducted because the study did not seek to generalize from a probability sample or test associations among variables.

Results

Perceived Readiness and Ability

Table 1. Grade 4 Teachers' Perceived Readiness and Ability

Indicator	Mean	Interpretation
Participation in professional development or training for MATATAG implementation	4.9	Strongly agree
Confidence in applying new teaching strategies and assessment methods	4.7	Strongly agree
Understanding of curriculum objectives and structure	4.7	Strongly agree
Preparedness to deliver MATATAG lessons at the start of the school year	4.5	Strongly agree

Composite mean	4.7	Strongly agree

Teachers reported a high level of readiness and ability (composite M = 4.7). Professional development and training received the highest rating (M = 4.9). Confidence in using new strategies and assessments and understanding of curriculum objectives and structure both received M = 4.7. Preparedness at the beginning of the school year received the lowest mean (M = 4.5), although it remained within the strongest agreement category. The pattern suggests that formal preparation was prominent, but initial operational readiness was comparatively less secure.

Implementation Experiences

Table 2. Grade 4 Teachers' Reported Implementation Experiences

Indicator	Mean	Interpretation
Ability to address learner diversity and different learning needs	4.4	Strongly agree
Difficulty adjusting lesson plans and instructional strategies	4.1	Agree
Effects of curriculum change on time management or teaching schedule	4.1	Agree
Sufficiency of teaching materials and resources	3.9	Agree

The second domain produced a more differentiated account of implementation. Teachers strongly agreed that they could address learner diversity (M = 4.4). At the same time, they agreed that adjusting lesson plans and instructional strategies was difficult (M = 4.1) and that curriculum changes affected time management or teaching schedules (M = 4.1). Resource sufficiency received the lowest rating (M = 3.9). Because the items differ in direction, these values should not be read as a single continuum from successful to unsuccessful implementation. Instead, they show that teachers perceived themselves as responsive to learners while simultaneously experiencing planning, scheduling, and resource pressures.

Perceived Curriculum Effectiveness

Table 3. Perceived Effectiveness of the MATATAG Curriculum

Indicator	Mean	Interpretation
Support for critical thinking, problem solving, and practical skills	4.5	Strongly agree
Alignment with learner needs and real-life applications	4.5	Strongly agree
Positive influence on participation, motivation, and engagement	4.3	Strongly agree
Observed improvement in academic performance	4.2	Strongly agree
Composite mean	4.4	Strongly agree

Perceived curriculum effectiveness was high (composite M = 4.4). Support for critical thinking, problem solving, and practical skills and alignment with learner needs and real-life applications received the highest means (both M = 4.5). Perceived effects on participation, motivation, and engagement followed (M = 4.3). Observed improvement in academic performance received the lowest mean (M = 4.2), although teachers still strongly agreed with the statement. This last result represents teachers' observations and should not be treated as a direct measure of achievement or as evidence that the curriculum caused academic improvement.

Discussion

The study presents a locally coherent but nonuniform picture of first-year MATATAG implementation. Teachers expressed strong readiness and favorable views of the curriculum, yet they also identified concrete difficulties in planning, scheduling, and resource access. The central finding is therefore not that implementation was simply successful or problematic. Rather, professional confidence and operational strain coexisted during the transition.

The high readiness rating, particularly for professional development, supports the proposition that structured preparation can strengthen teachers' confidence in implementing reform. This finding aligns with Atienza et al. (2025), who linked MATATAG readiness to relevant training and collaborative activity, and with broader implementation research emphasizing professional learning as an enabling condition (Fullan, 2016). Training alone, however, should not be interpreted as evidence of full implementation fidelity. Century et al. (2010) distinguish exposure to an intervention from the quality and consistency of its enactment. The comparatively lower rating for readiness at the beginning of the year suggests that teachers may need school-based support after formal training, when curriculum expectations are first converted into schedules, lessons, assessments, and differentiated activities.

Teachers' strong perceived ability to respond to learner diversity is encouraging because curriculum implementation necessarily involves adaptation to classroom context. From an ecological perspective, teacher agency is exercised through the interaction of professional competence and the affordances or constraints of the working environment (Priestley et al., 2015). The simultaneous reports of difficulty in revising lessons and managing time indicate that adaptation required additional labor. Similar tensions have been reported in the early MATATAG literature, particularly in relation to pacing and resources (Yunting et al., 2025), and in other national reforms where teachers endorsed policy aims but experienced difficulty appropriating unfamiliar materials and expectations (Hernández & Izquierdo, 2023; Tran et al., 2023; Yembergenova et al., 2024).

Resource sufficiency deserves particular attention. Although its mean remained in the agreement range, it was the lowest-rated implementation indicator. Relative rankings do not establish a resource deficit, but they help identify where support may yield the greatest practical benefit. Timely access to curriculum guides, exemplar lessons,

assessment resources, manipulatives, and locally adaptable learning materials can reduce individual preparation burdens and improve consistency across classrooms. School leaders may also protect collaborative planning time so that teachers can jointly unpack competencies, calibrate assessment, and share adaptations rather than independently reproducing the same work.

Teachers' favorable assessment of curriculum effectiveness was strongest for higher-order and practical skills and for real-life relevance. These perceptions are consistent with the stated direction of the MATATAG reform and suggest that teachers recognized coherence between policy intent and classroom aims. Nevertheless, the perceived improvement in academic performance must be interpreted cautiously. The study did not compare baseline and follow-up scores, include a comparison group, or use standardized outcome measures. Perception data can identify plausible effects and implementation priorities, but they cannot establish impact. A stronger evaluation would connect teacher reports with classroom observations, curriculum-based assessments, learner work samples, attendance, and engagement indicators over time.

Taken together, the findings imply that the first year should be treated as an implementation-learning period. High confidence is an asset, but it does not eliminate the need for responsive technical assistance. Implementation review should therefore examine not only whether training occurred but whether teachers have sufficient planning time, usable materials, assessment guidance, coaching, and opportunities to solve context-specific problems. Such support is likely to be most useful when it is continuous, grade-specific, and grounded in evidence from classroom practice.

Implications for Policy and Practice

1. Shift from one-time orientation to sustained, grade-specific professional learning that includes lesson design, assessment calibration, differentiated instruction, and guided reflection on implementation evidence.
2. Institutionalize protected collaborative planning through Learning Action Cells or professional learning communities, with attention to instructional pacing, workload, and the exchange of locally effective materials.
3. Conduct a resource audit focused on the accessibility, timeliness, and usability of curriculum guides, teaching exemplars, assessment tools, and materials for diverse learners.
4. Use multiple indicators in implementation monitoring. Teacher perception surveys should be triangulated with classroom observation, document review, learner work, and achievement or engagement data.
5. Create rapid feedback mechanisms through which Grade 4 teachers can report recurring curriculum ambiguities and receive timely guidance from school and division instructional leaders.

Limitations and Directions for Future Research

The findings are bounded by several limitations. First, the study describes 32 teachers in one sub-office; it offers a census of that setting but does not support statistical

generalization to other contexts. Second, the data are self-reported and may be affected by social desirability, recall, and common-method bias. Third, the cross-sectional design captures perceptions at one point in the first year and cannot show how readiness or implementation quality changed over time. Fourth, no direct classroom or learner-outcome measures were included. Finally, psychometric evidence for the researcher-developed instrument should be established in subsequent use through expert content review, pilot testing, internal-consistency analysis, and, with a sufficiently large sample, examination of construct validity.

Future research should employ multi-site longitudinal or mixed-method designs. Repeated surveys could document changes across implementation phases; interviews and observations could explain how teachers adapt curriculum expectations; and linked learner data could test whether implementation quality is associated with engagement and achievement. Comparative studies across school size, location, and resource conditions would also clarify which implementation supports are context dependent and which are broadly transferable.

Conclusion

Grade 4 teachers in the San Nicolas Sub-Office perceived themselves as highly ready to implement the MATATAG Curriculum and viewed the reform as effective in promoting higher-order, practical, and relevant learning. Their responses also showed that readiness did not remove the practical demands of reform: instructional planning, scheduling, and resource provision remained areas of adjustment. The most defensible conclusion is therefore that early implementation was positively received but still required sustained organizational support. Continuous professional learning, collaborative planning, accessible resources, and evidence-based monitoring can help convert initial readiness into consistent classroom enactment. Claims about learner improvement, however, require direct and longitudinal outcome evidence beyond teacher perception.

References

Atienza, M. E., Tenorio, J. T., Jr., Larazan, M. M. R., & Gamao, W. E. (2025). Teacher readiness in implementing the MATATAG Curriculum in the South District Schools of Davao City, Davao del Sur. Nexus International Journal of Science and Education, 2(3). https://doi.org/10.5281/zenodo.16626096

Century, J., Rudnick, M., & Freeman, C. (2010). A framework for measuring fidelity of implementation: A foundation for shared language and accumulation of knowledge. American Journal of Evaluation, 31(2), 199–218. https://doi.org/10.1177/1098214010366173

Department of Education. (2024). Policy guidelines on the implementation of the MATATAG Curriculum (DepEd Order No. 10, s. 2024). https://www.deped.gov.ph/wp-content/uploads/DO_s2024_010.pdf

Dimaculangan, D., & Lunar, B. C. (2026). Public-private partnerships and school infrastructure development in basic education: Evidence from public schools. AJIMAS.

Fullan, M. (2016). The new meaning of educational change (5th ed.). Teachers College Press.

Hernández, M., & Izquierdo, J. (2023). Teachers' perceptions and appropriation of EFL educational reforms among generalist teachers in rural Mexico. Education Sciences, 13(5), 482. https://doi.org/10.3390/educsci13050482

Montebon, D. R. (2024). Perceptions of select Filipino teachers on the Most Essential Learning Competencies of the K to 12 curriculum. Community and Social Development Journal, 25(2), 117–134.

Ortega, A., Velecina, J., & Lunar, B. C. (2021). Assessment of the Hybrid Education Learning Program (HELP) of the AHEAD Learning Platform of San Pablo Colleges. JPAIR Institutional Research, 16(1), 133–143. https://doi.org/10.7719/irj.v16i1.748

Priestley, M., Biesta, G., & Robinson, S. (2015). Teacher agency: An ecological approach. Bloomsbury Academic.

Tran, N. G., Ha, X. V., & Tran, N. H. (2023). EFL reformed curriculum in Vietnam: Understanding teachers' cognitions and classroom practices. RELC Journal, 54(1), 44–60. https://doi.org/10.1177/00336882211043670

Yembergenova, D., Mamadiyarb, A., Zhaiyrbayev, S., & Kumar, A. (2024). Teachers' perceptions of recent curriculum reforms: A case study on Kazakhstani teachers' utilization processes for the new course plan for English. Cogent Education, 11(1), Article 2375083. https://doi.org/10.1080/2331186X.2024.2375083

Yunting, J. D. C., Santos, M. C. R., Ampong, A. H. C., Jr., Mejos, D. P., & Monreal, J. A. (2025). Evaluating teachers' perceptions on the first year of MATATAG Curriculum implementation among selected schools: A quantitative analysis. International Journal for Multidisciplinary Research, 7(3). https://doi.org/10.36948/ijfmr.2025.v07i03.47139

STRENGTHENING RESEARCH ENGAGEMENT AMONG SECONDARY SCHOOL TEACHERS: A NEEDS ASSESSMENT FOR PROJECT SEARCH

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Abstract

Teacher engagement in school-based research can strengthen evidence-informed instruction, yet participation often depends on time, methodological preparation, access to literature, resources, and organizational support. This descriptive needs assessment examined research engagement and perceived research barriers among 40 secondary school teachers at San Nicolas Integrated High School as a basis for Project SEARCH, a proposed school-based research-capacity program. Participants were selected through simple random sampling, and data were collected using a researcher-developed four-point questionnaire. Item and domain means were summarized descriptively and reported to one decimal place to avoid unsupported precision. Teachers generally agreed that they engaged with or valued educational research (M = 2.9). The strongest indicators concerned exploring research to improve teaching knowledge (M = 3.7), believing that research enhances teaching effectiveness (M = 3.6), and applying findings to classroom problems (M = 3.5). Lower ratings concerned access to resources and recognition from colleagues or school leadership (both M = 2.4). Perceived barriers were also high (M = 3.2), led by limited time arising from workload (M = 3.7), difficulty balancing teaching and research (M = 3.6), insufficient methodological training (M = 3.6), and limited access to current publications (M = 3.5). The findings indicate a favorable disposition toward research but an environment that does not yet consistently convert interest into sustained participation. Project SEARCH is therefore proposed as an integrated response combining capacity building, mentoring, protected research time, resource access, small grants, dissemination opportunities, and recognition. Because the study used self-reported cross-sectional data from one school, future evaluation should document implementation fidelity and changes in completed proposals, approved studies, presentations, and research use.

Keywords: action research; evidence-informed practice; Project SEARCH; research capacity; research culture; teacher research

Introduction

Teacher research connects professional learning with the systematic investigation of classroom and school problems. When teachers formulate questions, gather and analyze evidence, and use findings to improve practice, research becomes more than a compliance activity; it becomes a mechanism for professional agency and organizational learning. Action research can support reflective practice, context-responsive innovation, and the production of knowledge that is immediately relevant to learners and schools (Burns, 2010; Cain, 2011; Vaughan & Burnaford, 2016).

In the Philippine basic education system, the Department of Education institutionalized research through the Basic Education Research Agenda and the Research Management Guidelines. These policies identify research as a means of informing policy, improving programs, and strengthening educational practice (Department of Education, 2016, 2017). Their implementation, however, depends on whether schools provide time, mentoring, access to evidence, and material support. Recent Philippine studies in a private higher education institution reinforce the importance of these organizational conditions. Perez and Lunar (2025) found a strong positive association between perceived research-budget allocation and self-reported research productivity, while Lunar, Eala, and Perez (2025) linked sustainability-oriented governance and stakeholder-centered initiatives with perceived institutional effectiveness. A scientometric analysis by Lunar and Lunar (2026) likewise associated sustained capability building, research incentives, partnerships, and attention to publication quality with improved institutional research visibility. Although these studies concern higher education and cannot be generalized directly to secondary schools, they indicate that individual motivation is more likely to yield research outputs when it is supported by coherent institutional systems.

Research engagement is multidimensional. It includes conducting studies, reading and interpreting research, collaborating with colleagues, applying findings, presenting results, and initiating inquiries into local problems. Borg (2010, 2013) distinguishes engagement with research from engagement in research and shows that both are influenced by individual confidence and institutional conditions. Teachers may value research and believe in its usefulness while remaining unable to participate consistently because of workload, limited training, or weak support structures. School-level assessment must therefore examine both professional interest and the conditions that enable or constrain action.

The source manuscript identified a practical concern at San Nicolas Integrated High School: teachers expressed interest in research, but research participation and institutional support appeared uneven. A needs assessment was undertaken to determine the pattern of research engagement and the challenges teachers experienced. The findings were intended to guide Project SEARCH, a coordinated school-based program for building research knowledge, supporting inquiry from proposal to dissemination, and strengthening recognition and research use.

This study addressed the following questions: What is the level of secondary school teachers' research engagement and research culture? What challenges do teachers encounter in conducting and disseminating research? What school-based program may be proposed in response to the identified needs?

Methods

Research Design

The study employed a cross-sectional descriptive survey design as a school-level needs assessment. The design was appropriate for identifying prevailing perceptions of research engagement and barriers before developing a capacity-building response. It did not test the effectiveness of Project SEARCH because the proposed intervention had not yet been evaluated through pre-intervention and post-intervention measures.

Participants and Sampling

Participants were 40 secondary school teachers from San Nicolas Integrated High School. The source study reported that the sample size was determined using Slovin's formula with a 0.05 margin of error and that participants were selected through simple random sampling. The total teacher population and achieved response rate were not stated; consequently, the representativeness of the sample cannot be independently evaluated from the available record.

Instrument

A researcher-developed questionnaire was used. The first domain contained statements on participation in research, learning about research, collaboration, application of findings, institutional support, recognition, and professional advancement. The second domain contained statements describing barriers such as workload, limited methodological preparation, funding, research ethics, access to publications, participant recruitment, publication, and resistance to implementation. Items were rated on a four-point agreement scale: 3.50–4.00, strongly agree; 2.50–3.49, agree; 1.50–2.49, moderately agree; and 1.00–1.49, disagree. The draft instrument underwent expert review for content and item clarity. The source table contained one duplicated statement with two different values; the repeated entry was excluded from the revised unique-item composite rather than treated as an independent construct.

Data Collection and Analysis

The questionnaire was distributed through email, Google Forms, and social-media channels. Weighted means were used to describe item responses and overall domains. All means are reported to one decimal place, which is appropriate for the four-point scale and avoids implying unsupported precision from the summarized source values. Rank labels were removed because several differences disappeared at defensible reporting

precision. Interpretations were assigned consistently using the stated scale thresholds. The analysis is descriptive and does not establish causal relationships.

Results

Research Engagement and Research Culture among Teachers

Table 1. Research Engagement and Research Culture among Teachers

Indicator	Mean	Interpretation
Participates in educational research when opportunities arise	3.3	Agree
Seeks opportunities to learn more about conducting educational research	3.2	Agree
Explores research to improve knowledge of teaching methods and strategies	3.7	Strongly agree
Pursues further study to enhance research skills	2.8	Agree
Collaborates with colleagues on research initiatives	2.7	Agree
Believes that conducting research enhances teaching effectiveness	3.6	Strongly agree
Proposes or initiates research projects within the school	2.6	Agree
Presents research findings during meetings or seminars	3.2	Agree
Applies research findings to classroom challenges or student learning	3.5	Strongly agree
Experiences a supportive environment for conducting research	2.6	Agree
Has access to necessary resources for teacher-led research	2.4	Moderately agree
Receives recognition from colleagues and school leadership	2.4	Moderately agree
Views research as a pathway to career growth or advancement	2.7	Agree
Is encouraged to experiment and innovate through research	2.6	Agree
Unique-item composite mean	2.9	Agree

Teachers generally agreed with the research-engagement indicators (M = 2.9). The strongest responses concerned exploring research to improve teaching knowledge (M = 3.7), believing that research improves teaching effectiveness (M = 3.6), and applying findings to classroom challenges or student learning (M = 3.5). These items reflect a favorable orientation toward the instructional value of research. By contrast, resource access and recognition from colleagues or school leadership received the lowest ratings (both M = 2.4, moderately agree). Collaboration, proposal initiation, and a supportive research environment also remained below the stronger individually oriented indicators. The pattern suggests that teachers value research more strongly than they experience the organizational conditions needed to sustain it.

Challenges in Conducting Research

Table 2. Challenges Encountered in Conducting Research

Challenge	Mean	Interpretation
Limited time because of teaching, lesson planning, and other responsibilities	3.7	Strongly agree
Limited formal preparation in research methods, data analysis, and statistical tools	3.6	Strongly agree
Limited access to funding, equipment, and materials	3.2	Agree
Complexity of ethical requirements for studies involving students	3.2	Agree
Insufficient institutional support or recognition	3.3	Agree
Limited access to current research journals and publications	3.5	Strongly agree
Difficulty balancing teaching responsibilities and research demands	3.6	Strongly agree
Difficulty recruiting an adequate number of participants	2.7	Agree
Difficulty publishing or disseminating findings	2.9	Agree
Resistance to implementing research findings or recommendations	2.7	Agree
Composite mean	3.2	Agree

Teachers agreed that they encountered substantial barriers (M = 3.2). Time pressure produced by teaching and related duties received the strongest response (M = 3.7). Balancing teaching and research and limited methodological training followed (both M = 3.6), while restricted access to current publications also received strong agreement (M = 3.5). Funding, ethical requirements, and institutional support were additional concerns. Participant recruitment, publication, and resistance to using findings received comparatively lower means, but teachers still agreed that these were obstacles. The results locate the main constraint not in teachers' rejection of research, but in the time, capability, information, and support infrastructure surrounding it.

Discussion

The findings reveal a readiness-capacity gap. Teachers expressed strong belief in the value of research for improving instruction, but their ratings of collaboration, resources, recognition, and school support were weaker. This distinction matters because favorable attitudes do not by themselves ensure that studies are completed or disseminated. In a private higher education setting, Perez and Lunar (2025) reported a strong positive relationship between perceived research-budget allocation and self-reported research productivity ($r = .744$, $p < .001$). The institutional level and outcome measures differ from those of the present needs assessment, so the result should not be treated as direct evidence of causation in a secondary school. It nevertheless supports the interpretation that research engagement is partly enabled by organizational resources rather than determined solely by teachers' willingness.

The strongest engagement indicators were tied directly to classroom practice: learning from research, improving teaching effectiveness, and applying findings to problems. This practical orientation fits the purpose of teacher action research, which links systematic inquiry with situated improvement (Burns, 2010; Cain, 2011). Project SEARCH should therefore begin with authentic school and classroom concerns rather than abstract methodological instruction alone. Workshops are more likely to transfer into completed studies when participants leave with a focused problem, an ethical and feasible design, a data plan, and continuing access to a mentor.

Time emerged as the clearest barrier. Research competes with teaching, lesson preparation, assessment, reporting, and other assigned functions. Capacity-building that adds meetings without protecting time may intensify the problem it intends to solve. The proposed program should integrate inquiry into existing professional-learning structures, use realistic milestones, permit team-based studies, and establish scheduled consultation and writing periods. Collaborative research can distribute technical demands while creating opportunities for peer learning and collective responsibility.

Limited methodological preparation and access to current publications further explain why favorable attitudes may not produce outputs. Research support should include question formulation, review of literature, ethical safeguards, instrument development, data analysis, and academic writing. It should also provide guided access to credible databases and opportunities for peer feedback. The institutional trajectory described by Lunar and Lunar (2026) suggests that sustained capability building, incentives, partnerships, and publication-quality support can coincide with stronger research visibility over time. For Project SEARCH, this evidence favors a sequenced mentoring model that follows studies from proposal development to dissemination, while using school-appropriate indicators such as completed studies, presentations, utilization, and ethically disseminated outputs rather than institutional ranking alone.

Recognition and resource support received comparatively weak ratings. A credible research culture requires more than awards, but recognition can signal that inquiry is valued when it is tied to quality, ethical conduct, utilization, and contribution to school improvement. Lunar, Eala, and Perez (2025) found that sustainability initiatives, particularly those involving social responsibility and governance, were strongly associated with perceived institutional effectiveness in their higher education sample. Applied cautiously to the present context, this finding suggests that research capacity should be embedded in routine governance and continuous-improvement processes rather than treated as an isolated training activity. Protected time, transparent access to modest research funds, mentoring responsibilities, and opportunities to use findings in school decisions would therefore complement recognition mechanisms and align with the enabling provisions of the Department of Education's research policies (Department of Education, 2016, 2017).

Implications for Project SEARCH

The findings provide an empirical basis for shaping Project SEARCH as a school-based research-capacity initiative. Its design should respond directly to the readiness–capacity gap identified in the study. Methodological learning should be linked to authentic classroom and school concerns, while mentoring and collaborative inquiry can help teachers move from interest to completed research. Opportunities to access current literature, receive feedback, disseminate findings, and obtain appropriate recognition may further strengthen participation. Most importantly, research support should be incorporated into existing professional-learning arrangements so that it does not add unnecessary workload. Subsequent evaluation should use measurable indicators such as concept notes developed, proposals approved, studies completed, findings presented, manuscripts submitted, and documented instances in which research informed school or classroom practice.

Limitations

This study has several limitations. It relied on self-reported perceptions from 40 teachers in one school and therefore cannot be generalized statistically to other settings. The total population and response rate were not reported, preventing independent assessment of sampling coverage. Although expert content review was described, no quantitative evidence of content validity, reliability, or construct validity was provided. One engagement statement was duplicated in the source results with different values; the repeated entry was excluded from the revised unique-item composite. The cross-sectional design also did not evaluate Project SEARCH or connect research engagement with verified outputs. These limitations should guide interpretation and the design of the program evaluation.

Conclusion

Secondary school teachers at San Nicolas Integrated High School generally valued educational research and recognized its relevance to teaching, but their engagement was constrained by time, competing responsibilities, methodological preparation, access to publications, resources, and institutional support. The study therefore supports an integrated response rather than a stand-alone seminar. Project SEARCH should combine relevant training with mentoring, collaborative inquiry, protected time, resource access, dissemination, and recognition. Its effectiveness must subsequently be evaluated using verified research outputs and repeated measures rather than perception data alone.

References

Borg, S. (2010). Language teacher research engagement. Language Teaching, 43(4), 391–429. https://doi.org/10.1017/S0261444810000170

Borg, S. (2013). Teacher research in language teaching: A critical analysis. Cambridge University Press.

Burns, A. (2010). Doing action research in English language teaching: A guide for practitioners. Routledge.

Cain, T. (2011). Teachers' classroom-based action research. International Journal of Research & Method in Education, 34(1), 3–16. https://doi.org/10.1080/1743727X.2011.552307

Department of Education. (2016). Adoption of the Basic Education Research Agenda (DepEd Order No. 39, s. 2016). https://www.deped.gov.ph/wp-content/uploads/2016/06/DO_s2016_039.pdf

Department of Education. (2017). Research Management Guidelines (DepEd Order No. 16, s. 2017). https://www.deped.gov.ph/wp-content/uploads/2017/03/DO_s2017_016.pdf

Lunar, B. C., Eala, C. M. C. M., & Perez, A. D. (2025). Sustainability initiatives as drivers of institutional effectiveness: Insights from San Pablo Colleges. Journal of Interdisciplinary Perspectives, 3(5), 52-62. https://doi.org/10.69569/jip.2025.014

Lunar, N. L., & Lunar, B. C. (2026). Mapping the research trajectory of San Pablo Colleges (2024-2026): A scientometric analysis of AD Scientific Index rankings. AJIMAS, 1(1), 131-144. https://doi.org/10.66206/eh.ajimas.53

Perez, A. D., & Lunar, B. C. (2025). Analyzing the relationship between research budget allocation and research output productivity in a private higher education institution. Cognizance Journal of Multidisciplinary Studies, 5(6), 351-365. https://doi.org/10.47760/cognizance.2025.v05i06.029

Vaughan, M., & Burnaford, G. (2016). Action research in graduate teacher education: A review of the literature 2000–2015. Educational Action Research, 24(2), 280–299. https://doi.org/10.1080/09650792.2015.1062408

EXPERT VALIDATION AND ACCEPTABILITY OF ELEMENTIA: A GAMIFIED INSTRUCTIONAL MATERIAL FOR TEACHING THE GRADE 8 MOST ESSENTIAL LEARNING COMPETENCIES ON THE PERIODIC TABLE

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Abstract

This study developed and evaluated ELEMENTIA, a gamified instructional material to teach the Grade 8 Most Essential Learning Competencies (MELCs) on the Periodic Table and determined its validity and acceptability. A developmental research design using the ADDIE model and a descriptive-evaluative research design was used to develop and evaluate ELEMENTIA. The respondents of the study included twenty-two (22) purposly-selected participants which included eleven (11) expert validators and eleven (11) science teachers from Misamis Occidental Science and Technology High School and public high schools in the Division of Oroquieta City. Two research instruments were used to collect data from the respondents namely the Expert Validator Evaluation Rubric and the Science Teacher Acceptability Rating Scale, both of which are comprised of five-point Likert scales. The data were analyzed using weighted mean and standard deviation, Mann-Whitney U test, and thematic content analysis. The experts rate the validity of the ELEMENTIA as highly valid, with an average score of 4.41 out of 5.0 (SD = 0.50) or 88.18% of the possible points. The accuracy and alignment of the content with the curriculum received the highest average score of 4.65 out of 5.0 (Outstanding), while the instruction and appropriateness of the teaching strategies received the lowest average score of 4.27 out of 5.0 (Very Satisfactory). The science teachers rate the ELEMENTIA as acceptable, with an average score of 4.50 out of 5.0 (SD = 0.51). A Mann-Whitney U test of the scores provided by the two groups of raters resulted in a U value of 36.0 and a p value of .112, indicating that there was no statistically significant difference in their assessments of the ELEMENTIA. Suggestions for improvement to the ELEMENTIA included the enrichment of the discussions of periodic trends and the electron configuration of elements, the improvement of the lesson plans regarding differentiation of instruction, the stating of clear, measurable learning objectives for each lesson, the provision of answer keys and rubrics for all assessments, the creation of a glossary of terms in Filipino for the resource, and a discussion of the structure of the game components of the ELEMENTIA. Based on these results, it can be stated that the ELEMENTIA is a valid, acceptable, and technically complete resource that is ready to be distributed to teachers and used in the classroom with minimal modifications. As such, it is recommended that the ELEMENTIA be further refined according to the suggestions provided by the teachers, that it be adopted as a resource to be utilized in the teaching of the periodic table, and that it be used in classroom

environments in the future as the aim of the current study to test the actual effect that the ELEMENTIA has upon students' performance in science classroom

Keywords: gamification, gamified instructional material, periodic table, expert validation, acceptability, developmental research, ADDIE model

Introduction

In the current world driven by science and technology, science education is crucial for all learners who wish to prepare for such a future. However, the quality of science education is an issue in many countries today, thus prompting educators and researchers to consider new and creative methods of making the science subjects more accessible and engaging for learners of all ages. One such strategy that has received a great deal of scholarly interest is the process of gamification - the idea of applying the elements of game-based design to non-game contexts, such as education.

Research employing meta-analytic methods reveals that the use of gamification in education creates a considerable and favorable influence on students' academic performance (Zeng et al., 2024), as well as enhances their feelings of motivation to learn, a sense of autonomy in their education, and a feeling of relatedness to their educators and other students (Li et al., 2024). Furthermore, syntheses of the basic research in education reveals similar findings, wherein learners who are exposed to gaming aspects within their classrooms exhibit considerable improvements in their science achievement and motivation compared to students who are not exposed to these gaming elements (Diaz & Estoque-Loñez, 2024; Kurnaz & Koçtürk, 2025; Lampropoulos & Sidiropoulos, 2024). Even more important than these findings, however, are the facts of the science education deficit that exists in many Filipino schools. Filipino students scored an average of 356 points in science in the 2022 PISA test, compared to an average score of 485 points for students from the other member countries of the OECD (OECD, 2023). Furthermore, the Philippines ranked among the bottom 81 countries in science education overall, with these 15-year-old students scoring below a level 2 proficiency in science in 77% of cases (OECD, 2023).

As the majority of students that take the PISA examination are of Grade 9 and 10 ages, these results demonstrate the quality of chemistry education within the country's secondary schools. According to the Second Congressional Commission on Education (EDCOM 2, 2024), the education system within the country is experiencing a full-blown learning crisis caused mainly by the lack of quality-assured learning resources within public schools, especially after the significant learning losses the country's students endured during the pandemic school closures. Chemistry is one of the most difficult science subjects to learn well in high school.

The periodic table alone requires students to shift between concepts relating to the macroscopic world of chemistry to the submicroscopic world of chemistry. These types of conceptual shifts are often too much for Grade 8 students, who are being introduced to these concepts for the first time. For instance, the K to 12 Curriculum, streamlined into

the Most Essential Learning Competencies (MELCs) for Grade 8 students, require students to be able to use the periodic table to determine the chemical behavior of a given element, as well as to understand the development of the periodic table itself (DepEd, 2020). However, local research into the knowledge of these students regarding these topics reveals that Grade 8 students struggle with these concepts and knowledge areas - they do not have an understanding of the periodic trends in the elements, for instance (Conel, 2022). Furthermore, the abstract nature of the concepts, as well as the lack of appropriate learning materials in many public schools, indicates a potential reason that these students are struggling - they have fallen behind early in their chemistry course, and that deficit is growing as more chemistry concepts depend upon that early knowledge.

This is true for the case of Misamis Occidental Science and Technology High School where the researcher is the teacher for the Grade 8 Science class. The competency regarding the periodic table was found to be the least mastered by the Grade 8 students despite the science thrust of the school. Even within the classroom, the observed students were not engaged during the lesson on the periodic table. The textbooks contain a lot of text with little opportunity for the students to be actively engaged with the periodic table content. Furthermore, there are no additional teaching materials that could be used as learning activities that are gamified and connected to the experiences of Filipino students in particular. Thus, the teachers have to improvise some activities that may be well-intentioned but lack accuracy in terms of their content and usefulness to teach the topic of the periodic table.

Gamification is a viable solution to this problem. Studies have proven that the use of game-based materials in the teaching of mathematics to Grade 8 learners in the Philippines has been effective in enhancing the performance of these students (Orbon & Sapin, 2022). Additionally, various studies in the local literature continue to report the engagement of students when using gamified and game-based learning in their basic education classrooms (Abendan, 2023; Adlaon, 2025; Almonia, 2024). Furthermore, the use of gamification does not require any sophisticated technology. The use of print-based materials that are gamified would be of great benefit to the public schools of the Philippines, which have limited connectivity to the internet and digital educational technology.

Gamified educational material can help to keep the attention of students on the subject matter that they would otherwise find to be abstract and remote. The value of any educational resource depends upon the quality of that resource, and the quality of any resource cannot be assumed but must be proven through examination of that resource.

The Department of Education places great importance on the quality assurance policies concerning the assessment of learning resources from aspects like content, format, and design before they are introduced into the classroom. Most research continuously highlights the importance of using experts to validate the learning materials and to ensure that the people who will be exposed to the learning resources find them to be acceptable (Campomanes, 2023; Pinuela, 2025). Cruz (2023) provides another example of the importance of using experts and classroom instructors to assess the

learning resources. Experts will ensure that the content and its design are correct, while the classroom instructors will ensure that the resource is acceptable within the classroom.

There is a huge gap in the local literature. While there are a lot of studies concerning the use of gamification in the Philippine classrooms, few have focused on validating the acceptability of print-based gamified learning resources for Grade 8 chemistry MELCs. Even fewer studies have been conducted in the Misamis Occidental classroom context. The Department of Education continuously produces these learning materials and sends them to the students without ensuring their functionality.

This study produced a print-based gamified instructional material called ELEMENTIA to teach the Grade 8 Most Essential Learning Competencies regarding the periodic table of elements. Such a newly-developed instructional material was also subjected to evaluation by experts in the field to determine its validity and acceptability. Experts evaluated the content validity and alignment of the instructional material with the MELCs for the Grade 8 science curriculum, while science teachers evaluated the acceptability of the aims, content, format, and potential usefulness of the ELEMENTIA instructional material. Thus, by creating an instructional material that can be used to teach these concepts to Grade 8 students in the Philippines, and by gaining validation and acceptability of such a product before its implementation in the classroom, it is likely that the periodic table concepts may be better taught throughout the Philippines, contributing to the improvement of the scientific literacy of all Filipino students. of gamification significantly increased the intrinsic motivation of the learners relative to conventional learning methods. Finally, Kurnaz & Koçtürk (2025) performed a meta-analysis of the studies on the use of gamification in learning environments and found that the results generally confirmed the effect of gamification on improving student motivation, particularly within K-12 education - the level of education of which this current study intends to address. Thus, the motivation elements of ELEMENTIA were based upon Self-Determination Theory, providing learners with the abilities to fulfill each of these three needs.

In general, then, the integration of these four theories provided a basis for the development and evaluation of the instructional material that was developed through gamification. Gamification Theory provided a justification for the use of game elements within the learning material. Constructivism provided a basis for the interaction that the learners were to have with the learning material. Cognitive Load Theory provided a justification for the format of the learning material itself. Finally, Self-Determination Theory provided a justification for the motivation that was to be provided to the learners to use the learning material. These four theories directly relate to the evaluation criteria that was used to assess ELEMENTIA by the expert validators and science teachers.

Methods

Chapter 5 presents the methods and procedures that were employed in the study to develop and evaluate the effectiveness of the Gamified Instructional Material for teaching the concepts of the Periodic Table to Grade 8 students. The chapter describes

the research design that was utilized in the study, the individuals that were to evaluate the instructional material, the tools that were used to gather the data regarding the effectiveness of the material, the procedures that were followed to gather the data, and the statistical treatment of that data. Together, these components of the chapter describe the process through which the instructional material was developed, validated, and evaluated to ensure the reliability and credibility of the study's findings.

Research Design

The development of this study employs a developmental research design. The ADDIE model for instructional design (analysis, design, development, implementation, and evaluation) will be used to develop and evaluate the Gamified Instructional Material for the teaching of concepts of the Periodic Table to Grade 8 students. Developmental research is a type of research that is used to design, develop and validate a product (Richey & Klein, 2007). More specifically, it is a type of research wherein the researcher creates an artifact and evaluates the artifact according to a series of systematic procedures.

Considering the purpose of the study, which is not to measure the academic performance of students or to test a hypothesis regarding the effectiveness of the instruction, but rather to develop an instruction that is both valid and acceptable for its intended use with Grade 8 Chemistry students, especially regarding the topic of the Periodic Table of Elements, this type of research design is the most appropriate. Such a research framework will allow the researcher to analyze the needs of the learners, design the gamified learning components according to the competencies requirements of DepEd's Grade 8 Science course, develop the instructional components of the gamified instructional material, submit the gamified instructional material to experts and teachers for review and evaluation, and according to the feedback that is provided in response to the review of that instructional material, make any necessary revisions to the content. This type of research study will ensure that the gamified instructional material that is developed will be appropriate for and beneficial to be applied within the public-school systems of the Philippines.

Within the evaluation phase of the study is the use of descriptive-evaluative approaches. A descriptive study explains the features, characteristics or dimensions of a phenomenon (Creswell & Creswell, 2023). The descriptive method was utilized by the study to describe the level of validity and acceptance of the Gamified Instructional Material as measured and provided by both the expert validators and science teachers. Furthermore, the evaluative approach enabled the researcher to determine if there were any significant discrepancies between the validation and acceptance ratings of the two groups of respondents, which would provide data regarding the necessary modifications of the instructional material.

The combination of the developmental and descriptive-evaluative approaches to research is, therefore, the most appropriate methodology to be utilized in conducting this specific study, especially since the objectives of the study are to develop a gamified instructional material, to assess the validity and acceptability of the gamified instructional material, to compare the assessments among the groups of evaluators of that instructional

material, and to gather recommendations for the improvement of that instructional material. Furthermore, this type of methodology is utilized in numerous Philippine research studies related to the development of instructional materials (Pinuela, 2025; Campomanes, 2023; Cruz, 2023) as well as in international research in relation to best practices in the research of instructional design (Branch, 2009; Dick et al., 2015).

Respondents of the Study

In this study, the respondents are grouped into two categories: expert validators and Science teachers. These individuals will act as the evaluators of the Gamified Instructional Material. Their selection is based on the framework that will be utilized in evaluating the validity of the instructional material.

The first group consists of eleven (11) expert validators. These expert validators will be selected based on the following criteria: they should have at least a master's degree in the field of science education, chemistry, or instructional design; they should have at least five (5) years of experience in the field of science education, curriculum development, or the development of instructional material; and they should be employed in academic institutions in the Division of Oroquieta City or in other higher education institutions in the region. The experts that will be part of this group are science education professionals, experienced chemistry teachers, and curriculum experts. This group will evaluate the instructional material for its accuracy in relation to the K to 12 curriculum, the design of the instructional material, the quality of the learning activities included in the material, and the gamification of the educational content within the material.

The second group consists of eleven (11) Science teachers coming from Misamis Occidental Science and Technology High School as well as other public high schools within the Division of Oroquieta City. These teachers were specifically selected based on the following criteria: (1) they are instructors of Grade 8 Science or have taught the subject previously; (2) they hold a Bachelor of Secondary Education with a major in Science or its equivalent; and (3) they are either regular or permanent employees of the Department of Education. These teachers will be the main users of the Gamified Instructional Material. Thus, they are the most appropriate individuals to survey and assess the acceptability of the Gamified Instructional Material.

There will be twenty-two (22) respondents for the survey of the Gamified Instructional Material, consisting of eleven (11) expert validators and eleven (11) Science teachers. This relatively small group of participants was selected as representative of the target audience of learners in the Philippines. Furthermore, the number of participants corresponds with previous research into the subject matter that was performed within the Philippine nation (Cruz, 2023; Pinuela, 2025). The demographic makeup of the participants will be presented in the following table.

Table 1

Distribution of Respondents

Category of Respondents	Number	Percentage (%)
Expert Validators	11	50
Science Teachers	11	50
Total	**22**	**100.0**

Note. n = 22.

Table 1 presents the distribution of the respondents who participate in the evaluation of the Gamified Instructional Material. There are twenty-two (22) respondents that will be equally divided into two categories: eleven (11) expert validators and eleven (11) Science teachers. Each category represents 50.0% of the total number of the respondents.

The representation of expert validators and Science teachers for the evaluation of the Gamified Instructional Material ensures that the feedback and assessments for the instructional material will include the perspectives and opinions of both experts in the field of instructional material development and actual Science teachers who will be utilizing such material in their classrooms. Expert validators will provide feedback on the content and the gamification of the instructional material, while Science teachers will provide feedback on the classroom applicability of the material. The combination of these two groups of respondents ensures the validity of the feedback and opinion regarding the instructional material that was developed.

Data Gathering Tools

Two instruments for collecting the data necessary to answer the research problems are developed and utilized in this study. Both of these instruments were created by the researcher and are utilized to evaluate the Gamified Instructional Material along the dimensions stated in the problem statement.

Instrument 1: Expert Validator Evaluation Rubric. The first of the tools to be utilized by the expert validators to assess the validity of the Gamified Instructional Material is a rubric that aims to evaluate the material according to four dimensions that relate to the sub-problems of the first specific problem of the study. These four dimensions relate to the accuracy of the content of the instruction material (in relation to the curriculum for K-12 students), the instructional design of the lesson, the clarity of the lesson, and the quality of the gamification elements included within the instructional material. Each of these dimensions will be evaluated according to a series of indicators that were scored on a five-point Likert scale ranging from 1 (Poor) to 5 (Outstanding).

The rubric was developed by the researcher based upon existing frameworks regarding the evaluation of instructional materials, such as those created by the Department of Education (DepEd) for locally developed instructional materials (DepEd

Order No. 31, s. 2012), the Quality Standards for Instructional Materials (QSIM) framework, and through the integration of research-based indicators regarding the evaluation of gamified educational content (Deterding et al., 2011; Werbach & Hunter, 2012; Li, Ma, & Shi, 2023). Additionally, the rubric was reviewed by the researcher's thesis adviser to ensure that the indicators were appropriate and compatible with the conceptual framework of the investigation.

Instrument 2: Science Teacher Acceptability Rating Scale. The second instrument to be utilized is the Likert-scale questionnaire. This instrument will be utilized by the scientific teachers to determine the acceptability of the Gamified Instructional Material. There will be four aspects included in the questionnaire that will aim to evaluate the sub-problems regarding the second specific problem. There will also be particular indications for each of the aspects that are to be scored on the same five-point Likert scale.

The Likert scale will be adapted from the instruments that were used to assess the acceptability of the same type of material created for the same target audience within the Philippine setting (Pinuela, 2025; Cruz, 2023). However, the indicators within the question will be modified to ensure that they match the features of the Gamified Learning Kit. Additionally, both questionnaires will include an open-ended portion to assess the teachers' comments, suggestions, and proposals regarding the enhancement of the Gamified Learning Kit.

Both of the instruments were validated prior to their use in the research study. The rubric and rating scale were provided to three (3) validation experts in the field of educational research and science to review the instrument for validity. Based upon the feedback of these experts, some edits were made to the instrument to better clarify the various indicators that were to be scored on the instrument. Finally, both instruments were piloted on a small group of teachers to assess their comprehensibility and to determine the dependability of the instruments. A Cronbach's alpha coefficient was calculated for each instrument and a value of 0.80 or higher was utilized as the cut-off point for the dependability of the instruments (Pallant, 2020).

The rating scale used to interpret the mean scores from both instruments is presented in Table 2 below.

Table 2

Descriptive Rating Scale for the Gamified Instructional Material

Scale	Range	Descriptive Rating	Interpretation
5	4.50 – 5.00	Outstanding	The gamified instructional material is excellent in the assessed criterion.
4	3.50 – 4.49	Very Satisfactory	The gamified instructional material demonstrates a high level of quality in the assessed criterion.

3	2.50 – 3.49	Satisfactory	The gamified instructional material meets the requirements adequately in the assessed criterion.
2	1.50 – 2.49	Fair	The gamified instructional material partially meets the requirements in the assessed criterion.
1	1.00 – 1.49	Poor	The gamified instructional material does not meet the requirements in the assessed criterion.

Data Gathering Procedures

The data gathering process of this study follows a systematic step-by-step strategy in line with the ADDIE developmental research model. The following stages outline how data are acquired from both sets of respondents.

Step 1: Securing Research Permissions. In connection with the study, permits and clearances shall first be obtained from the proper authorities. A letter of request for permission to conduct the study shall be prepared and submitted to the Schools Division Superintendent of Division of Oroquieta City. Separate letters shall be sent to each of the school principals in whom the science teacher respondents are presently employed. Each of these letters shall contain a description of the study, its objective and scope, as well as assuring the teachers of the voluntary nature of their participation in the study and the necessity of the confidentiality of the data that will be obtained from the teachers.

Step 2: Development of the Gamified Instructional Material. Based on the ADDIE instructional design model, the researcher will develop the Gamified Instructional Material. The ADDIE model includes stages of analysis and design. The analysis phase involves conducting a needs assessment to determine the learning challenges of Grade 8 students enrolled in the Periodic Table course and reviewing the requirements of the K-12 Science competency standards. During the design phase, the researcher will create the overall layout of the gamified instructional material, including the elements of gamification, the learning objectives, and the activities to be included within the gamified material.

Step 3: Instrument Preparation and Validation. The Expert Validator Evaluation Rubric and the Science Teacher Acceptability Rating Scale will be finalized following the validation procedure described in the Data Gathering Tools section. Once validated, the instruments will be prepared in their ready-to-print pdf file to be distributed to the respondents of the study.

Step 4: Selection and Orientation of Respondents. The experts and science teachers to be utilized for this study have been identified and selected based on the criteria for the sample of respondents as indicated in the Respondents section of this study. Prior to the actual evaluation of the Gamified Instructional Material, each of the sets of respondents will be provided with an orientation to the study. During this orientation

session, the objectives of the study will be explained, the components of the Gamified Instructional Material will be defined, its use will be described, and any questions that the experts or teachers may have regarding the study will be addressed. Following the orientation session, the Gamified Instructional Material will be provided sufficient time to examine the material prior to the completion of the evaluation forms by each of the experts and teachers.

Step 5: Administration of the Evaluation Instruments. The evaluation instruments will be personally administered by the researcher to the two groups of respondents. The expert validators will be provided with the evaluation rubric and a pdf copy of the gamified instructional material that will be used for their evaluation for a period of three to five days. The science teachers will be given a copy of the gamified instructional material to read over prior to completing the questionnaire and will be given the acceptability rating scale. Once all of the respondents have completed the evaluation of the gamified instructional material, the researcher will collect the questionnaire and evaluation instruments.

Step 6: Collection of Qualitative Feedback. In addition to receiving the quantitative data from the respondents, the researcher also receives the written comments, ideas, and recommendations from each of the two groups of respondents. These qualitative responses are collected, sorted, and stored for later study and potential use in the updating of the existing gamified instructional material.

Step 7: Data Collation and Encoding. After all of the instruments have been collected from each of the participants, the researcher will begin to collate and encode the data. The quantitative data from each of the instruments will be counted, tabulated, and encoded into a spreadsheet for statistical analysis. The qualitative data will be transcribed into a separate data file. Both the quantitative and qualitative data will be analyzed by the researcher to determine if the data is complete and intact. Following this step, the researcher will begin to analyze the collected data from the participants.

Statistical Treatment of Data

The data gathered from the expert validator evaluation rubric and the science teacher acceptability rating scale will be processed and analyzed using descriptive and inferential statistical procedures. The following statistical tools will be used to address each of the specific problems of the study.

Weighted Mean. The weighted mean will be utilized to determine the level of validity of the Gamified Instructional Material as evaluated by the expert validators (Specific Problem 1) and the level of acceptability of the instructional material as evaluated by the science teachers (Specific Problem 2). The weighted mean will be used to determine the mean score for each indicator and for each dimension of the evaluation rubrics and rating scales, as well as for the overall evaluation of the experts and the science teachers. The weighted mean score for each evaluation will be interpreted using the five-point rating scale and the labels for the ratings provided in Table 2. The weighted mean is a measurement of central tendency that is used in survey research to determine the

mean scores of the individual items within a survey instrument that is completed by a group of individuals (Pallant, 2020; Field, 2018). The weighted mean is also a statistic that is utilized in the assessment of the validity of educational materials in other research studies in the Philippines (Cruz, 2023; Pinuela, 2025).

Standard Deviation. The standard deviation is calculated alongside the weighted mean to indicate the degree of variation or consensus in the ratings given by the respondents within each group. A low standard deviation within a group indicates that the experts within that group have a high degree of agreement with one another in their assessments. A high standard deviation within a group indicates a divergence of opinions among the experts in that group.

Mann-Whitney U Test. The Mann-Whitney U test will be used to determine whether there is a significant difference in the ratings of the expert validators and science teachers regarding the validity of the Gamified Instructional Material (Specific Problem 3). The Mann-Whitney U test will be used instead of the independent samples t-test as the sample sizes are small ($n = 11$ for both expert validators and science teachers) making it difficult to confirm that the data is normally distributed (Pallant, 2020; Field, 2018). Non-parametric tests are more robust in small sample sizes and are appropriate for the data that will be used for this test. The level of significance that will be used for this test is $\alpha = 0.05$.

Frequency Count and Percentage. The frequency count and percentage values will be utilized to present and analyze the profile of the respondents. Such an analysis will help to present information regarding the respondents' demographics, such as their educational level, teaching experience, and field of specialization.

Qualitative Content Analysis. To address Specific Problem 4 regarding the suggested improvements and recommendations from the expert validators and science teachers, the qualitative comments and suggestions collected from the open-ended questions will be analyzed. Specifically, the researcher will analyze the comments and suggestions to recognize the themes and categories within the suggestions. These recognized themes will help to indicate the types of suggested improvements to the Gamified Learning Kit.

These statistical and analytical procedures will provide a comprehensive answer to all four specific problems of the study. The conclusions regarding the validity, acceptability, improvement, and recommendations for the Gamified Learning Kit are formed through both analysis of the data that was gathered during the evaluation of the kit by the expert validators and science teachers, as well as through the professional judgment of the evaluator regarding that data. The data gathered through the evaluation rubric and the acceptability survey were processed through the following statistical procedures and tools.

The first of the statistical tools that will be employed in this study is the calculation of the weighted mean. The weighted mean will be used to determine the level of validity of the Gamified Instructional Material as assessed by the expert validators (Specific

Problem 1), as well as to determine the level of acceptability of the kit as evaluated by the participating science teachers (Specific Problem 2). For each of the indicators that were evaluated by the expert validators and science teachers, as well as for each of the dimensions of the validation and acceptability surveys, a weighted mean will be calculated. Furthermore, a weighted mean will be calculated for each of the groups of evaluators (expert validators and science teachers) for the entire kit. Each of these means will be interpreted according to the five-point rating scale for each of the evaluation instruments, as presented in Table 2. The weighted mean is the most common mean of determining the average of a set of values, and is often used in educational research to determine the average ratings of a group of readers, teachers, and other individuals of importance to the research study (Pallant, 2020; Field, 2018). Additionally, the weighted mean is also used within other research studies that have evaluated the validity and acceptability of similar instructional materials and kits within the Philippine context (Cruz, 2023; Pinuela, 2025).

Standard Deviation. The standard deviation is calculated alongside the weighted mean to determine the degree of variability or consensus in the ratings of the respondents within each group. A low standard deviation indicates that the expert validators had a high degree of agreement with one another in their ratings of the instructional material. A high standard deviation, however, indicates that there were differences in the opinions of the experts regarding the quality of the instructional material.

Mann-Whitney U Test. The Mann-Whitney U test will be used to determine any significant differences in the ratings of the expert validators and science teachers regarding the validity of the Gamified Instructional Material (Specific Problem 3). The Mann-Whitney U test will be utilized in place of the independent samples t-test due to the small size of the groups to be tested (n=11 in each group). As a result, it is difficult to determine if the assumption of normality of the distribution of the samples is reliably met (Pallant, 2020; Field, 2018). Non-parametric tests are more robust in the face of violations of normality and therefore are more appropriate in these small samples of data. Furthermore, the data from the validation study will be evaluated to determine if there is a significant difference in the ratings of the two groups with a significance level of $\alpha = 0.05$.

Frequency Count and Percentage. Furthermore, a frequency count and percentage analysis will be performed for the data regarding the profiles of the respondents to determine the composition of the group of individuals who will evaluate the learning kit. The frequency count and percentage analyses will provide information regarding the demographic profiles of each of the respondents, such as their level of education, teaching experience, and field of specialization.

Qualitative Content Analysis. Furthermore, in response to Specific Problem 4 regarding the improvements and recommendations that will be made by the expert validators and science teachers, the qualitative information that was gained from the evaluation instruments will be analyzed to determine the different themes and categories of recommendations that can be made to the Gamified Learning Kit. These themes will

help to influence the changes that will be made to the existing kit to provide a more effective learning experience to its players and students.

Together, these statistical analyses and evaluations will allow the researcher to fully address each of the four Specific Problems that were to be answered in this report. Thus, conclusions regarding the validity, acceptability, comparative analysis, and suggested improvements of the Gamified Learning Kit will be based upon these analyses and evaluations.

Results and Discussion

Chapter 4 presents the analysis and interpretation of the data that was collected during the evaluation of the Gamified Instructional Material that was developed for the teaching of concepts related to the Periodic Table to Grade 8 students at the school. The data is presented according to the order in which the specific problems were stated in Chapter 1. The first problem stated in Chapter 1 is related to the profile of the students that were to evaluate the material. Following this is a discussion of the level of validity of the instructional material as evaluated by the expert validators, the level of acceptability of the material as evaluated by the science teachers, a test of significant difference in the evaluations of the two groups of students, and the suggestions that were offered regarding the improvements to the instructional material. The quantitative data will be presented in the form of weighted means and standard deviations, with the interpretations of those values determined using the scales that were established in Chapter 3, while the qualitative data will be presented in the form of a discussion of the themes that emerged during the evaluation of the responses to the evaluation of the instructional material.

Profile of the Respondents

The gamified instructional material was assessed by twenty-two (22) respondents, consisting of eleven (11) expert validators and eleven (11) scientific teachers. The profile of the assessors indicates their expertise. The expertise of the assessors of the instructional material is crucial to the validation of the development of the instructional material itself (Stufflebeam & Shinkfield, 2007).

Table 3

Profile of the Expert Validators (n = 11)

Variable	Category	Frequency	Percentage
Highest Educational Attainment	Doctorate Degree	2	18.1
	Master's Degree	9	81.9
Area of Specialization	Science Education	5	45.5
	Chemistry	5	45.5
	Curriculum / Instructional Design	1	9.09

Years of Experience	5 – 9 years	3	27.3
	10 – 14 years	4	36.4
	15 – 19 years	2	18.2
	20 years and above	2	18.2

Note. Percentages are computed against the total number of expert validators (n = 11).

All of the validator experts had an advanced degree (Table 3). Nine (81.9%) had a master's degree and two (18.1%) had a doctorate. Their areas of specialty included scientific education (45.5%), chemistry (45.5%) and curriculum or instructional design (9.09%). Expert validators have a minimum of 5 years of experience in the field; 8 (72.8%) have at least 10 years of experience. Thus, the expertise of these validators meets the criteria for the sample as expressed in Chapter 3. Moreover, the opinions of experts is a justified index of the quality of the products as described by authors and experts in the field (Stufflebeam & Shinkfield, 2007).

Table 4

Profile of the Science Teachers (n = 11)

Variable	Category	Frequency	Percentage
Highest Educational Attainment	Master's Degree	2	18.2
	Bachelor's Degree with M.A. units	4	36.4
	Bachelor's Degree	5	45.5
Years of Teaching Science	1 – 5 years	3	27.3
	6 – 10 years	4	36.4
	11 – 15 years	3	27.3
	16 years and above	1	9.1

Note. Percentages are computed against the total number of science teachers (n = 11).

Table 4 indicates that the science teacher respondents were all very experienced teachers within the classroom. Two (18.2%) had even completed a master's degree in relation to their field of education, four (36.4%) had earned graduate units in their teaching career, and the remaining five (45.5%) had a degree in secondary education. Furthermore, all of the teachers indicated that they had taught Grade 8 science for six years or more, indicating that three (27.3%) were in the less experienced range for teachers. However, as these individuals are the end-users of the educational materials to be published from this research, their experience with creating and teaching science classrooms increases the credibility of their responses on the topic of the practicality of the suggested content (Adlaon, 2025).

Level of Validity of the Gamified Instructional Material as Assessed by Expert Validators

The first specific problem that will be addressed is the determination of the level of validity of the Gamified Instructional Material that was developed, which is performed by assessing the opinions of the eleven expert validators regarding the Accuracy, Appropriateness, Clarity, and Quality of the instructional material and its gamification elements. The results of these assessments are presented in Tables 5 to 9 in the form of the weighted means and standard deviations of each of the indicators and dimensions.

Accuracy of Content and Alignment with the K to 12 Curriculum

Table 5

Validity of the Material in Terms of Accuracy of Content and Alignment with the K to 12 Curriculum

Item	Indicator	Mean	SD	Interpretation
1.1	The content is factually accurate, free from errors, and consistent with established disciplinary knowledge and current scholarly standards.	4.64	0.50	Outstanding
1.2	The learning objectives explicitly align with the prescribed K-12 Most Essential Learning Competencies (MELCs) or the relevant content and performance standards of the subject area and grade level.	4.82	0.40	Outstanding
1.3	The depth and breadth of content are appropriate to the target learners' grade level and developmental stage as specified in the K-12 curriculum guide.	4.64	0.50	Outstanding
1.4	The content integrates accurate real-world applications, examples, and contexts that are culturally relevant and appropriate for Filipino learners.	4.45	0.52	Very Satisfactory
1.5	The materials include proper citations, references, and attributions that adhere to ethical standards and intellectual property guidelines (DepEd Order No. 31, s. 2012).	5.00	0.00	Outstanding
1.6	The content is free from bias, stereotyping, and discriminatory language, and promotes inclusive, multicultural education consistent with DepEd values.	4.27	0.47	Very Satisfactory

1.7	The language used is precise, grade-appropriate, and free from technical inaccuracies, misconceptions, or ambiguous statements that may mislead learners.	4.73	0.47	Outstanding
	Dimension Mean	*4.65*	*0.48*	*Outstanding*

Note. n = 11. Scale: 4.50–5.00 Outstanding; 3.50–4.49 Very Satisfactory; 2.50–3.49 Satisfactory; 1.50–2.49 Fair; 1.00–1.49 Poor.

Validity of the Material in Terms of Accuracy of Content and Alignment with the K to 12 Note. n = 11. Scale: 4.50–5.00 Outstanding; 3.50–4.49 Very Satisfactory; 2.50–3.49 Satisfactory; 1.50–2.49 Fair; 1.00–1.49 Poor.

Table 5 demonstrates that the content dimension was considered outstanding by the expert validators, receiving the highest mean score of 4.65 (SD = 0.48) out of the four validity dimensions. Item 1.5, which probed the expert validators about proper cites, references and attributions of content to sources, received a perfect score of 5.00 with zero variance from the other responses from the expert validators. Similarly, Items 1.2 (alignment with the MELCs) and 1.7 (usage of precise, grade-appropriate language) also received mean scores of 4.82 and 4.73, respectively, both of which indicate an outstanding rating. Items 1.6 and 1.4, however, which probed for the presence of freedom from bias and discriminatory language and inclusion of culturally appropriate Filipino contexts within the content, respectively, received relatively lower mean scores of 4.27 and 4.45. Nevertheless, the standard deviations for all items within this dimension were small values of 0.52 or less, indicating that all validators agreed with the claims of accuracy of the content of the periodic table and alignment of its content with the skills that should be acquired by Grade 8 students regarding the Periodic Table of Elements as defined by the Department of Education (2016). These findings support the literature that correctness of the content and alignment to a curriculum are the foremost requirements for any instructional material to be utilized in formal education systems (Chowdhury, 2022; Sari et al., 2023).

Instructional Design and Pedagogical Appropriateness

Table 6

Validity of the Material in Terms of Instructional Design and Pedagogical Appropriateness

Item	Indicator	Mean	SD	Interpretation
2.1	The instructional material follows a coherent and research-based instructional framework (e.g., Backward Design, 5E Model, or equivalent) that systematically moves learners from engagement to mastery.	4.36	0.50	Very Satisfactory

2.2	Learning objectives are stated in measurable, behavioral terms using appropriate action verbs aligned to the target cognitive levels of Bloom's Revised Taxonomy.	4.55	0.52	Outstanding
2.3	The instructional sequence follows a logical, scaffolded progression that builds on learners' prior knowledge and gradually increases in complexity (Vygotsky's Zone of Proximal Development).	4.36	0.50	Very Satisfactory
2.4	Activities and tasks are designed to promote higher-order thinking skills (HOTS), including analysis, evaluation, synthesis, and creative problem-solving.	4.36	0.50	Very Satisfactory
2.5	The gamified instructional material incorporates diverse instructional strategies (e.g., cooperative learning, inquiry-based tasks, discovery learning) that accommodate multiple learning styles and intelligences.	4.27	0.47	Very Satisfactory
2.6	Assessment activities (formative and summative) are meaningfully integrated, directly aligned with learning objectives, and provide timely feedback to guide learners.	4.18	0.40	Very Satisfactory
2.7	The gamified instructional material appropriately differentiates instruction to address learners with varying abilities, including provisions for enrichment and remediation.	4.09	0.54	Very Satisfactory
2.8	Time allocation for each activity and the overall material is realistic, developmentally appropriate, and consistent with the prescribed curriculum time frame.	4.00	0.00	Very Satisfactory
	Dimension Mean	4.27	0.47	Very Satisfactory

Note. n = 11. Scale: 4.50–5.00 Outstanding; 3.50–4.49 Very Satisfactory; 2.50–3.49 Satisfactory; 1.50–2.49 Fair; 1.00–1.49 Poor.

The next dimension to review in the validity of the FOPM scales was its mean score for the instructional design dimension. This dimension scored the lowest of the four validity dimensions for the FOPM, with a mean of 4.27 (SD = .47) and was regarded as "Very Satisfactory" (see Table 6). For the description of the measurable learning objectives for each module, Item 2.2 received the highest score for validity from the

validators with a mean of 4.55 (Outstanding). The items that received the lowest mean scores were Item 2.8, which asked about the realism of the time allocated for each module (4.00 mean, all respondents provided the same answer, SD = 0.00), Item 2.7 that asked about the facilitator's consideration of the abilities of the students within the class (4.09 mean), and Item 2.6 that asked whether the assessments would be meaningfully incorporated into the overall module (4.18 mean). Thus, each of these items were within the "Very Satisfactory" range, yet the lowest means suggest that the area of the FOPM that is most in need of modification includes the creation of learning modules that are both realistically timed and that can accommodate for the varying abilities of the students within each enrolled classroom. Each of these factors relate to the literature regarding instructional design and the importance of ensuring that the learning materials that are created for each course incorporate elements that allow for the drawing upon of previous knowledge and for the consideration of each individual learner within the classroom (Evans et al., 2024; Dick et al., 2015). Furthermore, because studies have revealed the variations in the formal operational thinking of even secondary school students in the Philippines, it is important to create learning modules that accommodate for the difference in learning abilities within each class (Abendan, 2023).

Clarity and Organization of Learning Activities

Table 7

Validity of the Material in Terms of Clarity and Organization of Learning Activities

Item	Indicator	Mean	SD	Interpretation
3.1	Instructions for all activities are written in clear, concise, and unambiguous language that learners can independently understand without requiring additional teacher clarification.	4.36	0.50	Very Satisfactory
3.2	The overall layout and structural organization of the gamified instructional material is logical, with a well-defined sequence of parts (e.g., introduction, activities, assessment, reflection) that facilitates ease of use.	4.64	0.50	Outstanding
3.3	Visual elements (illustrations, diagrams, charts, icons) are purposeful, aesthetically appropriate, and effectively support and reinforce the learning content.	4.55	0.52	Outstanding
3.4	Typography, color schemes, and graphic design elements are consistent, professional, and appropriate for the target grade level and subject area.	4.27	0.47	Very Satisfactory

3.5	Transition cues, numbering, headings, and other navigational devices are clearly provided to guide learners through the activities in a coherent and logical manner.	4.27	0.47	Very Satisfactory
3.6	The language register and vocabulary level are appropriate to the learners' proficiency and are consistently maintained throughout the entire material.	4.55	0.52	Outstanding
3.7	Activity sheets and task formats are well-structured, with sufficient and clearly demarcated space for learner responses, drawings, or written outputs.	4.27	0.47	Very Satisfactory
	Dimension Mean	*4.42*	*0.50*	*Very Satisfactory*

Note. n = 11. Scale: 4.50–5.00 Outstanding; 3.50–4.49 Very Satisfactory; 2.50–3.49 Satisfactory; 1.50–2.49 Fair; 1.00–1.49 Poor.

Table 7 demonstrates that the clarity and organization dimension received a rating of "Very Satisfactory" with a mean of 4.42 (SD = 0.50). The logical layout and organization of the content (Item 3.2, M = 4.64) was the highest rated aspect of the quiz with an "Outstanding" mean, followed by the purposeful use of visual elements (Item 3.3, M = 4.55) and the use of consistent language throughout the assessment (Item 3.6, M = 4.55). The aspects of the quiz related to the typography and graphic design of the quiz (Item 3.4, M = 4.27), the navigational elements of the quiz (Item 3.5, M = 4.27), and the demarcation of the response area for each question (Item 3.7, M = 4.27) received comparatively lower ratings for "Outstanding" use. These results are in alignment with Mayer's (2009) Cognitive Theory of Multimedia Learning in that he believes that organizing the content in a logical way for the learners to read can reduce the cognitive load to process the content. Additionally, incorrect assumptions regarding science topics by learners can lead to the development of misconceptions within that topic (Sari et al., 2023). Thus, the quiz indicates that it is well organized and easy to use by the readers, but there are opportunities for improvements in certain aspects of the quiz layout (Ouwehand et al., 2025).

Quality of Gamification Elements

Table 8

Validity of the Material in Terms of Quality of Gamification Elements

Item	Indicator	Mean	SD	Interpretation
4.1	Challenges and tasks are appropriately calibrated in difficulty, providing a meaningful balance	4.73	0.47	Outstanding

	between cognitive challenge and learner capability to sustain optimal engagement and flow (Csikszentmihalyi, 1990).			
4.2	The reward system (e.g., points, badges, certificates, stickers) is directly tied to specific learning achievements and provides clear, motivating, and equitable incentives for all learners (Werbach & Hunter, 2012).	4.82	0.40	Outstanding
4.3	The level or progression structure is clearly defined, with transparent advancement criteria that are coherently linked to cumulative mastery of learning objectives (Oliveira et al., 2025).	4.00	0.00	Very Satisfactory
4.4	Interactive tasks actively promote learner agency, decision-making, and meaningful participation rather than passive reception of information (Deterding et al., 2011).	4.45	0.52	Very Satisfactory
4.5	The gamification narrative or thematic framework (story, quest, scenario) is coherent, engaging, age-appropriate, and meaningfully integrated with the learning content and objectives.	4.09	0.30	Very Satisfactory
4.6	Game mechanics (rules, scoring, competition/collaboration elements) are clearly explained, consistently applied, and do not overshadow or trivialize the substantive learning goals.	4.00	0.00	Very Satisfactory
4.7	Feedback mechanisms within the gamified activities (e.g., immediate responses, progress tracking, leaderboards) are constructive, informative, and aligned with formative assessment principles.	4.18	0.40	Very Satisfactory
4.8	The gamification elements collectively foster intrinsic motivation, a positive learning mindset, and sustained engagement without inducing excessive competition, anxiety, or exclusion.	4.36	0.50	Very Satisfactory

Dimension Mean	4.33	0.47	Very Satisfactory

Note. n = 11. Scale: 4.50–5.00 Outstanding; 3.50–4.49 Very Satisfactory; 2.50–3.49 Satisfactory; 1.50–2.49 Fair; 1.00–1.49 Poor.

Table 8 shows that the dimension of gamification obtained a mean of 4.33 (SD = 0.47), which is interpreted as "Very Satisfactory". The validators were most impressed with the reward system implemented for completing specific learning achievements (Item 4.2, M = 4.82) and with the appropriate difficulty of the challenges included within the learning experience (Item 4.1, M = 4.73), both of which were rated as "Outstanding". These positive evaluations of the gamification of the learning experience help to validate the theoretical foundations of this study, namely Csikszentmihalyi's (1990) theory of flow experiences and Werbach and Hunter's (2012) theory of the rewarding nature of achievements. The dimension, however, only settled on "Very Satisfactory" because three of the indicators within the dimension were scored lower; the level of gamification (Item 4.3, M = 4.00), the game mechanisms within the learning experience (Item 4.6, M = 4.00), and the degree of coherency of the gamification narrative (Item 4.5, M = 4.09). Thus, while the reward and challenge systems within the learning experience were appreciated by the validators, the validators indicated that the progression system and storyline elements of the learning experience were those elements that should be strengthened. This suggestion of the need for improvement in these elements is supported by the research suggesting that learning experiences that include game elements that go beyond forming reward and challenge systems for participating in learning experiences are most effective (Deterding et al., 2011; Li, Ma, & Shi, 2023; Oliveira et al., 2025).

Summary of the Validity Assessment

Table 9

Summary of the Validity of the Gamified Instructional Material as Assessed by Expert Validators

Dimension	Mean	SD	Interpretation
I. Accuracy of Content and Alignment with the K to 12 Curriculum	4.65	0.48	Outstanding
II. Instructional Design and Pedagogical Appropriateness	4.27	0.47	Very Satisfactory
III. Clarity and Organization of Learning Activities	4.42	0.50	Very Satisfactory
IV. Quality of Gamification Elements	4.33	0.47	Very Satisfactory
Overall Validity	*4.41*	*0.50*	*Very Satisfactory*

Note. n = 11. The overall validity mean is the grand mean of all 30 indicators.

Note. A total score of 127–150 (85–100% of the 150-point maximum) corresponds to a Highly Valid rating per the rubric's Validity Index Interpretation Scale shown in Table 10.

Table 10

Validity Index Interpretation Scale of the Expert Validator Evaluation Rubric

Score Range	Percentage (%)	Validity Interpretation
127–150	85–100%	Highly Valid – The instructional material is ready for use with very minor or no revisions.
105–126	70–84%	Valid – The instructional material is acceptable for use with minor revisions recommended.
83–104	55–69%	Moderately Valid – The instructional material requires moderate revisions before use.
60–82	40–54%	Slightly Valid – The instructional material requires major revisions before use.
Below 60	Below 40%	Not Valid – The instructional material requires substantial reconstruction and re-evaluation.

Note. The boldfaced row indicates the validity category obtained by the Gamified Instructional Material in this study (132.27 of 150; 88.18%).

Table 9 presents the four dimensions of validity, while Table 10 presents the Validity Index that can be used to determine the interpretation of the total rubric score. The mean validity score of 4.41 (SD = 0.50) indicates that the instructional material is situated in the upper portion of the Very Satisfactory range on the rating scale. Using the Validity Index based upon the expert rubric, the validators provided an average score of 132.27 out of a possible 150 points, or 88.18% of the possible score, which indicates the material falls into the Highly Valid range (85-100%). Thus, the validators determined that the Gamified Instructional Material was ready to be used with minimal revisions made to the material. Furthermore, the dimension that relates to the accuracy of the content and curriculum alignment with learning objectives received the highest average rating of 4.65, indicating that this aspect of the Instructional Material was an area of strength for the material, and the only aspect of the rubric that received an outstanding rating. The instructional design and appropriateness of the teaching methods for the targeted learners received the lowest average rating of 4.27, indicating that this was the area in which the material had the most room for improvement.

Level of Acceptability of the Gamified Instructional Material as Evaluated by Science Teachers

The second specific problem that will be examined is the acceptability of the Gamified Instructional Material as evaluated by the eleven science teachers. The results of the evaluation of the instructional material will be presented in tables 11 through 15, which include the weighted means, standard deviations, and the interpretation of each of the four evaluation dimensions.

Curriculum Relevance and Alignment

Table 11

Acceptability of the Material in Terms of Curriculum Relevance and Alignment

Item	Indicator	Mean	SD	Interpretation
1	The gamified instructional material addresses the competencies outlined in the Grade 8 Science curriculum guide of the Department of Education.	5.00	0.00	Highly Acceptable
2	The learning objectives of the gamified instructional material are clearly aligned with the Most Essential Learning Competencies (MELCs) for Grade 8 Science.	5.00	0.00	Highly Acceptable
3	The subject matter, concepts, and scientific vocabulary used in the gamified instructional material are appropriate for Grade 8 learners.	4.91	0.30	Highly Acceptable
4	The content of the gamified instructional material reflects accurate and up-to-date scientific knowledge consistent with the prescribed curriculum.	4.73	0.47	Highly Acceptable
5	The games and activities in the gamified instructional material cover the required topics and competencies in a comprehensive manner.	5.00	0.00	Highly Acceptable
6	The difficulty level of the tasks and assessments is appropriate for the grade level and developmental stage of Grade 8 students.	4.27	0.47	Acceptable
	Dimension Mean	*4.82*	*0.39*	*Highly Acceptable*

Note. n = 11. Scale: 4.50–5.00 Highly Acceptable; 3.50–4.49 Acceptable; 2.50–3.49 Moderately Acceptable; 1.50–2.49 Less Acceptable; 1.00–1.49 Not Acceptable.

Table 11 indicates that the science teachers found the relevance and alignment of the curriculum to be highly acceptable, with a dimension mean of 4.82 (SD = .39), the highest of the four dimensions of acceptability. Three of the indicators had a mean of 5.00 from all teachers: the curriculum covered the Grade 8 Science Competencies (Item 1), the curriculum aligned with the Most Essential Learning Competencies (Item 2), and the curriculum comprehensively covered the topics to be taught (Item 5). The other indicators were generally highly acceptable, except for indicator 6 (appropriateness of difficulty level) which earned a mean of 4.27. Because the science teachers are the individuals that

implement the DepEd curriculum in the classrooms, their opinions of the acceptability of the curriculum is especially important to note (Adlaon, 2025). Thus, these findings support the existing literature regarding the importance of curriculum relevance as the most important criterion for the evaluation of new science classroom curricula (Pinuela, 2025).

Utility and Ease of Integration in the Classroom

Table 12

Acceptability of the Material in Terms of Utility and Ease of Integration in the Classroom

Item	Indicator	Mean	SD	Interpretation
7	The gamified instructional material can be readily incorporated into existing lesson plans and daily classroom routines.	4.27	0.47	Acceptable
8	The teacher's guide and instructional materials provided in the gamified instructional material are clear and easy to follow.	4.45	0.52	Acceptable
9	The gamified instructional material requires minimal preparation time and resources, making it practical for regular classroom use.	4.36	0.50	Acceptable
10	The materials and components of the gamified instructional material are suitable for the Philippine school setting.	4.73	0.47	Highly Acceptable
11	The gamified instructional material can be effectively used in both individual and cooperative learning configurations.	4.18	0.40	Acceptable
12	The time allotment prescribed for each game or activity is feasible within a standard class period.	4.09	0.30	Acceptable
	Dimension Mean	*4.35*	*0.48*	*Acceptable*

Note. n = 11. Scale: 4.50–5.00 Highly Acceptable; 3.50–4.49 Acceptable; 2.50–3.49 Moderately Acceptable; 1.50–2.49 Less Acceptable; 1.00–1.49 Not Acceptable.

As shown in Table 12, the dimensions of utility and ease of integration received one of the two lowest dimension means at 4.35 (SD = .48). However, it remains within the acceptable range. Teachers rated the suitability of the materials and components for use within the Philippine school setting as one of the highest ratings (Item 10, M = 4.73, Highly Acceptable). Items that received the lowest rates were feasibility of the time allotment for each of these activities within the standard class period (Item 12, M = 4.09),

the usability of these activities with both individual and cooperative configurations of students (Item 11, M = 4.18), and the incorporation of these activities into existing lesson plans for the targeted grade levels (Item 7, M = 4.27). Each of these findings are in alignment with Rogers' (2003) theories regarding the Diffusion of Innovations, specifically regarding the impact of complexity of a new innovation and the preparation needed to implement it. Furthermore, these findings are in alignment with Adlaon's (2025) findings of the limited resources available within Philippine classrooms as well as the preparation needed to implement any new science teaching strategies with those classroom teachers. However, teachers overall indicated a strong valuation of the ready-to-use components that were included within the teaching resources as well as the activities that could be completed within each lesson period (Campomanes, 2023).

Clarity and Organization of Learning Tasks and Activities

Table 13

Acceptability of the Material in Terms of Clarity and Organization of Learning Tasks and Activities

Item	Indicator	Mean	SD	Interpretation
13	The instructions for each game and learning activity are written in clear, simple, and understandable language.	4.73	0.47	Highly Acceptable
14	The sequence and progression of the learning tasks follow a logical and pedagogically sound order.	4.18	0.40	Acceptable
15	The visual layout, design elements, and printed materials of the gamified instructional material are well-organized and easy to read.	4.73	0.47	Highly Acceptable
16	The objectives, tasks, and expected outcomes for each activity are explicitly stated and measurable.	4.45	0.52	Acceptable
17	The assessment tools and rubrics included in the gamified instructional material are aligned with the learning objectives and are simple to administer.	4.00	0.00	Acceptable
18	The gamified instructional material clearly differentiates the roles and responsibilities of the teacher and the students during each activity.	4.00	0.45	Acceptable
	Dimension Mean	4.35	0.51	Acceptable

Note. n = 11. Scale: 4.50–5.00 Highly Acceptable; 3.50–4.49 Acceptable; 2.50–3.49 Moderately Acceptable; 1.50–2.49 Less Acceptable; 1.00–1.49 Not Acceptable.

Table 13 reveals that the dimension of clarity and organization has an average dimension mean of 4.35 (SD = 0.51), indicating that the dimension is considered to be Acceptable. The indicators that had the highest ratings were the clear and understandable activity instructions (Item 13, M = 4.73) and the clear organization of the visual layout of the activities (Item 15, M = 4.73). The two lowest-rated indicators were that the assessment of the activities was easy to perform (Item 17, M = 4.00) and that the roles of teachers and students within the activities were easily understood (Item 18, M = 4.00). These results are in alignment with the suggestions made by previous researchers that reducing the cognitive load placed upon teachers regarding the activities to be performed with the students can lead to the successful implementation of those activities (Sweller, 1988; Ouwehand et al., 2025). Furthermore, it is recognized from these research efforts that clarity in the instructions to be followed and roles to be performed is the highest-ranked criterion among teachers regarding the acceptability of the teaching materials (Chowdhury, 2022; Cruz, 2023). Thus, the instructions and visual layout for the activities were strengths of the teaching materials, while the provision of answer keys, rubrics for assessing the students' knowledge and skills, and the roles of teachers and students within those activities were the elements that would benefit from additional elaboration.

Potential to Enhance Student Motivation and Engagement

Table 14

Acceptability of the Material in Terms of Potential to Enhance Student Motivation and Engagement

Item	Indicator	Mean	SD	Interpretation
19	The gamified elements (e.g., point systems, badges, game boards, challenges) are likely to motivate students to actively participate in the lesson.	4.82	0.40	Highly Acceptable
20	The gamified instructional material provides a fun, interactive, and stimulating learning environment that sustains student interest throughout the lesson.	4.45	0.52	Acceptable
21	The activities promote active participation, critical thinking, and higher-order cognitive engagement among learners.	4.45	0.52	Acceptable
22	The competitive and collaborative game mechanics encourage students to work harder, review content, and strive for mastery.	4.18	0.40	Acceptable
23	The rewards and recognition systems embedded in the gamified instructional material are	4.55	0.52	Highly Acceptable

	appropriate and motivating for Grade 8 learners.			
24	The gamified instructional material is likely to reduce science anxiety and foster a positive attitude toward learning science among students.	4.36	0.50	Acceptable
	Dimension Mean	4.47	0.50	Acceptable

Note. n = 11. Scale: 4.50–5.00 Highly Acceptable; 3.50–4.49 Acceptable; 2.50–3.49 Moderately Acceptable; 1.50–2.49 Less Acceptable; 1.00–1.49 Not Acceptable.

Table 14 reveals that the motivation and engagement dimension recorded a mean of 4.47 (SD = 0.50), indicating that the level of motivation and engagement from the implementation of gamification elements was found to be acceptable. Teachers were the most confident that the gamified lesson would motivate students to participate (Item 19, M = 4.82), and that the system of providing rewards was appropriate for the target students of Grade 8 learners (Item 23, M = 4.55), both of which were rated as highly acceptable. However, teachers were less confident in the acceptability of the competitive and collaborative elements of the game (Item 22, M = 4.18), or the fact that the lesson would reduce science anxiety and increase positive attitudes towards the subject (Item 24, M = 4.36). While both of these acceptabilities fall within the acceptable range, they are indicative of the benefits of gamification to motivation and engagement in particular, relative to the less-confident teachers regarding the competitive and collaborative aspects of the game. Thus, while these results are in agreement with the findings of previous research regarding the motivational benefits of gamification elements (Li, Hew, & Du, 2024), and the underlying theories of motivation, such as Self-Determination Theory (Deci & Ryan, 2000), they also reveal the teachers' more reserved opinions regarding those competitive and collaborative aspects of the lesson.

Summary of the Acceptability Assessment

Table 15

Summary of the Acceptability of the Gamified Instructional Material as Evaluated by Science Teachers

Dimension	Mean	SD	Interpretation
1. Curriculum Relevance and Alignment	4.82	0.39	Highly Acceptable
2. Utility and Ease of Integration in the Classroom	4.35	0.48	Acceptable
3. Clarity and Organization of Learning Tasks and Activities	4.35	0.51	Acceptable
4. Potential to Enhance Student Motivation and Engagement	4.47	0.50	Acceptable
Overall Acceptability	**4.50**	**0.51**	**Acceptable**

Note. n = 11. The overall acceptability mean is the grand mean of all 24 indicators.

Note. The overall mean of 4.50 is rounded from an unrounded grand mean of 4.496, which falls 0.004 below the 4.50 Highly Acceptable cutoff; it is therefore conservatively interpreted as Acceptable, at the uppermost boundary of that band.

Table 15 presents the results of the teachers' acceptability ratings. The mean rating of 4.50 (SD = .51) for overall acceptability indicates that the instructional material is to be considered as "Acceptable" according to the rating scale; the unrounded mean of 4.496 is only four-thousandths of a point away from the cutoff for "Highly Acceptable" ratings. The dimension of the material that received the highest mean of 4.82 (indicating a level of "Highly Acceptable" as per the rating scale") was the dimension of the relevance of the material to the curriculum to be taught; the following dimensions all had mean ratings that were within a point of one another: the motivation of the students to learn the material earned a mean of 4.47, the utility of the material to the classroom (e.g., preparation time and feasibility of incorporation of the material into the classroom) earned a mean of 4.35, and the clarity and organization of the material earned the same mean of 4.35. Thus, the science teachers generally considered the Gamified Instructional Material to be relevant to the curriculum to be taught, engaging for the students, and likely to readily be able to be incorporated into the classroom; however, the teachers were the most reserved in their evaluations of the utility of the material to the classroom and the necessity to elaborate upon certain components of the instructional material.

Significant Difference Between the Assessments of Expert Validators and Science Teachers

The third specific problem that would be answered is whether or not there was a significant difference in the assessments of the expert validators and the science teachers regarding the validity and acceptability of the Gamified Instructional Material. Because both groups were comprised of small n-numbers (n=11 each) and due to the fact that the assumption of normality has not been established for these two groups of assessments, a Mann-Whitney U test will be utilized to determine any differences between these two groups with a significance level of $\alpha = 0.05$ (Pallant, 2020; Field, 2018). The null hypothesis for this test states that there is no significant difference between the two groups' assessments of the validity and acceptability of the Gamified Instructional Material. The results of this test will be presented in Table 16.

Table 16

Mann-Whitney U Test Comparing the Assessments of Expert Validators and Science Teachers

Comparison	Validators Mdn	Teachers Mdn	U	p-value	Decision
Content / Curriculum	4.71	4.83	44	.279	Not Significant
Design / Utility	4.38	4.33	54	.691	Not Significant
Clarity & Organization	4.43	4.33	57	.842	Not Significant

Gamification / Motivation	4.38	4.50	37	.125	Not Significant
Overall Assessment	**4.40**	**4.50**	**36**	**.112**	**Not Significant**

Note. n = 11 per group. Mdn = median of respondents' means ratings. U = min (U_1, U_2); p is the two-tailed asymptotic value with continuity and tie correction. Significant at p < .05 (two-tailed).

Table 16 shows that the comparison of the ratings of the expert validators with those of the science teachers resulted in a Mann-Whitney U test statistic of 36.0 and a p-value of .112, which is beyond the .05 level of statistical significance that is generally required to reject the null hypothesis. Thus, the null hypothesis that there was no difference between the two groups of raters in their assessments of the quality of the Gamified Instructional Material is not rejected; rather, the result is interpreted as one that indicates no statistically significant difference between expert validators and science teachers in their assessments of the quality of that Gamified Instructional Material. The same results were found in relation to each of the four dimensions of that quality; none of the p-values for the comparisons between expert validators and science teachers reached the .05 level of significance. The comparisons closest to a significant difference were for each of the overall assessment of the Gamified Instructional Material itself (U = 36.0, p = .112), and for the comparison between the ratings of the teachers versus the validators in relation to the dimension of theGamified Instructional Material that compared the use of gamification versus motivation as a means of encouraging students to perform certain tasks (U = 37.0, p = .125). Thus, in each case, the teachers tended to provide higher ratings of the quality of the Gamified Instructional Material than did the expert validators; however, these differences are not statistically significant.

Such a convergence of findings from the two groups of evaluators is methodologically meaningful (Stufflebeam & Shinkfield, 2007; Adlaon, 2025). Both groups indicated that they thought the dimension of the lesson that was most strongly represented as strengths of the material was the content and curriculum of the lesson; validators emphasized the accuracy of the content of the lesson (M = 4.65) and teachers indicated their belief in the relevance of the lesson's curriculum (M = 4.82). Additionally, both groups expressed reservations about the design and utility of the lesson. While some studies have found differences in the judgments of experts and teachers of the same lesson (Li, Ma, & Shi, 2023), other studies have indicated that the two groups agree with one another regarding the accuracy and clarity of the content within the lesson (Chowdhury, 2022). These findings are similar to those other studies, suggesting a consensus among the teachers and experts regarding the quality of the lesson. Consequently, the lesson will be finalized without attempting to reconcile the differences in opinions among these two groups of evaluators.

Improvements and Recommendations Suggested by the Respondents

The fourth specific problem that was encountered was to gather the qualitative improvements and recommendations that were provided to the validators and science teachers through the open-ended questions that were posed within both forms of the

instrument. These answers were transcribed and analyzed through content analysis to determine any themes regarding the features of the game-based design of the lesson (such as the content of the lesson, the instructional design elements, the clarity of the lesson organization, or the elements of gamification). The results of these analyses will be presented within Table 17 and discussed in the paragraphs that follow.

Table 17

Thematic Summary of the Respondents' Recommendations for Enhancement

Area	Recommendation	Source
Content	Add more worked examples and real-life Filipino contexts for periodic trends and electron configuration to deepen abstract concepts.	Validators; Teachers
Instructional Design	Strengthen differentiation by adding enrichment and remediation tasks for fast and struggling learners.	Validators
Instructional Design	Refine and shorten time estimates so each activity fits within a 60-minute class period.	Validators; Teachers
Clarity & Organization	State learning objectives in more explicitly measurable terms and provide complete answer keys and scoring rubrics.	Validators; Teachers
Clarity & Organization	Include a Filipino-language glossary or bilingual instructions for learners with limited English proficiency.	Teachers
Gamification Elements	Clarify the level or progression structure and strengthen the thematic narrative so that game mechanics reinforce rather than overshadow the learning goals across multiple sessions.	Validators
Practical Use	Provide a ready-to-print, low-cost, reusable version with durable materials suited to large classes.	Teachers

Note. Recommendations were derived from thematic content analysis of the open-ended responses of both groups.

Identified Strengths

Both groups commended the way that the current material was aligned with the competencies of Grade 8 science students. This emerged as the single strongest point of both groups in their quantitative evaluations of the project, in addition to the accurate and well-referenced scientific content that was presented within the material. Both groups mentioned the enjoyable and printable components of the material, the use of familiar and locally-specific Filipino contexts and names within the material, and the way that the game components provided both a reward and a challenge to the players. Additionally, the teachers also noted the fact that the components of the lesson were readily usable, reusable, and low-cost to utilize within the classroom. These factors are

often recognized in the literature as the factors that impact the acceptability of a project created within the local area (Campomanes, 2023; Li, Ma, & Shi, 2023).

Recommendations for Enhancement

The recommendations received clustered around five themes. The first related to the content itself, and recommended that topics related to periodic trends and electron configuration (the two most difficult aspects of the Periodic Table according to existing literature) should have more examples and real-world applications introduced within them (Chowdhury, 2022; Sari et al., 2023). The second related to the differentiation within the course, recommending the inclusion of enrichment and remedial activities for the various topics and adjusting the time estimates for each module to more realistic estimates, both of which received low validity ratings during the review. The third related to the clarity of the course and the suggested changes to include measurable learning objectives for each module, as well as answer keys to each quiz, both of which were requested by teachers in the Philippines in their review of similar science educational materials (Pinuela, 2025). The fourth theme was the suggestion of a glossary in the Filipino language, which would allow for students with limited proficiency in English to better understand the course. Finally, regarding the gamification of the course, validators recommended adjusting the narrative and progression structures of the game to ensure that the game continued to support the learning goals throughout the course, which is also reflected in the low ratings for those two components (Werbach & Hunter, 2012; Oliveira et al., 2025). Each of these recommendations informed the revisions to the course material, reflecting the evaluation and revision stages of the ADDIE model (Branch, 2009; Dick et al., 2015).

Summary of Findings

The salient findings of the study are summarized as follows:

1. On the level of validity, the expert validators assigned the Gamified Instructional Material a mean of 4.41 out of 5 (SD = 0.50) or 88.18% of the maximum possible score, indicating that the instructional material is highly valid. Accuracy of the content and its alignment with the curriculum received the highest rating of 4.65 out of 5, indicating that the dimension is outstanding. Following behind were clarity and organization of learning activities (4.42), quality of gamification elements (4.33), and both of these received a rating of very satisfactory. Finally, the last dimension of validity: instructional design and appropriateness of the teaching methods received the lowest rating of 4.27 out of 5, also indicating that it is very satisfactory.
2. Furthermore, the science teachers also provided ratings of the level of acceptability of the
3. materials. On the five-point scale that was provided for such ratings, the science teachers provided an overall weighted mean of 4.50 (with a standard deviation of 0.51), which is interpreted as an rating of Acceptable. The unrounded mean, however, was 4.496, which is the upper boundary of the Acceptable band. The individual dimensions of acceptability had means of 4.82 for the dimension of relevance to the curriculum (the only dimension to receive a rating of Highly

Acceptable), 4.47 for the potential of the texts to enhance student motivation and engagement, 4.35 for the perceived utility and ease of incorporating the texts into the classroom, and 4.35 for the clarity and organization of the texts - the two lowest ratings for the individual dimensions of acceptability. Each of these dimensions of acceptability fell within the Acceptable range on the five-point scale.

4. The results of the Mann-Whitney U test on the significant difference between the expert validators' and science teachers' assessments revealed that the U value is 36.0 with a p value of .112, which is beyond the level of .05 significance. Thus, no significant difference exists between the expert validators and the science teachers in relation to the evaluations of the resource or in relation to each of the four dimensions of those evaluations ($p = .112$ to .842).
5. Both groups of individuals recommended the same set of improvements to the resource. Specifically, each group recommended that the text include additional content to relate to the abstract concepts within the resource, such as concepts of periodic trends and electron configuration; provide more realistic time estimates for each portion of the resource; state the learning objectives for the resource in more measurable terms; provide answer keys for each of the assessments included in the resource; provide a glossary of terms in the Filipino language (or vice versa) to help non-native speakers of the language; and provide additional clarification regarding the level of the gamification element of the resource.

Conclusions

Based on the foregoing findings, the following conclusions are drawn:

1. The characteristics of the gamified instructional material indicate that the product is highly valid. The scientific content of the product is accurate and meets the requirements of the K to 12 Grade 8 Science curriculum - its only outstanding strength. Furthermore, while the gamification elements of the product are effective, its progression and narrative elements are the aspects that would benefit the most from strengthening. Overall, then, the product is technically ready for use with only minor revisions.
2. The product is considered to be acceptable to science teachers. The product has the highest rating within the Acceptable range for the evaluation criteria. While the alignment of the product with the curriculum is its strongest element, the requirements of teachers to prepare and deliver the activities, and the completeness of the assessments included within the product are its elements that would benefit the most from streamlining.
3. The absence of a significant difference between the ratings of the expert validators and science teachers indicates that the two groups of validators have a general consensus regarding the quality of the material. Both groups of validators found similarities between the expert and teacher groups in relation to the areas of strength of the material and the area for which it needs the most refinement, indicating the credibility of the survey overall.
4. The agreement between the quantitative and qualitative analyses of the Gamified Instructional Material indicates both that the material is valid, acceptable, and addresses the gaps in learning of Grade 8 chemistry students, while also recommending specific changes to the material to improve its effectiveness.

Recommendations

In light of the findings and conclusions of the study, the following recommendations are offered:

1. Make revisions to the instructional material to incorporate the suggestions of the respondents, especially regarding differentiated instruction, realistic time allocations, objectives, answer keys, and further scaffolding of topics on periodic trends and electron configuration.
2. Refine the gamification of the lesson to include further clarification on the level of the game and to improve the thematic elements of the game with the learning goals of the lesson, as well as to create a glossary of the terms in the Filipino language to aid students who do not have proficiency in the English language.
3. Implement the lesson by science teachers in the science classroom to teach the periodic table of elements. Teachers will be provided with a brief orientation on how to implement the lesson.
4. Based on the evaluation of the science game resource and the evaluation framework developed for this study, the Department of Education and curriculum developers may utilize these findings as a point of reference in the creation of other science games that are both locally-produced and aligned with the existing science curriculum for Region X and potentially beyond.
5. Furthermore, future researchers may utilize this game resource in the creation of a study that would implement the resource to Grade 8 classrooms to evaluate its effects on student learning, which was outside of the scope of this current study.
6. Finally, future studies could utilize this game resource in a variety of ways, such as including more evaluators of the game, including the learners as respondents in the evaluation, or evaluating the game over a variety of academic cycles to determine any improvements to the resource over time.

References

Abendan, C. F. (2023). Breaking barriers: An in-depth exploration of interventions for enhancing science performance in Filipino students. *Excellencia: International Multi-disciplinary Journal of Education, 1*(5), 268–278.

Adlaon, M. S. (2025). A systematic review of innovative teaching strategies in science: Exploring hands-on learning, technology integration, and student-centered approaches. *Acta Pedagogia Asiana, 4*(2), 101–114. https://doi.org/10.53623/apga.v4i2.645

Almanasreh, E., Moles, R., & Chen, T. F. (2019). Evaluation of methods used for estimating content validity. *Research in Social and Administrative Pharmacy, 15*(2), 214–221. https://doi.org/10.1016/j.sapharm.2018.03.066

Almonia, A. L. (2024). Effectiveness of collaborative and individualized learning on the learners' achievement in science among pupils. *Integrated Science Education Journal, 5*(2), 115–124. https://doi.org/10.37251/isej.v5i2.482

Bai, S., Hew, K. F., & Huang, B. (2020). Does gamification improve student learning outcome? Evidence from a meta-analysis and synthesis of qualitative data in

educational contexts. *Educational Research Review, 30*, Article 100322. https://doi.org/10.1016/j.edurev.2020.100322

Bello, J., Concon, L., Polache, M. C. C., Ayaton, M. J., Manlicayan, R., Campomanes, J., & Saro, J. (2023). Contextualized and localized science teaching and learning materials and its characteristics to improve students' learning performance. *Psychology and Education: A Multidisciplinary Journal, 7*(1), 77–84. https://doi.org/10.5281/zenodo.7607686

Branch, R. M. (2009). *Instructional design: The ADDIE approach*. Springer. https://doi.org/10.1007/978-0-387-09506-6

Chowdhury, P. (2022). Learners' misconceptions in periodic table: An analysis of cognitive skills development. *Universal Journal of Educational Research, 10*(1), 57–66. https://doi.org/10.13189/ujer.2022.100106

Conel, E. B. (2022). Effects of manipulative game-based learning on students' achievement in chemistry. *Alipato: A Journal of Basic Education, 12*. [Verify year against the issue: some indexes date Volume 12 as 2021]

Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approach* (6th ed.). SAGE Publications.

Cruz, Z. M. (2023). Game-based activities as teaching strategy in chemistry for Grade 9 students. *Psychology and Education: A Multidisciplinary Journal, 11*(6), 540–548. https://doi.org/10.5281/zenodo.8203010

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper & Row.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01

Department of Education. (2012). *Policy guidelines on the implementation of Grades 1 to 10 of the K to 12 Basic Education Curriculum (BEC) effective School Year 2012–2013* (DepEd Order No. 31, s. 2012). Republic of the Philippines.

Department of Education. (2016). *K to 12 curriculum guide: Science (Grade 3 to Grade 10)*. Republic of the Philippines.

Department of Education. (2020). *K to 12 most essential learning competencies with corresponding CG codes*. Republic of the Philippines.

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: Defining "gamification." In *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments* (pp. 9–15). Association for Computing Machinery. https://doi.org/10.1145/2181037.2181040

Diaz, A. F., & Estoque-Loñez, H. (2024). A meta-analysis on the effectiveness of gamification on student learning achievement. *International Journal of Education in Mathematics, Science, and Technology, 12*(5), 1236–1253. https://doi.org/10.46328/ijemst.4185

Dichev, C., & Dicheva, D. (2017). Gamifying education: What is known, what is believed and what remains uncertain: A critical review. *International Journal of Educational Technology in Higher Education, 14*, Article 9. https://doi.org/10.1186/s41239-017-0042-5

Dick, W., Carey, L., & Carey, J. O. (2015). *The systematic design of instruction* (8th ed.). Pearson.

Evans, [initials]. et al. (2024). [Full reference to be confirmed by the author — cited in Chapter 4 on instructional design, prior knowledge, and learner variation.]

Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). SAGE Publications.

Gkintoni, E., Antonopoulou, H., Sortwell, A., & Halkiopoulos, C. (2025). Challenging cognitive load theory: The role of educational neuroscience and artificial intelligence in redefining learning efficacy. *Brain Sciences, 15*(2), Article 203. https://doi.org/10.3390/brainsci15020203

Hui, H. B., & Mahmud, M. S. (2023). Influence of game-based learning in mathematics education on the students' cognitive and affective domain: A systematic review. *Frontiers in Psychology, 14*, Article 1105806. https://doi.org/10.3389/fpsyg.2023.1105806

Kaimara, P., Fokides, E., Oikonomou, A., & Deliyannis, I. (2021). Potential barriers to the implementation of digital game-based learning in the classroom: Pre-service teachers' views. *Technology, Knowledge and Learning, 26*(4), 825–844. https://doi.org/10.1007/s10758-021-09512-7

Krath, J., Schürmann, L., & von Korflesch, H. F. O. (2021). Revealing the theoretical basis of gamification: A systematic review and analysis of theory in research on gamification, serious games and game-based learning. *Computers in Human Behavior, 125*, Article 106963. https://doi.org/10.1016/j.chb.2021.106963

Kurnaz, M. F., & Koçtürk, N. (2025). A meta-analysis of gamification's impact on student motivation in K-12 education. *Psychology in the Schools, 62*(12), 4997–5009. https://doi.org/10.1002/pits.70056

Lampropoulos, G., & Sidiropoulos, A. (2024). Impact of gamification on students' learning outcomes and academic performance: A longitudinal study comparing online, traditional, and gamified learning. *Education Sciences, 14*(4), Article 367. https://doi.org/10.3390/educsci14040367

Li, L., Hew, K. F., & Du, J. (2024). Gamification enhances student intrinsic motivation, perceptions of autonomy and relatedness, but minimal impact on competency: A meta-analysis and systematic review. *Educational Technology Research and Development, 72*(2), 765–796. https://doi.org/10.1007/s11423-023-10337-7

Li, M., Ma, S., & Shi, Y. (2023). Examining the effectiveness of gamification as a tool promoting teaching and learning in educational settings: A meta-analysis. *Frontiers in Psychology, 14*, Article 1253549. https://doi.org/10.3389/fpsyg.2023.1253549

Makalintal, J. D., & Malaluan, N. E. (2019). Game-based learning activities in teaching Grade 7 science. *International Journal of Research – GRANTHAALAYAH, 7*(5), 256–277. https://doi.org/10.29121/granthaalayah.v7.i5.2019.845

Manzano-León, A., Camacho-Lazarraga, P., Guerrero, M. A., Guerrero-Puerta, L., Aguilar-Parra, J. M., Trigueros, R., & Alias, A. (2021). Between level up and game over: A systematic literature review of gamification in education. *Sustainability, 13*(4), Article 2247. https://doi.org/10.3390/su13042247

Mao, W., Cui, Y., Chiu, M. M., & Lei, H. (2022). Effects of game-based learning on students' critical thinking: A meta-analysis. *Journal of Educational Computing Research, 59*(8), 1682–1708. https://doi.org/10.1177/07356331211007098

Mayer, R. E. (2009). *Multimedia learning* (2nd ed.). Cambridge University Press.

Mayer, R. E. (2019). Computer games in education. *Annual Review of Psychology, 70*, 531–549. https://doi.org/10.1146/annurev-psych-010418-102744

Mayer, R. E. (2021). *Multimedia learning* (3rd ed.). Cambridge University Press. https://doi.org/10.1017/9781316941355

Megreya, A. M., Szűcs, D., & Moustafa, A. A. (2021). The Abbreviated Science Anxiety Scale: Psychometric properties, gender differences and associations with test anxiety, general anxiety and science achievement. *PLOS ONE, 16*(2), Article e0245200. https://doi.org/10.1371/journal.pone.0245200

Mendez, M. J. R., Nacional, A. S., Quilos, D. J. I., & Salva, L. H. M. A. (2023). Home environmental factors and science anxiety affecting academic performance of pre-service science teachers. *SEAQIS Journal of Science Education, 3*(1).

Oliveira, W. et al. (2025). [Full reference to be confirmed by the author — cited on gamification progression structures; closest published match: The effects of gamification on students' flow experience, *Journal of Computer Assisted Learning*.]

Orbon, C. R., & Sapin, S. B. (2022). Effectiveness of game-based learning instructional materials in enhancing the mathematics performance of Grade 8 learners. *The Asian Journal of Education and Human Development, 3*(1), 1481–1500.

Organisation for Economic Co-operation and Development. (2023). *PISA 2022 results (Volume I): The state of learning and equity in education*. OECD Publishing. https://doi.org/10.1787/53f23881-en

Ouwehand, K., Lespiau, F., Tricot, A., & Paas, F. (2025). Cognitive load theory: Emerging trends and innovations. *Education Sciences, 15*(4), Article 458. https://doi.org/10.3390/educsci15040458

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). Routledge.

Pinuela, M. F. G. (2025). Design and development of instructional materials to enrich K to 12 STEM Biology II curriculum guide: A case of the province of Iloilo, Philippines. *Cogent Education, 12*(1), Article 2495530. https://doi.org/10.1080/2331186X.2025.2495530

Plass, J. L., Homer, B. D., & Kinzer, C. K. (2015). Foundations of game-based learning. *Educational Psychologist, 50*(4), 258–283. https://doi.org/10.1080/00461520.2015.1122533

Ratinho, E., & Martins, C. (2023). The role of gamified learning strategies in student's motivation in high school and higher education: A systematic review. *Heliyon, 9*(8), Article e19033. https://doi.org/10.1016/j.heliyon.2023.e19033

Richey, R. C., & Klein, J. D. (2007). *Design and development research: Methods, strategies, and issues*. Lawrence Erlbaum Associates.

Richey, R. C., & Klein, J. D. (2014). Design and development research. In J. M. Spector, M. D. Merrill, J. Elen, & M. J. Bishop (Eds.), *Handbook of research on educational communications and technology* (4th ed., pp. 141–150). Springer. https://doi.org/10.1007/978-1-4614-3185-5_12

Rogayan, D. V., Jr., & Dollete, L. F. (2019). Development and validation of physical science workbook for senior high school. *Science Education International, 30*(4), 284–290. https://doi.org/10.33828/sei.v30.i4.5

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology, 61*, Article 101860. https://doi.org/10.1016/j.cedpsych.2020.101860

Sailer, M., & Homner, L. (2020). The gamification of learning: A meta-analysis. *Educational Psychology Review, 32*(1), 77–112. https://doi.org/10.1007/s10648-019-09498-w

Sari, [initials]. et al. (2023). [Full reference to be confirmed by the author — cited in Chapter 4 on task instructions and chemistry misconceptions.]

Second Congressional Commission on Education. (2024). *Miseducation: The failed system of Philippine education (EDCOM 2 Year One Report)*. Congress of the Philippines.

Sotos-Martínez, V. J., Tortosa-Martínez, J., Baena-Morales, S., & Ferriz-Valero, A. (2023). Boosting student's motivation through gamification in physical education. *Behavioral Sciences, 13*(2), Article 165. https://doi.org/10.3390/bs13020165

Stufflebeam, D. L., & Shinkfield, A. J. (2007). *Evaluation theory, models, and applications*. Jossey-Bass.

Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science, 12*(2), 257–285. https://doi.org/10.1207/s15516709cog1202_4

Sweller, J. (2022). The role of evolutionary psychology in our understanding of human cognition: Consequences for cognitive load theory and instructional procedures. *Educational Psychology Review, 34*(4), 2229–2241. https://doi.org/10.1007/s10648-021-09647-0

Sweller, J. (2023). The development of cognitive load theory: Replication crises and incorporation of other theories can lead to theory expansion. *Educational Psychology Review, 35*(4), Article 95. https://doi.org/10.1007/s10648-023-09817-2

Sweller, J., van Merriënboer, J. J. G., & Paas, F. (2019). Cognitive architecture and instructional design: 20 years later. *Educational Psychology Review, 31*(2), 261–292. https://doi.org/10.1007/s10648-019-09465-5

Taber, K. S. (2019). Alternative conceptions and the learning of chemistry. *Israel Journal of Chemistry, 59*(6–7), 450–469. https://doi.org/10.1002/ijch.201800046

Werbach, K., & Hunter, D. (2012). *For the win: How game thinking can revolutionize your business*. Wharton Digital Press.

Yusoff, M. S. B. (2019). ABC of content validation and content validity index calculation. *Education in Medicine Journal, 11*(2), 49–54. https://doi.org/10.21315/eimj2019.11.2.6

Zeng, J., Sun, D., Looi, C.-K., & Fan, A. C. W. (2024). Exploring the impact of gamification on students' academic performance: A comprehensive meta-analysis of studies from the year 2008 to 2023. *British Journal of Educational Technology, 55*(6), 2478–2502. https://doi.org/10.1111/bjet.13471

VOICES IN GOVERNANCE: EXPLORING THE REALITIES OF SCHOOL GOVERNANCE COUNCIL IMPLEMENTATION TOWARD A PROPOSED SUSTAINABILITY FRAMEWORK

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Abstract

This study, titled "Voices in Governance: Exploring the Realities of School Governance Council Implementation Toward a Proposed Sustainability Framework," explored the lived experiences, operational narratives, perceived roles, structural challenges, and sustainability practices of stakeholders involved in the implementation of School Governance Councils (SGCs) in selected public and secondary schools under the Schools Division Office of Bulacan. Anchored on the principles of participatory governance, subsidiarity, and school-based management, the study examined how SGC stakeholders experience shared governance within the context of Philippine basic education reforms, particularly DepEd Order No. 26, s. 2022. The study employed a qualitative narrative research design. Twenty-seven purposively selected participants composed of school heads, teacher representatives, parent leaders, learner representatives, alumni, and community stakeholders participated in semi-structured interviews. Data were analyzed using narrative thematic analysis supported by document review, triangulation, and member checking. The study generated major themes concerning stakeholder roles, governance practices, meeting protocols, resource mobilization, fiscal transparency, stakeholder engagement, operational barriers, and sustainability mechanisms. Findings revealed that SGC implementation in SDO Bulacan operates as a form of assisted democracy, where internal school actors—particularly school heads and teachers—remain the dominant holders of policy knowledge, fiscal command, and institutional memory, while external stakeholders contribute primarily through resource mobilization, community linkage, feedback, and support. The study further identified persistent challenges such as socio-economic time poverty, passive stakeholder compliance, technical knowledge gaps, quorum paralysis, limited fiscal autonomy, political interference, leadership turnover, and volunteer fatigue. From these findings, the study developed the IRE-UPRA Sustainability Framework, a proposed model designed to strengthen SGC continuity, stakeholder participation, fiscal transparency, institutional memory, and shared accountability. The framework emphasizes asynchronous micro-tasking, cloud-based documentation, joint fiscal prioritization, simplified monitoring tools, and cross-sector governance alliances. The study concludes that sustainable SGC implementation requires moving beyond compliance-based participation toward a more inclusive, accessible, transparent, and structurally resilient model of school governance. It recommends the institutionalization of modular engagement protocols, continuous capacity-

building, standardized turnover systems, participatory fiscal oversight, and multi-sector partnerships to ensure that SGCs function as enduring mechanisms for democratic, learner-centered, and community-owned school governance.

Keywords: School Governance Council, participatory governance, school-based management, sustainability framework, stakeholder engagement, educational management

Introduction

The global shift toward decentralized educational management has redefined the school as a collaborative ecosystem rather than an isolated bureaucratic unit. In the Philippine context, this transformation is encapsulated in School-Based Management (SBM), a reform strategy that shifts decision-making authority from central offices to the local school level. At the heart of this decentralization is the School Governance Council (SGC), a participatory body designed to harmonize the efforts of school heads, teachers, parents, learners, and community stakeholders. While the policy architecture for SGCs is robust, established through various Department of Education (DepEd) mandates and national laws, the transition from structural existence to functional sustainability remains a complex challenge. This study, titled "Voices in Governance: Exploring the Realities of School Governance Council Implementation toward a Proposed Sustainability Framework," seeks to examine the discrepancy between policy intent and the lived realities of those tasked with its execution.

The institutionalization of shared governance in the Philippines is anchored in Republic Act No. 9155, also known as the Governance of Basic Education Act of 2001. This landmark legislation fundamentally altered the educational landscape by institutionalizing the principle of shared accountability. It empowered school heads to lead with autonomy while mandating the involvement of the community in the school's strategic direction. Under this act, the school is recognized as the "heart of the formal education system," where the most critical decisions regarding learner welfare and school improvement should occur. To operationalize the mandates of RA 9155, the Department of Education introduced the SBM framework, which views the school as a self-governing entity capable of localized problem-solving. Central to this framework is the SGC. The most recent and comprehensive directive, DepEd Order No. 26, s. 2022, titled "Implementing Guidelines on the Establishment of School Governance Councils (SGCs)," clarifies that the SGC is not merely an advisory group but a functional partner in school operations. The policy identifies the SGC as a primary vehicle for transparency and accountability, specifically in the preparation and monitoring of the School Improvement Plan (SIP).

Furthermore, the SGC intersects Republic Act No. 8525, the Adopt-a-School Act of 1998. This law encourages private sector participation to bridge resource gaps in public education. According to DepEd Order No. 40, s. 2015, the SGC plays a

critical role in the Adopt-a-School Program (ASP) by identifying school priorities and ensuring that external resources, whether infrastructure, learning materials, or feeding programs—are aligned with the actual needs of the learners. The synergy between ASP and SGC creates a governance model where resources are not just received but are strategically managed and audited by a representative body of the community.

The conceptual framework of the SGC is rooted in the theory of participatory governance, which posits that involving stakeholders in decision-making leads to more democratic, efficient, and responsive institutions. In an educational setting, this means that when parents, local government units (LGUs), and community members have a seat at the table, the school's policies become more reflective of the socio-economic realities of its students. Literature suggests that SGCs serve as a bridge between the school and its external environment. According to De Lara and Pañares (2023), there is a significant positive correlation between the perceived effectiveness of SGCs and the overall level of SBM implementation. When SGCs are functional, they foster a "sense of ownership" among stakeholders, leading to increased resource mobilization and improved school climate. By decentralizing power, the SGC model assumes that those closest to the learners are best positioned to identify barriers to learning and propose contextualized solutions. This aligns with the principle of "subsidiarity," where matters are handled by the smallest, lowest, or least centralized competent authority.

Despite the sophisticated legal framework and the theoretical promise of SGCs, empirical evidence points to a "decoupling" effect—where the formal structure of the council exists to satisfy Department of Education requirements, but the actual practice of governance remains traditional or top-down. Research into the implementation of SGCs in various Philippine divisions reveals a recurring set of challenges that threaten the sustainability of these councils.

The critical gap lies in the definition and realization of "sustainability." In this context, sustainability is not merely the survival of the council over a fiscal year or the periodic replacement of its officers. True sustainability refers to the institutionalization of a collaborative culture that persists despite changes in school leadership, the continuity of strategic projects across elective terms, and the enduring impact on learner outcomes. Without a framework for sustainability, SGCs remain vulnerable to "tokenism," where participation is seasonal and projects vanish once a supportive principal or community leader is reassigned.

This need for sustainable governance is further amplified by the post-pandemic educational landscape. As the Philippines navigates the "Matatag" Agenda, the role of the SGC has shifted from a peripheral support group to a frontline actor in learning recovery. The pandemic exposed the fragility of schools that lacked strong community ties, while highlighting how decentralized governance could mobilize local resources for distance learning and safe school reopening. In the current post-crisis era, the SGC is tasked with managing

heightened learner needs and broader resource gaps. Consequently, the sustainability of the SGC is no longer just a compliance issue; it is a vital prerequisite for the resilience of the basic education system in a volatile environment.

First, the issue of capacity and role clarity is paramount. Many SGC members, particularly those from the parent and community sectors, often lack the technical expertise required for high-level governance tasks such as financial auditing or strategic planning. Studies indicate that without continuous capacity-building and training, these members often defer entirely to the School Head, rendering the council a "rubber stamp" for administrative decisions rather than a deliberative body. This power imbalance undermines the very essence of "shared" governance.

Second, resource constraints and administrative burdens weigh heavily on SGC operations. While SGCs are expected to assist in resource generation, the lack of an independent budget for the council's own operations—such as organizing meetings, conducting community consultations, or monitoring projects—limits their movement. In many cases, the SGC's activities are treated as secondary to the primary instructional duties of the teachers and the administrative duties of the principal, leading to "meeting fatigue" and low attendance.

Third, the sustainability of stakeholder engagement is a persistent concern. A study conducted in Camarines Sur highlighted that while SGCs initially show high levels of enthusiasm, participation often wanes over time due to a lack of visible outcomes or perceived influence. When stakeholders feel that their "voices" are heard but not acted upon, they become disengaged. This is particularly problematic in secondary schools where student representatives may feel intimidated by adult members, or in rural areas where the opportunity cost of attending meetings is high for parents.

Methods

This chapter presented the methodology employed in the study entitled “Voices in Governance: Exploring the Realities of School Governance Council Implementation toward a Proposed Sustainability Framework.” It described the research paradigm, research design, study locale, participants, sampling technique, research instruments, data gathering procedures, data analysis process, ethical considerations, and strategies employed to ensure the trustworthiness of the study.

The purpose of this chapter was to provide a comprehensive explanation of the procedures and methods utilized in investigating the lived experiences, perspectives, and narratives of stakeholders involved in the implementation of School Governance Councils (SGCs). Through a systematic qualitative inquiry, the study sought to generate meaningful insights into governance practices,

challenges, and sustainability mechanisms that may contribute to the development of a proposed sustainability framework for effective school governance.

Research Design

This study employed a qualitative research approach utilizing a narrative research design. Qualitative research was appropriate when the objective is to gain an in-depth understanding of human experiences, perceptions, and social realities within their natural contexts. Specifically, narrative research focuses on the stories individuals tell about their experiences and the meanings they attribute to those experiences. Through narratives, researchers can gain valuable insights into how people interpret events, construct realities, and make sense of their involvement in particular social phenomena.

The narrative research design was deemed most appropriate for this study because its primary purpose is to explore and document the authentic voices, lived experiences, and personal accounts of stakeholders involved in the implementation of School Governance Councils (SGCs). By examining participants' narratives, the study seeks to understand how governance policies, particularly DepEd Order No. 26, s. 2022, are interpreted, experienced, and implemented within actual school settings.

Narrative inquiry enables participants to recount significant events, challenges, successes, and lessons learned throughout their involvement in school governance. These personal stories provide rich and contextualized accounts of governance practices, stakeholder participation, decision-making processes, accountability mechanisms, and sustainability efforts. Such narratives offer a deeper understanding of the realities surrounding SGC implementation that may not be captured through quantitative measures alone.

While narrative accounts are inherently subjective, they constitute valuable sources of empirical data when collected and analyzed systematically. To ensure the rigor and credibility of the findings, participant narratives were audio-recorded, transcribed verbatim, coded, and subjected to thematic analysis. Furthermore, the study employed data triangulation through the review of governance-related documents, including meeting minutes, attendance records, School Improvement Plan (SIP) reports, council resolutions, and other relevant records. Member checking was likewise conducted to validate participants' responses and ensure the accuracy of interpretations.

Through these procedures, individual narratives were transformed into credible and evidence-based findings that reflect the realities of School Governance Council implementation. Ultimately, the insights derived from the participants' experiences served as the foundation for developing a proposed sustainability framework aimed at strengthening participatory governance, stakeholder engagement, and long-term effectiveness of School Governance Councils.

Research Locale

This study was conducted in selected public schools within the Schools Division of Bulacan where School Governance Councils (SGCs) have been established and are actively functioning in accordance with existing Department of Education policies and guidelines. The Schools Division of Bulacan was selected as the research locale due to its active implementation of school-based governance initiatives and the presence of diverse school contexts that provide rich opportunities for examining the realities of School Governance Council implementation.

The selected schools represented varying governance contexts, including differences in school size, stakeholder participation, leadership practices, and levels of community engagement. Such diversity enabled the researcher to obtain a broader and more comprehensive understanding of how School Governance Councils operate across different educational settings.

The choice of the research locale was deemed appropriate because it allowed the researcher to explore governance practices and stakeholder experiences within authentic school environments where governance policies are implemented. Furthermore, the locale provided access to key stakeholders who possess firsthand knowledge and experiences regarding the planning, implementation, monitoring, and sustainability of School Governance Council initiatives.

In examining the selected schools, the study considered contextual factors that may influence the effectiveness and sustainability of School Governance Councils, including stakeholder participation, leadership and management practices, institutional support mechanisms, community partnerships, and organizational culture. These contextual elements provided valuable insights into the factors that facilitate or hinder the successful implementation of school governance initiatives and informed the development of the proposed sustainability framework.

Participants of the Study

The participants of this study consisted of key stakeholders who are directly involved in the implementation, management, and decision-making processes of the School Governance Council (SGC). These individuals were selected because of their firsthand experiences, active participation, and knowledge of governance practices within their respective schools.

The participants included the following:

School Heads/Principals (SGC Chairpersons), who provide leadership and oversee the implementation of governance initiatives and school improvement programs;

Teacher Representatives, who actively participate in governance processes and contribute to policy implementation, planning, and decision-making;

Parent Representatives or Parent-Teacher Association (PTA) Officers, who represent the interests and concerns of parents and support collaborative school governance;

Learner Representatives, particularly Supreme Secondary Learner Government (SSLG) officers, where applicable, who provide the learners' perspectives on school governance and stakeholder participation; and

Community Stakeholders, including Barangay Officials, Local Government Unit (LGU) representatives, non-government organization (NGO) partners, and private sector collaborators who contribute resources, expertise, and community support to school programs and governance initiatives.

These participants were purposively selected because they possess direct experiences and valuable insights regarding governance processes, stakeholder participation, policy implementation, decision-making practices, accountability mechanisms, and sustainability efforts within the School Governance Council. Their diverse perspectives provided a comprehensive understanding of the realities, challenges, and best practices associated with SGC implementation.

Through the narratives of these stakeholders, the study was able to capture multiple viewpoints on how School Governance Councils function in practice, how governance policies are translated into action, and what factors contribute to the effectiveness and sustainability of participatory school governance.

Sampling Technique

This study employed purposive sampling, a non-probability sampling technique widely used in qualitative research to identify participants who possess firsthand knowledge and relevant experiences related to the phenomenon under investigation. Purposive sampling enabled the researcher to intentionally select individuals who could provide rich, detailed, and meaningful narratives regarding the implementation of School Governance Councils (SGCs) and the sustainability of governance practices in schools.

The selection of participants was guided by the following inclusion criteria:

1. The participant must be a current or active member of the School Governance Council.
2. The participant must have served in the School Governance Council for at least one academic year.
3. The participant must have actively participated in council meetings, governance activities, and decision-making processes.
4. The participant must be willing to share personal experiences and provide

informed consent for participation in the study.

The study aimed to include approximately 10 to 15 participants representing various stakeholder groups. However, the final number of participants was determined through the principle of data saturation, which occurs when no new themes, perspectives, or significant insights emerge from the participants' narratives.

To enhance the depth and breadth of the data, the study also incorporated maximum variation sampling as a complementary strategy. This approach ensured the inclusion of participants from schools with diverse governance contexts and varying levels of School Governance Council effectiveness. For instance, participants were selected from schools with highly functional and actively engaged SGCs as well as from schools experiencing challenges in governance implementation despite receiving capacity-building interventions and support.

By including participants from diverse school contexts, the study was able to capture a wide range of experiences, perspectives, and governance realities. This diversity contributed to a more comprehensive understanding of the factors that facilitate or hinder effective School Governance Council implementation and sustainability. Furthermore, the varied stakeholder perspectives enriched the analysis and strengthened the development of the proposed sustainability framework for participatory school governance.

Research Instrument

The primary research instrument used in this study was a semi-structured narrative interview guide. The interview guide consisted of open-ended questions designed to elicit participants' stories, reflections, perceptions, and lived experiences regarding the implementation of School Governance Councils (SGCs). The questions were aligned with the research objectives and were structured to encourage participants to share detailed narratives about governance practices, stakeholder participation, challenges encountered, and sustainability initiatives within their respective schools.

The semi-structured format allowed flexibility during the interview process, enabling participants to freely narrate their experiences while allowing the researcher to probe for clarification, elaboration, and deeper insights when necessary. This approach facilitated the collection of rich and comprehensive data while maintaining consistency across interviews.

To establish the content validity of the interview guide, the instrument was subjected to expert review by specialists in educational leadership, school governance, and qualitative research. Their recommendations and suggestions were incorporated to improve the clarity, relevance, and alignment of the interview questions with the objectives of the study.

In addition to the interviews, the researcher reviewed relevant governance-related documents, including School Governance Council meeting minutes, attendance records, School Improvement Plan (SIP) reports, council resolutions, governance plans, and other pertinent policy documents. These documents served as supplementary sources of data
and provided contextual evidence regarding governance implementation within the selected schools.

The use of both interviews and document analysis strengthened the credibility of the study through data triangulation. By comparing participants' narratives with documentary evidence, the researcher was able to validate findings, enhance the trustworthiness of the data, and develop a more comprehensive understanding of the realities surrounding School Governance Council implementation and sustainability.

Data Gathering Procedure

The data gathering process was conducted systematically to ensure the credibility, accuracy, and ethical integrity of the study. Prior to the commencement of data collection, the researcher secured the necessary approvals and permissions from the appropriate educational authorities, including the Schools Division Office and the school administrators of the selected schools. Upon receiving approval, the researcher identified potential participants who met the established inclusion criteria and coordinated with them regarding their voluntary participation and interview schedules.

Before conducting the interviews, the researcher explained the purpose, significance, and procedures of the study, as well as the ethical considerations involved. Participants were informed of their rights, including their right to decline participation or withdraw from the study at any stage without penalty. Written informed consent was obtained from all participants prior to the conduct of the interviews.

Data were primarily collected through semi-structured narrative interviews. The interviews were conducted at a time and location that were convenient and comfortable for the participants to encourage open and honest sharing of experiences. The researcher established rapport with the participants to create a supportive environment that facilitated meaningful storytelling and reflection regarding their experiences with School Governance Council (SGC) implementation.

With the participants' permission, all interviews were audio-recorded to ensure the accurate capture of their narratives. In addition, the researcher-maintained field notes throughout the interview process to document non-verbal cues, contextual information, participant reactions, and significant observations that may contribute to the interpretation of the data.

Following each interview, the audio recordings were transcribed verbatim to preserve the authenticity and richness of the participants' narratives. The transcriptions were carefully reviewed and compared with the audio recordings to ensure accuracy and completeness. To enhance the credibility of the findings, member checking was conducted by providing participants with the opportunity to review, clarify, verify, or elaborate on their responses and the interpretations derived from their narratives.

In addition to the interviews, relevant governance-related documents were collected and reviewed with permission from the school administrators. These documents included School Governance Council meeting minutes, attendance records, School Improvement Plan (SIP) reports, council resolutions, governance plans, and other pertinent records related to school governance. Document review served as a supplementary source of data and provided contextual information that supported and validated the participants' narratives.

The integration of interview data and documentary evidence enabled data triangulation, which strengthened the credibility and trustworthiness of the study. Through this systematic process, the researcher was able to gather comprehensive and meaningful information regarding the realities, challenges, practices, and sustainability mechanisms associated with School Governance Council implementation.

Data Analysis Procedure

The data collected from the narrative interviews and document review were analyzed using narrative thematic analysis. Narrative thematic analysis is a qualitative analytical approach that focuses on identifying patterns of meaning across participants' stories while preserving the context, sequence, and integrity of individual narratives. This method was deemed appropriate for the study because it enabled the researcher to explore the lived experiences, perspectives, and interpretations of School Governance Council (SGC) stakeholders regarding governance implementation and sustainability.

Results and Discussion

This chapter presents the qualitative evidence generated from the participants, followed by thematic analysis, cross-case interpretation, and expert appraisal of the resulting framework. The study explores the lived experiences, operational practices, and systemic challenges of School Governance Council (SGC) stakeholders and uses those accounts to construct an empirically grounded sustainability framework for local school governance.

The chapter proceeds from participant profiles and component-level findings to an integrated response to the research objectives. It then traces the proposed Institutionalized Resilience Ecosystem–Unified Participatory Resource

Architecture (IRE-UPRA) Framework to the qualitative evidence, reports its expert validation, identifies revisions arising from that appraisal, and delineates the empirical work still required before claims of effectiveness can be made.

Data Adequacy, Information Power, and Saturation

The purposive sample comprised 27 participants occupying five structurally distinct positions in the SGC: 13 school heads, six teacher representatives, four parent representatives, one learner representative, and three community or alumni stakeholders. This composition was designed for analytic diversity rather than statistical representation. Sample adequacy was therefore considered in relation to the information power of the cases—the alignment of participants with the research aim, the specificity and experiential relevance of their accounts, the quality of cross-role comparison, and the study's case-oriented analytic strategy—rather than through sample size alone (Malterud, Siersma, & Guassora, 2016).

Saturation was interpreted at two related levels. Code saturation concerns whether additional accounts introduce substantively new codes, whereas meaning saturation concerns whether the dimensions, variations, and relationships within established codes are sufficiently understood (Hennink, Kaiser, & Marconi, 2017). Across the completed dataset, the recurrent appearance of time poverty, uneven policy literacy, fiscal constraints, role asymmetry, turnover-related memory loss, passive participation, and core-team overload provided evidence of code recurrence. Meaning was further elaborated by contrasts among stakeholder positions and by divergent cases—for example, school heads who described their role as executive control versus facilitative stewardship, and councils reporting different levels of training, attendance, and continuity. These convergences and variations were sufficient to support the cross-case themes from which IRE-UPRA was constructed.

A precise interview number at which saturation occurred is not assigned retrospectively because the materials available for this chapter did not include an interview-sequence saturation log or a dated cumulative codebook. The defensible claim is therefore thematic sufficiency in the completed dataset, not proof that all possible experiences were exhausted. Moreover, within-group saturation cannot be claimed for the learner (n = 1), community/alumni (n = 3), or parent (n = 4) subgroups. Their accounts provide important analytic contrast, but they should not be treated as exhaustive representations of those constituencies. This boundary is relevant to the transferability of the findings and supports further sampling of less-represented stakeholder groups in subsequent studies.

Researcher Positionality and Reflexive Influence

The researcher approached the inquiry with prior familiarity with the language, procedures, and institutional expectations of Philippine public-school governance. This contextual familiarity supported rapport and enabled policy references and operational details to be probed efficiently. It also created

interpretive risks. Familiarity can normalize practices that participants experience as problematic, encourage assumptions of shared understanding, or orient attention toward administrative and system-based solutions. Because the study was explicitly intended to generate a sustainability framework, the researcher also had a potential investment in organizing the data into actionable mechanisms.

Positionality may also have shaped what participants chose to disclose. In a hierarchical school setting, respondents may present policy-consistent accounts, minimize criticism, or defer to what they believe an education-sector researcher expects, particularly when discussing school heads, finances, compliance, or local political relationships. Conversely, participants who perceived the interview as a protected space may have emphasized dissatisfaction that is less visible in official records. These possibilities mean that quotations are interpreted as situated accounts rather than unmediated facts.

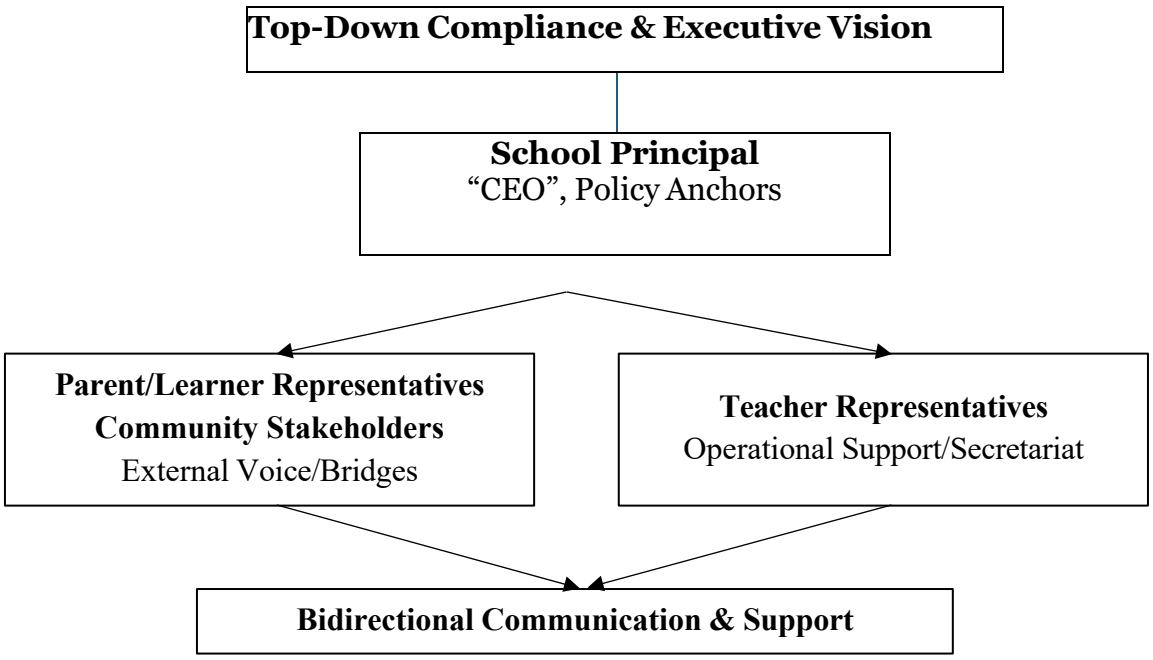
The analysis addresses—but does not claim to eliminate—this influence by retaining participant identifiers with quoted evidence, comparing interpretations across stakeholder positions, attending to discrepant accounts, distinguishing participant perception from researcher inference, and moderating claims that extend beyond the data. Reflexivity is thus treated as an ongoing examination of how the researcher's location and purpose shape knowledge production, rather than as a declaration of neutrality (Berger, 2015).

Component 1: Profile and Role Orientation of School Governance Council (SGC) Stakeholders

To establish a foundational context for the study's primary objective—exploring the lived experiences of School Governance Council (SGC) stakeholders—it is essential to analyze how these actors understand, internalize, and enact their designated roles. The SGC is structurally designed as a micro-governance mechanism operating within a collaborative framework. However, the qualitative narratives provided by the 27 participants reveal that role perception is deeply stratified by the stakeholder's structural position within the school ecosystem.

Figure 1

Role Perception within the school ecosystem.



The Principal as the Compliance Anchor and "Chief Executive Officer"

Among the school heads interviewed (n = 13), there is a pervasive, highly institutionalized tendency to frame their SGC role through the lens of executive accountability, administrative oversight, and strict policy alignment. Rather than viewing themselves merely as equal members of a collaborative council, principals consistently utilize corporate and bureaucratic nomenclature to define their governance boundaries. For instance, Participants 002, 006, and 010 explicitly identified their roles as the "Chief Executive Officer" (CEO) or "head" of the council. This linguistic pattern indicates that even within a decentralized, participatory governance model, school heads retain a centralized sense of final operational accountability.

This executive orientation is structurally anchored in top-down mandates, specifically citing national educational directives. Participant 010 remarked:

"In my present station... I am serving as the chief executive officer of the SGC for 10 months only... But I have acted as CEO of the SGC since 2002 [sic] when DepEd Order No. 26, s. 2022 was released. And DepEd Order No. 26, s. 2022 is about the implementing guidelines and establishment of the School Governance Council."

This perspective is echoed by Participant 009, who views their presence as an "ex-officio member and the facilitator... based on DepEd Order 26, 2022."

Consequently, for school heads, the SGC is not an amorphous or purely organic community assembly; it is a highly structured, legalized vehicle designed to synchronize local school initiatives with national standards.

This compliance-driven focus manifests in how principals define their primary tasks, which heavily revolve around aligning council choices with institutional roadmaps, such as the School Improvement Plan (SIP) and the Annual Implementation Plan (AIP). As Participant 006 explained:

"My role is to ensure that SGC recommendations are aligned with the SIP, AIP, and the DepEd policies... Say, for example, when the SGC recommends to prioritize reading interventions, as the school head, I have to ensure that these are reflected in the different plans being implemented in the school."

Interestingly, a critical conceptual divergence emerges in how some principals navigate this authority. While the dominant narrative frames the school head as an executive leader, Participant 013 offered an alternative model of democratic governance, stating that the principal should act as an "SGC advisor and play a guiding, facilitative, and technical support role rather than a controlling one." This tension

between authoritative control and democratic facilitation *represents a critical dynamic in the implementation of local governance.*

Teachers and Parents as Communication Bridges and Operational Support

In stark contrast to the executive and policy-centric framing utilized by school heads, the non-administrative stakeholders—comprising parent representatives (n = 4), teacher representatives (n = 6), the learner representative (n = 1), and community/alumni stakeholders (n = 3)—conceptualize their roles through themes of representation, operational support, and bidirectional communication.

For parent and teacher representatives, the SGC serves primarily as a communicative conduit designed to span the boundary between internal school management and the broader community. These participants consistently used the metaphor of a "bridge" to illustrate their lived reality within the council. Participant 027 noted that they "bridge the gap between internal school administration and other SGC members," while Participant 025 reinforced this by stating they "act as a bridge, sharing feedback and suggestions between the school administration and the stakeholders." Furthermore, parent representatives view their seats on the council as a mechanism for democratic advocacy, ensuring that the localized, grassroots concerns of families are elevated to the administrative level. Participant 016, a General Parent-Teacher Association (GPTA) President, described their role as dynamic and participatory:

"My role is to represent the parents and support the school in implementing programs... Ako po ay dumadalo sa meetings, nagbibigay ng feedback and concerns ng parents, at hinihikayat ang active participation ng mga magulang sa school activities (I attend meetings, give feedback regarding parent concerns, and encourage parents' active participation)."

For teacher representatives, the role shifts from advocacy to operational and clerical execution. Teachers frequently take on systemic, bureaucratic maintenance roles within the council, serving as the administrative engine that keeps the SGC functional. This is explicitly demonstrated by Participants 023 and 024, who serve as SGC Secretaries, defining their responsibilities around "preparing meeting agendas, recording minutes, keeping official records, and sending notices."

Institutional Memory and Tenure Disparities: A Vulnerability for Sustainability

A critical finding that directly impacts the development of a long-term sustainability framework is the sharp disparity in **tenure and institutional memory** across different stakeholder cohorts. The qualitative data reveals a deeply unequal distribution of experience within the council matrix:

- **Long-Term Stability (School Heads and Teachers):** Principals and teachers exhibit long-term continuity, with individuals like Participant 012 serving as a school head for nearly seven years, and several teacher representatives (e.g., Participants 018, 021, 026) maintaining their roles for three to five continuous years.

- **High-Turnover Vulnerability (Parents and Learners):** Parent and learner representatives are characterized by transient, highly volatile tenures. Except for Participant 017, who has served for approximately four years, the majority of parent representatives (Participants 014, 015, and 016) and the learner representative (Participant 019) reported a tenure of only one school year or bounded strictly by their active leadership terms in the PTA or Supreme Secondary Learner Government (SSLG).

This structural asymmetry creates an institutional memory gap. Because parents and learners rotate out of the council annually, the institutional knowledge regarding past SGC decisions, operational protocols, and long-term planning remains concentrated almost exclusively in the hands of the school administration and faculty.

The empirical findings from this component confirm that while the SGC is theoretically designed as a landscape of shared leadership, its practical implementation is highly stratified. The data shows that roles are divided into an *Executive/Policy Nexus* (occupied by school heads) and an *Operational/Communicative Support Network* (occupied by parents, teachers,

and learners).

This clear division aligns with democratic governance theories, which state that decentralization works best when local managers provide technical guidance while community stakeholders provide democratic legitimacy. However, the heavy reliance on corporate framing—such as defining the principal as a "CEO"—suggests that traditional, top-down bureaucratic control still heavily influences these councils. This can inadvertently minimize the collaborative agency of community members, turning them into passive supporters of the principal's agenda rather than co-equal policymakers.

Additionally, the stark difference in tenure between internal school staff and external stakeholders poses a major challenge to the sustainability framework this study seeks to build. When parent and student terms are limited to a single year, the council faces a constant loss of trained members. This high turnover means the SGC must constantly restart its capacity-building efforts. As a result, the council risks falling into a cycle of administrative dominance, where only the long-serving school staff possess the historical knowledge to guide decisions.

To achieve true sustainability, any proposed framework must include structural mechanisms—such as staggered terms, systematic transition handovers, or mentorship pipelines—to ensure that community and parent representation remains strong, continuous, and effective over the long term.

Capacity Building, Training Allocations, and Governance Readiness

A critical determinant in the structural viability and ultimate operational success of decentralized educational governance is the nature, frequency, and adequacy of the training provided to its actors. School Governance Councils cannot organically manifest democratic efficacy without systematic, intentional capacity building. The narratives concerning the training received by the participants reveal a highly asymmetric professional development landscape—one that heavily favors institutional school heads while leaving community, parent, and teacher stakeholders navigating structural vacuums.

For the school heads (n = 12 responsive participants) and select designated teacher co-chairpersons, the training experience is characterized by structural saturation, direct institutional backing from the Department of Education (DepEd) Division and Regional Offices, and a strong focus on strategic planning frameworks. Principals consistently reported participation in high-level, multi-day seminars covering complex structural operations such as School-Based Management (SBM), the creation of School Improvement Plans (SIP), and Annual Implementation Plans (AIP).

Exhaustive in-person committee assignments, the framework distributes the operational workload across a much wider pool of community volunteers. This protects core champions from burnout, respects the time constraints of working parents, and ensures that the SGC remains stable, functional, and deeply resilient

across generations.

Component 8: Recommendations for Policy, Practice, and Structural Reformation ***the Blueprint for Regenerative Governance: Holistic Inter-Agency Frameworks and Democratic Professionalization***

The final phase of analyzing the School Governance Council (SGC) requires translating empirical challenges into a systematic framework for institutional reform. When asked to identify the specific improvements required to transform the SGC from a passive compliance body into a highly functional vehicle for democratic school governance, the 27 participants did not offer minor, cosmetic adjustments. Instead, the qualitative data outlines a deep, comprehensive demand for macro-structural reformation (012, 013).

To build an enduring, self-sustaining governance model, the data reveals four urgent, structural transformations: *The Shift to Inter-Agency Institutionalization*, *The Implementation of Non-Conflict Team-Building and Psychological Demystification*, *The Adoption of Asynchronous Micro-Tasking*, and *The Institutionalization of Practical, Continuous Training Blueprints*.

Cross-Case Distribution of Objective 1 Components

To confirm the presence of these operational experiences across the study, the following matrix tracks the specific behavioral indicators found within the responses for Components 1 and 3.

Table 1

Cross-Case Distribution of Objective 1 Components

Core Lived Experience Indicator	Specific Manifestation in Transcripts	Primary Source Groups
Quorum Instability & Shift Work	Attendance drops among external layers due to job obligations; heavy reliance on text messaging to secure votes.	001, 002, 003, 004, 005, 010, 011, 013, 015, 016, 020, 021, 022, 024, 026

Administrative Literacy Gaps	Hesitancy to speak during high-level SIP/AIP updates; intimidation caused by educational jargon.	003, 005, 006, 011, 013, 021, 025, 026
Professional Decision Vetting	Primary proposals are generated by school staff; external members function as secondary validation voters.	001, 004, 005, 008, 013, 015, 017, 020, 021, 025, 026

Conclusions

Within the scope of the participating schools and stakeholder accounts, the study concludes that the sustainability of School Governance Councils depends less on episodic commitment than on institutional arrangements that make participation understandable, proportionate, traceable, and resilient to turnover. The formal presence of multiple stakeholders is necessary but insufficient. Participation becomes meaningful when members can understand the issue, influence an appropriate stage of the governance process, complete a feasible contribution, see how decisions and resources are handled, and review what followed from their involvement.

First, SGC practice is characterized by a persistent gap between formal participatory design and unequal capacity to participate. Professional duty, technical literacy, documentary access, and lawful authority give internal actors continuity, whereas volunteer stakeholders face time, income, language, and access constraints. Sustainable participation therefore requires structural accommodation rather than appeals for greater volunteer commitment alone.

Second, the complementary roles of internal and external stakeholders are a potential strength when authority boundaries are explicit and consultation occurs before priorities are finalized. Role clarity should preserve the school head's administrative and fiscal responsibilities while preventing community participation from being reduced to endorsement, labor, or emergency fundraising.

Third, the principal implementation barriers are mutually reinforced. Time poverty, uneven policy literacy, fiscal constraints, institutional isolation, and

turnover-related memory loss can convert participatory governance into passive compliance and can repeatedly return councils to an initial stage of organization. These conditions require coordinated mechanisms rather than a single training session, digital platform, or committed leader.

Fourth, existing council practices already contain the foundations of sustainability architecture. Simplified monitoring, committee-based leadership, transparent reporting, mobile and offline coordination, structured handover, and cross-sector partnership are not isolated conveniences; when institutionalized and safeguarded, they can form mutually reinforcing governance mechanisms.

Fifth, IRE-UPRA provides a coherent conceptual response to the empirical problem. Its contribution lies in integrating record continuity, proportionate participation, accessible monitoring, resource co-stewardship, and cross-sector continuity within an adaptive, student-centered system. Its unity is functional: no pillar is expected to produce sustainability independently, and all are conditioned by legal alignment, equity, privacy, accountability, and documented adaptation.

Sixth, the expert appraisal justifies retaining the five-pillar architecture with minor presentational revisions. The high level of agreement supports content-related acceptability and conceptual plausibility, but it does not justify stating that the framework is fully validated or effective. The final framework is therefore the study's principal testable contribution rather than a guarantee of improved governance.

Finally, the conclusions are analytically transferable rather than statistically generalizable. The purposive sample generated sufficient cross-role evidence for the reported themes, but smaller stakeholder subgroups, the absence of a sequential saturation audit, the researcher's positionality, and the limited expert panel constrain claims of exhaustiveness and broad applicability. Application outside the studied setting should proceed through documented adaptation and empirical evaluation.

References

Adams, D., & Gamage, D. T. (2008). *School-based management and parental participation in education: A comparison between state policies in the United States and New South Wales*.

Aiken, L. R. (1985). *Three coefficients for analyzing the reliability and validity of ratings*. Educational and Psychological Measurement, 45(1), 131–142. https://doi.org/10.1177/0013164485451012

Arar, K., & Oplatka, I. (2022). *Advanced theory on school leadership*.

Berger, R. (2015). *Now I see it, now I don't: Researcher's position and reflexivity in qualitative research*. Qualitative Research, 15(2), 219–234. https://doi.org/10.1177/1468794112468475

Botha, R. J. (2011). *School-based management and parental participation in education: Local action, global perspective*.

De Lara, R., & Pañares, M. (2023). *The relationship between School Governing Council effectiveness and School-Based Management implementation in selected divisions*.

Department of Education. (2022). *DepEd Order No. 26, s. 2022: Implementing guidelines on the establishment of School Governing Councils (SGCs)*. https://www.deped.gov.ph

Hennink, M. M., Kaiser, B. N., & Marconi, V. C. (2017). *Code saturation versus meaning saturation: How many interviews are enough?* Qualitative Health Research, 27(4), 591–608. https://doi.org/10.1177/1049732316665344

Lewis, S. G., & Naidoo, J. (2004). *Whose education? Shared responsibility in educational governance*. (Unpublished manuscript/Abstract).

Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). *Sample size in qualitative interview studies: Guided by information power*. Qualitative Health Research, 26(13), 1753–1760. https://doi.org/10.1177/1049732315617444

Mestry, R. (2021). *The impact of school-based management on school effectiveness in South African public schools*.

Patrinos, H. A. (2011). *The impact of school-based management on educational outcomes*. (Unpublished manuscript/Abstract).

Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., Griffey, R., & Hensley, M. (2011). *Outcomes for implementation research: Conceptual distinctions, measurement challenges, and research agenda*. Administration and Policy in Mental Health and Mental Health Services Research, 38, 65–76. https://doi.org/10.1007/s10488-010-0319-7

Republic of the Philippines. (1998). *Republic Act No. 8525: Adopt-a-School Act of 1998*. https://www.officialgazette.gov.ph

Republic of the Philippines. (2001). *Republic Act No. 9155: Governance of Basic Education Act of 2001*. https://www.officialgazette.gov.ph

Source Material. (n.d.). *Related literature on School Governing Council (SGC) and Synthesis*. (Unpublished document provided by user).

ANTAS NG INTERES SA PANITIKANG FILIPINO SA PAGGAMIT NG INTERACTIVE LEARNING ACTIVITIES NG MGA MAG-AARAL SA SEKONDARYA

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Abstrak

Ang pag-aaral na ito na may pamagat na **"Antas ng Interes sa Panitikang Filipino sa Paggamit ng Interactive Learning Activities ng mga Mag-aaral sa Sekondarya"** ay isinagawa upang matukoy ang antas ng interes ng mga mag-aaral sa Panitikang Filipino batay sa paggamit ng iba't ibang **Interactive Learning Activities (ILA)**. Nilalayon din nitong matukoy kung paano nakatutulong ang mga gawaing interaktibo sa pagpapataas ng pakikilahok, pag-unawa, at pagpapahalaga ng mga mag-aaral sa asignaturang Filipino. Gumamit ang pag-aaral ng **deskriptibong disenyo ng pananaliksik (Descriptive Research Design)** upang mailarawan at masuri ang antas ng interes ng mga kalahok. Ang mga respondente ng pag-aaral ay mga piling mag-aaral sa sekondarya mula **ika-7 baitang hanggang ika-10 baitang ng Naile National High School** sa taong panuruan **2026–2027**. Bilang instrumento sa pangangalap ng datos, ginamit ang isang **balidado at pinagtibay na talatanungan (survey questionnaire)** na gumagamit ng **Likert Scale** upang masukat ang antas ng interes ng mga mag-aaral sa paggamit ng Interactive Learning Activities. Ang mga nakalap na datos ay sinuri gamit ang mga estadistikal na pamamaraan na **Frequency at Percentage** upang mailarawan ang demograpikong katangian ng mga respondente, at **Weighted Mean** upang matukoy ang antas ng interes ng mga mag-aaral sa Panitikang Filipino batay sa paggamit ng Interactive Learning Activities. Inaasahang maipakikita ng resulta ng pag-aaral na ang paggamit ng iba't ibang Interactive Learning Activities, tulad ng pangkatang gawain, educational games, role playing, collaborative learning, at multimedia presentations, ay may positibong ambag sa pagtaas ng interes, aktibong pakikilahok, at mas malalim na pag-unawa ng mga mag-aaral sa Panitikang Filipino. Ang mga natuklasan ng pag-aaral ay magsisilbing batayan sa pagbuo ng mas makabago, makahulugan, at epektibong estratehiya sa pagtuturo ng Panitikang Filipino sa antas ng sekondarya.

Mga Susing Salita: Panitikang Filipino, Interactive Learning Activities, Antas ng Interes, Estratehiya sa Pagtuturo, Edukasyong Sekondarya

Introduksiyon

Sa patuloy na pag-unlad ng panahon, patuloy din ang pag-unlad ng edukasyon. Malaking hamon sa mga guro at institusyon ang pagtugon sa mga pangangailangan ng mga mag-aaral lalong lalo na sa makabagong panahon. Kasabay ng mabilis na pag-usbong

ng teknolohiya at digital na kapaligiran, nagbabago rin ang paraan ng pagkatuto ng kabataan. Dahil dito, kinakailangan ang mas makabago, interaktibo, at makabuluhang estratehiya sa pagtuturo upang mapanatili ang kanilang interes at aktibong pakikilahok sa klase. Sa kasalukuyang panahon, mapapansin na karamihan sa ating mga kabataan ngayon ay hindi gaanong aktibo o naaakit na matuto sa pag-aaral ng Panitikang Filipino. Sa ganitong pamamaraan, maaaring maiugnay natin ang sa tradisyunal na pamamaraan ng pagtuturo. Limitado lamang ang partisipasyon at interes ng mga mag-aaral, magpahayag ng sariling ideya at magkaroon ng mas malalim at malawakang pag-unawa sa asignaturang Filipino lalong lalo na sa panitikang Filipino. Ipinapakita ng mga naunang pag-aaral na ang kahusayan ng guro sa pagtuturo ay may direktang epekto sa interes ng mag-aaral sa asignatura (Charles, et. al 2023; Gloria., 2021). Gayundin, ipinapakita ni Ma (2021) na ang guro ay may malaking papel sa pagpapalakas ng interes ng mag-aaral sa asignatura, kaya't ang kakayahan ng guro ay isang mahalagang bahagi ng pagtuturo ng asignatura.

Ang panitikang Filipino ay nagsisilbing salamin sa ating wika at kultura. Nilalaman nito ang mag kasaysayan ng ating pagkakakilanlan bilang isang Filipino. Taglay ng ating panitikan ang mga pangyayaring bumuo sa ating kasalukuyan. Sa pamamagitan nito, naipapahayag ang damdamin, karanasan, at pananaw ng mga tao sa iba't ibang panahon. Sa kabila ng kagandahan nito, unit-unti nang nalalaos ang ating panitikan dahil sa kawalan ng interes ng mga mag-aaral at sa hindi magandang estratehiya sa pagtuturo ng mga guro.

Kaugnay nito, ang paggamit ng Interactive Learning Activities ay naging isa sa mga estratehiyang ginagamit upang mapataas ang interes at pakikilahok ng mga mag-aaral. Ang mga interaktibong gawaing ito ay nagbibigay ng pagkakataon sa mga mag-aaral na maging aktibong kalahok sa pagbuo ng kaalaman sa pamamagitan ng pakikipagtulungan, talakayan, malikhaing gawain, pagsusuri, at paggamit ng iba't ibang kagamitang panturo. Sa ganitong paraan, hindi lamang natututuhan ng mga mag-aaral ang nilalaman ng aralin kundi nahuhubog din ang kanilang kritikal na pag-iisip, pagkamalikhain, at kakayahang makipag-ugnayan sa iba.

Ang pag-aaral na ito ay nakabatay sa Constructivist Learning Theory ni Jean Piaget na nagsasaad na ang mga mag-aaral ay aktibong bumubuo ng sariling kaalaman batay sa kanilang karanasan at pakikipag-ugnayan sa kapaligiran. Sa pananaw na ito, mas nagiging epektibo ang pagkatuto kapag ang mga mag-aaral ay kasangkot sa mga gawaing nagbibigay sa kanila ng pagkakataong magsuri, magtanong, magbahagi ng ideya, at makipagtulungan sa iba.

Sinusuportahan din ito ng Social Constructivism Theory ni Lev Vygotsky na nagbibigay-diin sa kahalagahan ng pakikipag-ugnayan sa iba bilang bahagi ng proseso ng pagkatuto. Ayon sa teoryang ito, ang pagkatuto ay higit na napauunlad sa pamamagitan ng kolaborasyon, paggabay ng guro, at interaksiyon ng mga mag-aaral. Kaugnay nito, ang mga interactive learning activities ay maaaring magsilbing paraan upang mapaunlad ang interes at paglahok ng mga mag-aaral sa pag-aaral ng Panitikang Filipino.

Sa konteksto ng Naile National High School, mahalagang malaman ang antas ng interes ng mga mag-aaral sa Panitikang Filipino batay sa paggamit ng interactive learning activities upang matukoy kung paano nakatutulong ang mga gawaing ito sa kanilang pagkatuto. Ang pag-aaral na ito ay naglalayong suriin ang antas ng interes ng mga mag-aaral sa sekondarya at alamin ang kaugnayan ng paggamit ng mga interaktibong gawain sa kanilang pakikilahok at pagpapahalaga sa pag-aaral ng Panitikang Filipino.

Sa pamamagitan ng pag-aaral na ito, inaasahang makapagbibigay ito ng impormasyon na maaaring maging batayan ng mga guro sa pagpili at paglinang ng mga angkop na estratehiya sa pagtuturo ng Panitikang Filipino. Makakatulong din ito sa patuloy na pagpapaunlad ng mga gawaing pampagkatuto na higit na makapagpapataas ng interes, pagkamalikhain, at aktibong partisipasyon ng mga mag-aaral sa larangan ng panitikan.

Teyoritikal na Balangkas

Ang pag-aaral na ito na may pamagat na "Antas ng Interes ng mga Mag-aaral sa Sekondarya ng Naile National High School sa Panitikang Filipino Batay sa Paggamit ng Interactive Learning Activities" ay nakabatay sa iba't ibang teorya sa pagkatuto na nagpapaliwanag kung paano nahuhubog ang interes at pagkatuto ng mga mag-aaral.

Una, nakabatay ito sa Constructivist Theory ni Jean Piaget, na nagsasaad na ang mga mag-aaral ay aktibong bumubuo ng kanilang kaalaman sa pamamagitan ng karanasan. Sa kontekstong ito, ang paggamit ng *interactive learning activities* ay nagbibigay-daan sa mga mag-aaral upang mas maging aktibo sa pagkatuto ng Panitikang Filipino, na nagreresulta sa mas mataas na antas ng interes.

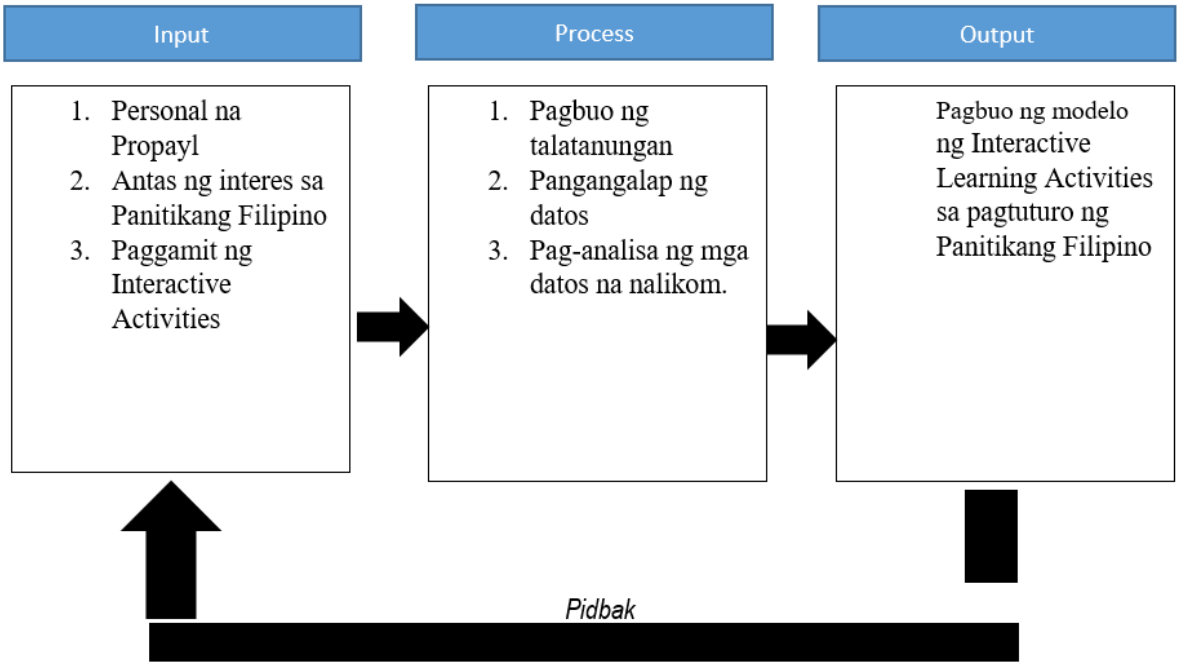
Ikalawa, sinusuportahan ito ng Social Development Theory ni Lev Vygotsky, na nagbibigay-diin sa kahalagahan ng pakikipag-ugnayan sa kapwa mag-aaral at guro. Sa pamamagitan ng mga kolaboratibong gawain tulad ng group discussion at role playing, napapalakas ang interes at pag-unawa ng mga mag-aaral sa aralin.

Ikatlo, nakabatay rin ang pag-aaral sa Experiential Learning Theory ni John Dewey**,** na nagsasaad na mas epektibo ang pagkatuto kapag ito ay "learning by doing." Ang mga interaktibong gawain ay nagbibigay ng aktuwal na karanasan na nakatutulong upang mapanatili ang interes ng mga mag-aaral sa Panitikang Filipino.

Dagdag pa rito, isinasaalang-alang din ang Multiple Intelligences Theory ni Howard Gardner**,** na nagpapakita na ang mga mag-aaral ay may iba't ibang paraan ng pagkatuto. Sa pamamagitan ng paggamit ng iba't ibang *interactive learning activities*, natutugunan ang iba't ibang kakayahan at estilo ng pagkatuto ng mga mag-aaral, na nagreresulta sa mas mataas na interes.
Sa kabuuan, ipinapakita ng mga teoryang ito na ang paggamit ng *interactive learning activities*
ay may mahalagang papel sa pagpapataas ng antas ng interes ng mga mag-aaral sa Panitikang

Filipino.

Batayang Konseptwal



Ang batayang konseptwal ng pag-aaral na ito ay nakabatay sa Input–Process–Output (IPO) Model, na nagpapakita ng sistematikong daloy ng pananaliksik. Sa bahaging Input, isinasaalang-alang ang mga baryabol na kinabibilangan ng personal na propayl ng mga respondente, antas ng interes sa Panitikang Filipino, at paggamit ng Interactive Activities sa pagtuturo. Ang mga salik na ito ang nagsisilbing pangunahing batayan sa pagsusuri ng kasalukuyang kalagayan ng mga mag-aaral at ng mga estratehiyang ginagamit sa pagkatuto.

Sa bahaging Process, isinagawa ang mga hakbang na kinabibilangan ng pagbuo ng talatanungan, pangangalap ng datos, at pag-aanalisa ng mga nalikom na datos. Ang mga prosesong ito ay naglalayong makalikom ng tumpak at mapagkakatiwalaang impormasyon upang matukoy ang ugnayan ng mga baryabol at makabuo ng mga batayang datos na magsisilbing gabay sa pag-aaral.

Sa huling bahagi, ang Output ng pag-aaral ay ang pagbuo ng modelo ng Interactive Learning Activities sa pagtuturo ng Panitikang Filipino. Ang modelong ito ay inaasahang magsisilbing gabay sa mga guro sa pagdidisenyo at pagpapatupad ng mga makabago, interaktibo, at makabuluhang gawaing pampagkatuto na magpapataas ng interes, aktibong partisipasyon, at pag-unawa ng mga mag-aaral sa Panitikang Filipino. Ang modelong ito ay nabuo batay sa mga natuklasan sa pag-aaral upang higit na matugunan ang pangangailangan ng mga mag-aaral at mapabuti ang kalidad ng pagtuturo ng asignatura.

Paglalahad ng Suliranin

Ang pag-aaral na ito ay naglalayong matukoy ang Antas ng Interes ng mga mag-aaral sa sekondarya sa Panitikang Filipino batay sa paggamit ng Interactive Learning Activities.

Layunin din nitong malaman kung paano nakatutulong ang mga makabagong estratehiya sa pagtuturo upang higit na mahikayat ang mga mag-aaral na pahalagahan ang mga akdang pampanitikan.

Ang pangunahing layunin ng pag-aaral na ito ay matukoy ang antas ng interes ng mga mag-aaral sa sekondarya ng Naile National High School sa Panitikang Filipino batay sa paggamit ng Interactive Learning Activities sa taong panuruan 2025–2026.

Partikular, hinahangad ng pag-aaral na masagot ang mga sumusunod na katanungan:

1. Ano ang personal na propayl ng mga respondente batay sa:
   1.1 Edad; at
   1.2 Kasarian
2. Ano ang antas ng interes ng mga mag-aaral sa Panitikang Filipino batay sa paggamit ng Interactive Learning Activities?
3. Ano ang antas ng paggamit ng Interactive Learning Activities sa pagtuturo ng Panitikang Filipino?
4. Batay sa mga natuklasan ng pag-aaral, anong mga rekomendasyon ang maaaring imungkahi upang higit pang mapaunlad ang paggamit ng Interactive Learning Activities sa pagtuturo ng Panitikang Filipino?

Saklaw at Hangganan ng Pag-aaral

Ang pag-aaral na ito ay naglalayong suriin ang antas ng interes ng mga mag-aaral sa sekondarya sa pag-aaral ng Panitikang Filipino**,** partikular na nakatuon sa epekto ng paggamit ng *interactive learning activities* bilang estratehiya sa pagtuturo. Layunin nitong matukoy ang lebel ng interes ng mga mag-aaral batay sa kanilang pakikilahok, atensyon, motibasyon, at pagpapahalaga sa mga akdang pampanitikan. Saklaw ng pag-aaral ang mga piling mag-aaral sa antas ng sekondarya mula sa Naile National High School sa taong panuruan 2025–2026. Ang mga respondente ay pipiliin gamit ang angkop na teknik sa puposive sampling at sila ay sasagot sa isang inihandang talatanungan (questionnaire) bilang pangunahing instrumento sa pangangalap ng datos. Ang pag-aaral ay nakatuon lamang sa asignaturang Panitikang Filipino at sa paggamit ng mga piling *interactive learning activities* gaya ng group discussion, role playing, at paggamit ng multimedia.

Sa kabilang banda, ang pag-aaral na ito ay may ilang hangganan. Una, ito ay limitado lamang sa mga mag-aaral mula sa napiling paaralan kaya't hindi maaaring i-generalize ang resulta sa lahat ng mag-aaral sa sekondarya sa buong bansa. Ikalawa, hindi saklaw ng pag-aaral ang iba pang salik na maaaring makaapekto sa interes ng mga mag-aaral tulad ng kanilang sosyo-ekonomikong kalagayan, antas ng katalinuhan, impluwensya ng pamilya, at personal na interes sa iba pang asignatura. Ikatlo, ang datos ay nakabatay lamang sa mga sagot ng mga respondente sa talatanungan kaya't maaaring

maapektuhan ito ng kanilang pagiging tapat at kaseryosohan sa pagsagot. Higit pa rito, hindi layunin ng pag-aaral na ito na sukatin ang akademikong pagganap o marka ng mga mag-aaral, bagkus ay nakatuon lamang ito sa kanilang antas ng interes sa pag-aaral ng Panitikang Filipino.

Sa kabuuan, ang pag-aaral na ito ay nakapokus sa isang tiyak na konteksto at populasyon, kaya't ang interpretasyon ng resulta ay dapat isaalang-alang ang mga nabanggit na limitasyon.

Kahalagahan ng Pag-aaral

Ang pag-aaral na ito na may pamagat na *"Antas ng Interes ng mga Mag-aaral sa Sekondarya sa Pag-aaral ng Panitikang Filipino Batay sa Paggamit ng Interactive Learning Activities"* ay mahalaga sa iba't ibang sektor na may kinalaman sa edukasyon.

Sa mga Mag-aaral.
Makakatulong ang pag-aaral na ito upang mas mapukaw ang kanilang interes sa Panitikang Filipino sa pamamagitan ng paggamit ng mga makabagong estratehiya sa pagkatuto. Maaari rin nitong mapalalim ang kanilang pag-unawa at pagpapahalaga sa sariling panitikan.

Sa mga Guro.
Magiging gabay ang resulta ng pag-aaral na ito sa pagpili ng angkop at epektibong *interactive learning activities* upang mapataas ang interes at partisipasyon ng mga mag-aaral sa klase.

Sa mga Paaralan.
Makakatulong ang pag-aaral na ito sa paglinang ng mga programang pang-akademiko na nakatuon sa pagpapabuti ng pagtuturo ng Panitikang Filipino, lalo na sa paggamit ng makabagong pamamaraan sa pagtuturo.

Sa mga Tagapagdisenyo ng Kurikulum (Curriculum Developers).
Magagamit ang resulta ng pag-aaral bilang batayan sa paglinang at pagrebisa ng kurikulum upang mas maging angkop ito sa pangangailangan at interes ng mga mag-aaral.

Sa mga Mananaliksik sa Hinaharap.
Ang pag-aaral na ito ay maaaring magsilbing sanggunian o batayan ng mga susunod pang pananaliksik na may kaugnayan sa interes ng mga mag-aaral at mga estratehiya sa pagtuturo ng panitikan.

Sa Larangan ng Edukasyon.
Makakatulong ito sa pagpapalawak ng kaalaman hinggil sa kahalagahan ng paggamit ng *interactive learning activities* bilang isang mabisang paraan upang mapaigting ang interes sa pag-aaral ng Panitikang Filipino.

Talasalitaan
Ang sumusunod na mga termino ay binigyang-kahulugan batay sa kung paano ito ginamit sa pag-aaral:

Antas ng Interes – Tumutukoy sa lebel ng pagkagusto, atensyon, at pakikilahok ng mga mag-aaral sa pag-aaral ng Panitikang Filipino.

Mag-aaral sa Sekondarya – Mga estudyanteng nasa junior at senior high school na kabilang sa respondente ng pag-aaral.

Panitikang Filipino – Koleksyon ng mga akdang pampanitikan ng Pilipinas tulad ng tula, maikling kuwento, nobela, at dula na ginagamit bilang asignatura sa paaralan.

Interactive Learning Activities – Mga gawaing pampagtuturo na aktibong kinabibilangan ng mga mag-aaral tulad ng group discussion, role playing, at paggamit ng multimedia upang mapataas ang kanilang partisipasyon.

Pakikilahok – Antas ng aktibong pagsali ng mga mag-aaral sa mga gawain sa loob ng klase.

Motibasyon – Panloob o panlabas na salik na nagtutulak sa mga mag-aaral upang matuto at makilahok sa klase.

Pag-unawa – Kakayahan ng mag-aaral na maintindihan at maipaliwanag ang mga konsepto at akdang pampanitikan.

Pagpapahalaga – Pagkilala at pagbibigay-halaga ng mga mag-aaral sa kahalagahan ng Panitikang Filipino sa kanilang buhay at kultura.

Talatanungan (Questionnaire) – Instrumento na ginagamit sa pangangalap ng datos kung saan sinasagutan ng mga respondente ang mga tanong kaugnay ng pag-aaral.

Methods

Disenyo ng Pananaliksik

Ang pag-aaral na ito ay gagamit ng deskriptibong disenyo ng pananaliksik (descriptive research design)**.** Layunin nitong ilarawan at suriin ang antas ng interes ng mga mag-aaral sa sekondarya sa pag-aaral ng Panitikang Filipino batay sa paggamit ng interactive learning activities.

Mga Respondente ng Pag-aaral

Ang mga respondente ng pag-aaral na ito ay ang mga pili na mga mag-aaral sa sekondarya mula ika-7 na baitang hanggang sa ika-10 na baitang sa Naile National High

School sa taong panuruan 2026–2027**.** Sila ay pipiliin gamit ang purposive sampling na pamantayan ng mananaliksik. Ang mga respondente ay inaasahang makapagbibigay ng tapat na sagot tungkol sa kanilang antas ng interes sa Panitikang Filipino.

Instrumento ng Pananaliksik

Ang pangunahing instrumento na gagamitin sa pag-aaral na ito ay ang talatanungan (survey questionnaire). Ito ay binubuo ng mga pahayag na sumasaklaw sa antas ng interes ng mga mag-aaral sa Panitikang Filipino batay sa paggamit ng *interactive learning activities*. Ang mga aytem ay sasagutin gamit ang Likert scale upang masukat ang antas ng kanilang pagsang-ayon o interes.

Bago ito gamitin sa aktuwal na pangangalap ng datos, ang talatanungan ay sumailalim sa content validation ng mga eksperto sa larangan ng edukasyon at pananaliksik upang matiyak ang pagiging angkop, malinaw, at kaugnay ng bawat aytem sa layunin ng pag-aaral. Ang kanilang mga mungkahi at rekomendasyon ay isinama sa rebisyon ng instrumento upang higit na mapahusay ang nilalaman at matiyak ang bisa (validity) nito.

Pamamaraan sa Pangangalap ng Datos

Matapos maaprubahan ang panukalang pananaliksik, ang mga mananaliksik ay magsasagawa ng sistematikong pangangalap ng datos upang matiyak ang katumpakan at pagiging mapagkakatiwalaan ng mga impormasyong makakalap.

Una, hihingi ang mga mananaliksik ng pahintulot mula sa Punongguro ng Naile National High School upang maisagawa ang pag-aaral. Matapos ang pag-apruba, magsusumite rin sila ng liham sa mga gurong may hawak ng mga piling seksyon upang humingi ng pahintulot sa pagsasagawa ng sarbey sa kanilang mga mag-aaral.

Ikalawa, ihahanda at ipapasuri sa tagapayo at mga eksperto ang talatanungan (research questionnaire) upang matiyak ang validity at reliability nito. Isasagawa rin ang pilot testing sa mga mag-aaral na hindi kabilang sa aktuwal na mga respondente upang matukoy ang kalinawan ng mga tanong at ang pagiging angkop ng instrumento. Ang resulta ng pilot testing ay gagamitin sa pagrebisa ng talatanungan bago ito gamitin sa aktuwal na pangangalap ng datos.

Ikatlo, ipaliliwanag ng mga mananaliksik sa mga respondente ang layunin ng pag-aaral, ang kahalagahan ng kanilang pakikilahok, at ang kanilang mga karapatan bilang kalahok. Hihingi rin ng informed consent mula sa mga mag-aaral at, kung kinakailangan, sa kanilang mga magulang o tagapag-alaga. Bibigyang-diin na ang kanilang paglahok ay boluntaryo at maaari silang tumangging sumagot o umatras sa pag-aaral anumang oras nang walang anumang kaparusahan. 144stratehiya1441441440, ipamamahagi ang talatanungan sa mga piling mag-aaral ng Naile National High School na 144strat gamit ang naaangkop na sampling technique. Sasagutan ng mga respondente ang talatanungan sa loob ng itinakdang oras habang ginagabayan ng mga mananaliksik upang matiyak na

nauunawaan nila ang bawat panuto. Agad na kokolektahin ang mga natapos na talatanungan upang maiwasan ang pagkawala o pagkasira ng mga datos.

Matapos makolekta ang lahat ng talatanungan, susuriin ang bawat isa upang matiyak na kumpleto at wasto ang mga sagot. Ang mga datos ay ioorganisa, ita-tabulate, at ie-encode sa isang spreadsheet o statistical software para sa pagsusuri. Gagamitin ang frequency, percentage, at weighted mean upang mailarawan ang profayl ng mga respondente, matukoy ang antas ng paggamit ng Interactive Learning Activities, at masukat ang antas ng interes ng mga mag-aaral sa Panitikang Filipino.

Sa buong proseso ng pangangalap ng datos, mahigpit na pangangalagaan ang pagiging kompidensiyal (confidentiality) at privacy ng mga respondente. Ang lahat ng impormasyong makakalap ay gagamitin lamang para sa layunin ng pananaliksik at hindi ilalantad ang pagkakakilanlan ng sinumang kalahok. Ang mga nakalap na datos ay ligtas na itatago at sisirain pagkatapos makumpleto ang pag-aaral, alinsunod sa umiiral na mga patakaran sa etikal na pananaliksik.

Statistical Treatment of Data

Upang masuri at mabigyang-kahulugan ang mga datos na makakalap sa pag-aaral na pinamagatang "Antas ng Interes ng mga Mag-aaral sa Sekondarya ng Naile National High School sa Panitikang Filipino Batay sa Paggamit ng Interactive Learning Activities," gagamitin ang mga sumusunod na istatistikal na pamamaraan:

1. Frequency at Percentage

Gagamitin ang frequency at percentage upang mailarawan ang profayl ng mga respondente batay sa kanilang demograpikong katangian, tulad ng edad, kasarian, 145strate, at iba pang kaugnay na impormasyon. Ang frequency ay tumutukoy sa bilang ng mga respondente sa bawat kategorya, samantalang ang percentage ay nagpapakita ng katumbas na bahagdan ng 145strateh bilang ng mga respondente.

- **P** = percentage
- **f** = frequency
- **N** = 145strateh bilang ng respondente

$$\text{Percentage} = \frac{f}{N} \times 100$$

2. Weighted Mean

Gagamitin ang Weighted Mean upang matukoy ang antas ng paggamit ng Interactive Learning Activities at ang antas ng interes ng mga mag-aaral sa Panitikang Filipino batay sa kanilang mga tugon sa talatanungan. Ang Weighted Mean ay angkop sa pagsusuri ng mga datos na gumagamit ng Likert Scale, sapagkat ipinapakita nito ang pangkalahatang antas ng mga tugon ng mga respondente.
Pormula:

$$\text{Weighted Mean} = \frac{\sum(f \times x)}{n}$$

Kung saan:

- **WM** = weighted mean
- **f** = frequency
- **x** = katumbas na bigat ng sagot
- **N** = 146strateh respondente

Limang Antas ng Interpretasyon (5-Point Likert Scale)

Weighted Mean	Scale	Verbal Interpretation
4.21 – 5.00	5	Napakataas
3.41 – 4.20	4	Mataas
2.61 – 3.40	3	Katamtaman
1.81 – 2.60	2	Mababa
1.00 – 1.80	1	Napakababa

Results and Discussion

Inilalahad sa kabanatang ito ang presentasyon, pagsusuri, at interpretasyon ng mga datos na nakalap mula sa mga respondente ng pag-aaral. Ang mga nakuhang impormasyon ay inayos, sinuri, at binigyang-kahulugan upang masagot ang mga suliraning itinakda sa pananaliksik. Ang mga resulta ay ipinakita sa pamamagitan ng mga talahanayan at kaukulang pagpapaliwanag upang maipakita ang mahahalagang natuklasan ng pag-aaral. Ang pagsusuri at interpretasyon ng mga resulta ang magsisilbing batayan sa pagbuo ng konklusyon at rekomendasyon ng pag-aaral na ilalahad sa susunod na kabanata.

Talahanayan 1. *Propayl ng respondent batay sa Edad at Kasarian.*

Baryabol	Kategorya	Frequency (f)	Percentage (%)
Edad	12	28	23.33
	13	26	21.67
	14	31	25.83
	15	30	25.00
	16	4	3.33
	21	1	0.83
	Kabuuan	120	100.00
Kasarian	Lalaki	63	52.50
	Babae	57	47.50
	Kabuuan	120	100.00

Makikita sa Talahanayan 1 na may kabuuang 120 respondente na lumahok sa pag-aaral. Sa usapin ng edad, ang pinakamaraming respondente ay nasa edad na 14 na may 31 (25.83%), sinundan ng edad na 15 na may 30 (25.00%), edad na 12 na may 28

(23.33%), at edad na 13 na may 26 (21.67%). Samantala, kakaunti lamang ang nasa edad na 16 na may 4 (3.33%) at edad na 21 na may 1 (0.83%).

Sa kasarian, mas maraming lalaki na may 63 (52.50%) kaysa sa 57 (47.50%) na babae. Ipinapakita nito na halos balanseng representasyon ng kasarian ang nakilahok sa pag-aaral, bagama't bahagyang mas marami ang mga lalaking respondente. Ang distribusyong ito ay nagpapakita ng sapat na representasyon ng mga kalahok mula sa iba't ibang 147strate ng Junior High School, kaya ang mga datos na nakalap ay maaaring maging mapagkakatiwalaang batayan sa pagsusuri ng mga resulta ng pag-aaral.

Talahanayan 2. *Antas ng interes ng mga mag-aaral sa Panitikang Filipino batay sa paggamit ng Interactive Learning Activities.*

Pahayag	Mean	Interpretib Deskripsyon
1. Interesado akong magbasa ng mga akdang pampanitikan sa Filipino	4.31	Napakataas
2. Nasisiyahan ako sa pagtatalakay ng mga kuwento, tula, at dula.	4.05	Mataas
3. Nakikita ko ang kahalagahan ng panitikang Filipino sa aking buhay.	4.53	Napakataas
4. Aktibo akong nakikilahok sa mga talakayan tungkol sa panitikang Filipino	4.16	Mataas
5. Nais kong matuto pa ng iba't ibang akdang pampanitikan.	4.38	Napakataas
Kabuuan	**4.29**	**Napakataas**

Ang Talahanayan 2 ay nagpapakita ng antas ng interes ng mga mag-aaral sa Panitikang Filipino batay sa paggamit ng Interactive Learning Activities. Sinukat ang interes ng mga respondente gamit ang limang 147strate na may limang antas ng pagtugon. Ang 147strateh mean ay 4.29, na may interpretatibong deskripsyong Napakataas, na nagpapahiwatig na ang paggamit ng Interactive Learning Activities ay nakatulong sa pagpapaigting ng interes ng mga mag-aaral sa pag-aaral ng Panitikang Filipino.

Batay sa talahanayan , ang 147strate na "Nakikita ko ang kahalagahan ng panitikang Filipino sa aking buhay" ang may pinakamataas na mean na 4.53, na may interpretatibong deskripsyong Napakataas. Ipinakikita nito na sa pamamagitan ng Interactive Learning Activities, higit na naunawaan ng mga mag-aaral ang kabuluhan ng panitikang Filipino bilang bahagi ng kanilang pagkakakilanlan, kultura, at pang-araw-araw na pamumuhay. Ang resulta ay nagpapahiwatig na 147strate 147stratehiya147 at makaugnay sa kanilang karanasan ang mga isinagawang gawain sa klase.

Sumunod dito ang 147strate na "Nais kong matuto pa ng iba't ibang akdang pampanitikan" na may mean na 4.38 (Napakataas), na nagpapakita ng mataas na pagnanais ng mga mag-aaral na mapalawak pa ang kanilang kaalaman sa iba't ibang anyo ng panitikang Filipino. Ipinahihiwatig nito na ang mga interactive na gawain ay

nakapagbigay ng motibasyon at kuryosidad upang higit pang tuklasin ang iba pang akdang pampanitikan.

Ang 148strate na "Interesado akong magbasa ng mga akdang pampanitikan sa Filipino" ay nakakuha rin ng mataas na mean na 4.31 (Napakataas). Ipinakikita nito na ang paggamit ng iba't ibang Interactive Learning Activities ay 148strate epektibo sa pagpapataas ng interes ng mga mag-aaral sa pagbabasa ng mga akdang pampanitikan, sa halip na umasa lamang sa tradisyunal na paraan ng pagtuturo.

Samantala, ang 148strate na "Aktibo akong nakikilahok sa mga talakayan tungkol sa panitikang Filipino" ay nagtamo ng mean na 4.16, habang ang "Nasisiyahan ako sa pagtatalakay ng mga kuwento, tula, at dula" ay may mean na 4.05. Bagama't kapwa may interpretasyong Mataas, sila ang may pinakamababang mean sa limang 148strate. Ipinahihiwatig nito na may ilang mag-aaral na maaaring nangangailangan pa ng higit na paghikayat upang maging mas aktibo sa mga talakayan at mapataas pa ang kanilang kasiyahan sa pagtalakay ng iba't ibang akdang pampanitikan.

Sa kabuuan, ang grand mean na 4.29 (Napakataas) ay nagpapakita na ang paggamit ng Interactive Learning Activities ay may positibong impluwensya sa interes ng mga mag-aaral sa Panitikang Filipino. Ipinahihiwatig ng resulta na ang mga estratehiyang ito ay hindi lamang nakapagpapataas ng interes sa pagbabasa at pag-aaral ng panitikan 148stra nakatutulong din sa pagpapahalaga ng mga mag-aaral sa kahalagahan ng panitikang Filipino at sa paglinang ng kanilang aktibong partisipasyon sa proseso ng pagkatuto. Ang resulta ay sumusuporta sa 148strate na ang mga makabago at interaktibong pamamaraan ng pagtuturo ay nakapagpapalalim ng motibasyon, pakikilahok, at pagkatuto ng mga mag-aaral sa asignaturang Filipino.

Talahanayan 3. *Antas ng paggamit ng Interactive Learning Activities sa pagtuturo ng Panitikang Filipino.*

Pahayag	Mean	Interpretib Deskripsyon
1. Gumagamit ang aming guro ng mga interaktibong Gawain tulad ng educational games, role-playing, at pangkatang gawain.	4.63	Napakataas
2. Nakatutulong ang mga interaktibong gawain tulad ng educational games at role-playing upang higit kong maunawaan ang aralin.	4.30	Napakaas
3. Mas nagiging kawili-wili ang klase dahil sa mga interaktibong gawain.	4.53	Napakataas
4. Mas epektibo akong natututo sa pamamagitan ng mga gawaing ito.	4.60	Napakataas
5. Natuto ako nang mas epektibo sa pamamagitan ng gawain na ito.	4.63	Napakataas
Kabuuan	**4.54**	**Napakataas**

Ang Talahanayan 3 ay nagpapakita ng antas ng paggamit ng Interactive Learning Activities sa pagtuturo ng Panitikang Filipino batay sa persepsyon ng mga mag-aaral.

Makikita sa talahanayan na ang 149strateh mean ay 4.54, na may interpretatibong deskripsyong Napakataas. Ipinahihiwatig nito na madalas at epektibong ginagamit ng mga guro ang iba't ibang Interactive Learning Activities sa pagtuturo ng Panitikang Filipino, na nagiging daan upang maging mas 149stratehiya149 at kawili-wili ang karanasan sa pagkatuto ng mga mag-aaral.

Batay sa talahanayan, ang mga 149strate na "Gumagamit ang aming guro ng mga interaktibong gawain tulad ng educational games, role-playing, at pangkatang gawain" at "Natuto ako nang mas epektibo sa pamamagitan ng gawain na ito" ang parehong nagtamo ng pinakamataas na mean na 4.63, na may interpretatibong deskripsyong Napakataas. Ipinakikita nito na kinikilala ng mga mag-aaral ang regular na paggamit ng kanilang guro ng mga Interactive Learning Activities at naniniwala silang nakatutulong ang mga ito upang higit na maging epektibo ang kanilang pagkatuto sa Panitikang Filipino.

Kasunod nito ang 149strate na "Mas epektibo akong natututo sa pamamagitan ng mga gawaing ito" na may mean na 4.60, na may interpretasyong Napakataas. Ipinahihiwatig nito na ang mga interaktibong 149stratehiya ay nagiging mahalagang kasangkapan upang mapadali ang pag-unawa ng mga mag-aaral sa mga aralin at mapalalim ang kanilang pagkatuto. Ang resulta ay nagpapakita na ang aktibong partisipasyon sa iba't ibang gawain ay nagdudulot ng mas mataas na antas ng pagkatuto kumpara sa tradisyunal na pamamaraan.

Samantala, ang 149strate na "Mas nagiging kawili-wili ang klase dahil sa mga interaktibong gawain" ay nagtamo ng mean na 4.53, na may interpretasyong Napakataas. Ipinahihiwatig nito na ang paggamit ng iba't ibang gawain tulad ng educational games, role-playing, at pangkatang gawain ay nakatutulong upang mapanatili ang interes at motibasyon ng mga mag-aaral sa loob ng klase. Nagiging mas masigla at makahulugan ang proseso ng pagtuturo at pagkatuto dahil sa aktibong partisipasyon ng mga mag-aaral.

Ang 149strate 149strat "Nakatutulong ang mga interaktibong gawain tulad ng educational games at role-playing upang higit kong maunawaan ang aralin" ay nakakuha ng mean na 4.30, na bagama't pinakamababa sa limang 149strate, ay mayroon pa ring interpretasyong Napakataas. Ipinahihiwatig nito na bagama't lubos na kinikilala ng mga mag-aaral ang naidudulot ng Interactive Learning Activities sa kanilang pagkatuto, may ilan pa ring pagkakataon na maaaring mapahusay pa ang pagpili at pagdidisenyo ng mga gawaing naaayon sa kanilang pangangailangan at antas ng pagkatuto.

Sa kabuuan, ang grand mean na 4.54 (Napakataas) ay nagpapakita na ang Interactive Learning Activities ay malawakang ginagamit at itinuturing na napakaepektibong 149stratehiya sa pagtuturo ng Panitikang Filipino. Ang resulta ay nagpapahiwatig na ang mga gawaing ito ay nakapagpapataas ng interes, pakikilahok, at pag-unawa ng mga mag-aaral sa mga aralin. Higit pa rito, pinatutunayan ng mga natuklasan na ang paggamit ng makabago at interaktibong pamamaraan sa pagtuturo ay nakatutulong sa paglikha ng isang aktibo, 149stratehiya149, at learner-centered na kapaligiran sa pagkatuto, na nagreresulta sa mas mataas na antas ng akademikong pakikilahok at pagkatuto ng mga mag-aaral.

Modelo ng Interactive Learning Activities

Ipinapakita ng modelo na ang Interactive Learning Activities ang nagsisilbing pangunahing salik na nagpapataas ng aktibong pakikilahok ng mga mag-aaral. Ang aktibong pakikilahok na ito ay nagdudulot ng mas mataas na pag-unawa sa mga aralin at mas mataas na interes sa Panitikang Filipino, na sa huli ay humahantong sa pagpapahalaga sa Panitikang Filipino at mas epektibong pagkatuto ng mga mag-aaral. Dahil dito, ipinakikita ng modelo na ang paggamit ng mga interaktibong 150stratehiya sa pagtuturo ay isang mabisang paraan upang mapahusay ang kalidad ng pagkatuto sa asignaturang Filipino.

Lagom

Isinagawa ang pag-aaral na ito upang matukoy ang antas ng interes ng mga mag-aaral sa Panitikang Filipino batay sa paggamit ng Interactive Learning Activities at ang antas ng paggamit ng mga gawaing ito sa pagtuturo ng asignatura. Gumamit ang mananaliksik ng 150stratehiya150150 pamamaraan ng pananaliksik at nagsarbey sa 120 mag-aaral bilang mga respondente.

Batay sa propayl ng mga respondente, karamihan sa kanila ay nasa edad na 14 na taong gulang, na sinundan ng mga nasa edad na 15, 12, at 13. Kakaunti lamang ang mga respondenteng nasa edad na 16 at 21. Sa kasarian, bahagyang mas marami ang mga lalaking respondente kaysa sa mga babae, ngunit maituturing pa ring halos 150strate ang representasyon ng dalawang kasarian.

Natuklasan din na ang antas ng interes ng mga mag-aaral sa Panitikang Filipino ay Napakataas, na may 151strateh mean na 4.29. Pinakamataas ang pagpapahalaga ng mga mag-aaral sa kahalagahan ng panitikang Filipino sa kanilang buhay, habang mataas din ang kanilang kagustuhang matuto ng iba pang akdang pampanitikan at interes sa pagbabasa. Bagama't mataas pa rin ang kanilang kasiyahan sa talakayan at aktibong pakikilahok sa klase, ito ang nakapagtala ng pinakamababang mean sa mga 151strate.

Samantala, ang antas ng paggamit ng Interactive Learning Activities sa pagtuturo ng Panitikang Filipino ay nakapagtala rin ng Napakataas na antas, na may 151strateh mean na 4.54. Lumabas sa resulta na madalas gamitin ng mga guro ang iba't ibang interaktibong estratehiya tulad ng educational games, role-playing, at pangkatang gawain. Ipinakita rin ng mga mag-aaral na ang mga gawaing ito ay nakatutulong upang maging mas kawili-wili ang klase, higit nilang maunawaan ang mga aralin, at maging mas epektibo ang kanilang pagkatuto.

Sa kabuuan, ipinakita ng pag-aaral na ang paggamit ng Interactive Learning Activities ay positibong tinatanggap ng mga mag-aaral at nakapag-aambag sa mataas na antas ng kanilang interes at pakikilahok sa pag-aaral ng Panitikang Filipino.

Konklusyon

Batay sa mga natuklasan ng pag-aaral, nabuo ang sumusunod na mga konklusyon:

1. Ang Interactive Learning Activities ay nagsisilbing mabisang estratehiya sa paglikha ng isang aktibo at makabuluhang kapaligiran sa pagkatuto ng Panitikang Filipino, sapagkat nagiging mas kawili-wili at makabuluhan ang mga aralin para sa mga mag-aaral.
2. Ang mataas na antas ng interes ng mga mag-aaral ay nagpapakita na ang mga interaktibong gawain ay nakatutulong hindi lamang sa paglinang ng kanilang kaalaman kundi pati sa pagpapahalaga nila sa Panitikang Filipino bilang bahagi ng kanilang kultura at pagkakakilanlan.
3. Bagama't mataas ang antas ng pakikilahok ng mga mag-aaral, may pagkakataon pang mapahusay ang kanilang aktibong partisipasyon sa mga talakayan at iba pang gawaing pampanitikan sa pamamagitan ng mas iba-iba at kolaboratibong estratehiya sa pagtuturo.
4. Ipinakikita ng resulta na ang learner-centered na pamamaraan, gaya ng Interactive Learning Activities, ay nakapagpapataas ng motibasyon at kalidad ng pagkatuto ng mga mag-aaral sa asignaturang Filipino.

Rekomendasyon

Batay sa mga konklusyon, inirerekomenda ang sumusunod:

1. Sa mga guro ng Filipino, ipagpatuloy at higit pang pagyamanin ang paggamit ng iba't ibang Interactive Learning Activities tulad ng educational games, role-playing, simulation, collaborative learning, at iba pang makabagong estratehiya upang mapanatili ang mataas na interes at motibasyon ng mga mag-aaral.

2. Sa mga administrador ng paaralan, magsagawa ng mga seminar, training, at Learning Action Cell (LAC) sessions na nakatuon sa pagbuo at epektibong paggamit ng mga Interactive Learning Activities upang higit pang mapalakas ang kakayahan ng mga guro sa makabagong pagtuturo.

3. Sa mga mag-aaral, hinihikayat silang maging mas aktibong kalahok sa mga talakayan, pangkatang gawain, at iba pang gawaing pampanitikan upang higit pang mapaunlad ang kanilang pag-unawa, kasanayan sa komunikasyon, at pagpapahalaga sa Panitikang Filipino.

4. Sa mga susunod na mananaliksik, magsagawa ng kaugnay na pag-aaral na gumagamit ng mas malawak na saklaw ng mga kalahok, iba pang antas ng paaralan, o eksperimental na disenyo upang higit pang mapagtibay ang bisa ng Interactive Learning Activities sa pagtuturo ng Panitikang Filipino at iba pang asignatura.

Sanggunian

Ai, Y., Hu, Y., & Zhao, W. (2024). Interactive learning: Harnessing technology to alleviate foreign language anxiety in foreign literature education. Interactive Learning Environments.

Buenaflor, A. (2024). Araling Panlipunan Game-based Interactive Learning Activity: Boosting the Learning Attitudes of the Students. International Journal of Research and Innovation in Social Science.

Chandran, M., & Ismail, H. H. (2024). The Impacts of Gamification on Student Engagement and Learning Outcomes in Literature in Education: A Literature Review. International Journal of Academic Research in Business and Social Sciences.

Gonzales, L. A. A. (2024). Enhancing Literary Comprehension Through Interactive Reading Assignment via Kahoot!

Jose, A., & Escote, M. J. (2024). Technology-Based Instruction and Motivated Learning Strategies as Predictor of Student Engagement in Araling Panlipunan. Psychology and Education: A Multidisciplinary Journal.

Puspita, L., Rozi, F., Subali, B., & Ellianawati. (2025). Interactive Learning Innovations to Build Student Learning Activity: A Literature Review (2020–2025).

Requilme, C. (2024). Interactive Reading-Aloud Strategy (IRAS) in Enhancing Reading Literacy: An Intervention Plan.

Rosero, V. P., et al. (2024). Interactive Games for Meaningful Learning in the Area of Language and Literature.

Tiamson, J. M., Cawayan, J., Doctora, M. A., Pantinople, R., Villanueva, N. M., Templa, E., & Efondo, R. Jr. (2024). The Perceived Influence of Interactive Teaching Method and Technological Integration on Student Engagement of Junior High School in English Subject. Psychology and Education: A Multidisciplinary Journal.

Tiamson, J. M., et al. (2024). The Perceived Influence of Interactive Teaching Method and Technological Integration on Student Engagement of Junior High School in English Subject.

THE RELATIONSHIP BETWEEN THE LEVEL OF COMPETENCE IN OUTCOMES-BASED EDUCATION AND LEVEL OF COMPLIANCE WITH OBE SYLLABUS STANDARDS AMONG HIGHER EDUCATION FACULTY MEMBERS: BASIS FOR AN OBE SYLLABUS ENHANCEMENT FRAMEWORK

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Abstract

Outcomes-Based Education (OBE) has increasingly shaped higher education by emphasizing learning outcomes, competency development, constructive alignment, and coherence among curriculum, instruction, and assessment. As a systemic framework, OBE extends beyond individual faculty competence and involves the interaction of institutional structures, curriculum processes, and quality assurance mechanisms. This study examined faculty competence in OBE, compliance with OBE syllabus standards, and the relationship between these variables among 75 faculty members in a higher education institution. Guided by OBE and constructive alignment, the study employed a quantitative descriptive-correlational design using a structured questionnaire. Descriptive statistics determined the levels of faculty competence and syllabus compliance, while Pearson Product-Moment Correlation examined their relationship. Results showed that faculty members were Highly Competent in OBE ($M = 3.31$, $SD = 0.30$), while OBE syllabus compliance was likewise Highly Compliant ($M = 3.72$, $SD = 0.31$). Assessment and Evaluation obtained the highest rating among the competence dimensions ($M = 3.39$), whereas Constructive Alignment obtained the highest rating among the syllabus compliance dimensions ($M = 3.74$). However, faculty competence and syllabus compliance had a very weak positive and non-significant relationship ($r = 0.125$, $p = 0.286$). The finding suggests that individual faculty competence does not necessarily correspond to higher formal syllabus compliance. From a systemic OBE perspective, implementation may depend not only on faculty capability but also on curriculum structures, institutional standards, academic coordination, and quality assurance processes. Thus, OBE may be understood as a system in which faculty competence is an important component but not the sole determinant of effective curriculum implementation.

Keywords: Faculty Competence, Higher Education, Outcomes-Based Education, Syllabus Compliance, Constructive Alignment

Introduction

Higher education has increasingly adopted Outcomes-Based Education (OBE) as an approach for organizing educational programs around clearly defined learning outcomes and competencies. Rather than focusing primarily on content coverage, OBE emphasizes what learners are expected to know, demonstrate, and apply at the end of an educational experience. This orientation requires coherence among intended learning outcomes, teaching-learning activities, assessment, and the broader curriculum. Rao (2020) described OBE as an approach in which educational processes are organized around clearly specified outcomes, while Syeed et al. (2022) emphasized that OBE involves interconnected processes extending from the identification of outcomes to teaching, assessment, and continuous improvement.

The implementation of OBE, however, requires more than the presence of outcome statements in curriculum documents. Faculty members play an important role in translating educational outcomes into classroom practice. Their understanding of OBE principles affects how they formulate learning outcomes, plan instruction, select learning activities, and design assessment tasks. Iqbal et al. (2020) emphasized faculty development as an important component of OBE implementation, while Tungpalan and Antalan (2021) reported that faculty perceptions and experiences are relevant to the implementation of outcomes-based approaches. Molano (2023) likewise highlighted the importance of addressing the gap between knowledge of OBE and its actual application.

At the curriculum level, OBE also requires alignment among intended outcomes, learning experiences, and assessment. This principle is commonly associated with constructive alignment, which positions curriculum components as interconnected rather than as independent elements. Ruge et al. (2019) noted that constructive alignment requires coherence among objectives, teaching and learning activities, and assessment. More recent studies have similarly emphasized curriculum mapping, alignment, and systematic assessment as important mechanisms for translating OBE principles into educational practice (Alam & Benaida, 2022; Hristov et al., 2023; Maffei et al., 2022).

In the context of higher education institutions, syllabus compliance represents one formal manifestation of OBE implementation. A syllabus provides a structured representation of course learning outcomes, content, learning activities, assessment methods, and their alignment. Consequently, a syllabus that demonstrates clear relationships among these elements may provide evidence that OBE principles have been incorporated into course design. Philippine studies have documented efforts of higher education institutions to align curricula and course requirements with OBE principles. Fernando (2021), for example, examined institutional compliance with OBE, while Miña et al. (2021) demonstrated the value of curriculum quality audits in examining outcomes-based curricular alignment.

Nevertheless, OBE implementation should not be viewed solely as an individual faculty responsibility. Institutional policies, curriculum development processes, quality assurance mechanisms, program leadership, faculty development, and established syllabus requirements may shape how OBE is enacted. Meneses et al. (2021) emphasized

the role of institutional curricular frameworks in adopting OBE, while Mistamiruddin and Nasri (2024) identified organizational and implementation challenges that may persist even when OBE principles are recognized. Mufanti et al. (2024) similarly reported that faculty understanding and confidence do not automatically eliminate challenges in implementation.

This systemic perspective provides an important context for examining the relationship between faculty competence and syllabus compliance. If faculty competence were the primary determinant of syllabus compliance, higher levels of competence might reasonably be expected to correspond with higher levels of compliance. However, syllabus development may also be influenced by institutional templates, curriculum review procedures, academic supervision, program-level coordination, and quality assurance requirements. Thus, examining the empirical relationship between faculty competence and syllabus compliance can provide insight into whether OBE implementation is primarily reflected at the individual level or whether it operates through broader institutional arrangements.

The present study therefore examined the level of faculty competence in OBE, the level of compliance with OBE syllabus standards, and the relationship between these two variables among higher education faculty members. Specifically, it sought to determine the competence of faculty members in terms of knowledge of OBE principles, curriculum planning and development, instructional planning and delivery, assessment and evaluation, and constructive alignment. It also examined syllabus compliance in terms of course learning outcomes, course content, teaching-learning activities, assessment methods, and constructive alignment. Finally, it determined whether a significant relationship existed between faculty competence and OBE syllabus compliance. The findings were intended to provide an empirical basis for an OBE Syllabus Enhancement Framework that considers both faculty capability and the institutional processes within which OBE is implemented.

Methods

Research Design

This study employed a quantitative descriptive-correlational research design to examine faculty competence in Outcomes-Based Education and compliance with OBE syllabus standards. The descriptive component was used to determine the level of faculty competence and the level of syllabus compliance, while the correlational component was used to determine whether a statistically significant relationship existed between the two variables. The design was appropriate because the study examined naturally occurring levels of competence and compliance without manipulating the variables.

Participants

The participants were 75 faculty members from a higher education institution. The respondents represented different academic programs and employment arrangements.

In terms of age, 33 respondents (44.00%) were 24–30 years old, while 31 (41.33%) were 31–40 years old. Ten respondents (13.33%) were 41–50 years old, and one (1.33%) was 61 years old or above. In terms of employment status, 56 (74.67%) were full-time faculty members, 12 (16.00%) were part-time, and 7 (9.33%) were contractual.

With regard to educational attainment, 43 respondents (57.33%) held a bachelor's degree, 15 (20.00%) had completed master's units, 13 (17.33%) had completed a master's degree, 3 (4.00%) had doctoral units, and 1 (1.33%) had completed a doctoral degree. Regarding teaching experience, 27 (36.00%) had 0–5 years of experience, 35 (46.67%) had 6–10 years, 12 (16.00%) had 11–15 years, and 1 (1.33%) had 21 or more years of teaching experience. The respondents represented a range of academic programs, including General Education, engineering, information systems, communication, tourism, accountancy, nursing, entrepreneurship, criminology, early childhood education, and technical-vocational teacher education.

Research Instrument

Data were collected through a structured questionnaire developed to measure two major variables: faculty competence in OBE and compliance with OBE syllabus standards. The competence component covered five dimensions: knowledge of OBE principles, curriculum planning and development, instructional planning and delivery, assessment and evaluation, and constructive alignment. The syllabus compliance component likewise covered five areas: course learning outcomes, course content, teaching-learning activities, assessment methods, and constructive alignment.

The instrument was designed around the principles of OBE and constructive alignment. The indicators examined whether faculty members demonstrated knowledge and application of outcomes-based principles and whether course syllabi reflected the expected relationships among outcomes, content, learning activities, and assessment. Responses were interpreted using the established scale for the study.

Data Gathering Procedure

Prior to data collection, appropriate permission was obtained from the concerned institutional authorities. The respondents were informed about the purpose and nature of the study and were invited to participate voluntarily. The questionnaire was administered electronically through Google Forms. The researchers ensured that respondents were provided with sufficient information regarding the study and that participation was not associated with academic or professional penalties.

After data collection, the responses were reviewed, organized, and prepared for statistical analysis. Respondent identities and unnecessary identifying information were not included in the analysis or research report. The collected data were used solely for the purposes of the study.

Ethical Considerations

The study observed ethical principles concerning informed consent, voluntary participation, privacy, confidentiality, respect for participants, responsible data handling, and honest reporting of findings. Respondents were informed that participation was voluntary and that they could withdraw without penalty or negative consequence. Their responses were treated confidentially, and unnecessary identifying information was excluded from the research report. Appropriate institutional permission was also secured before data gathering. The researchers reported the findings based on the actual data and did not fabricate, falsify, or manipulate responses.

Statistical Treatment

Descriptive statistics, particularly mean and standard deviation, were used to determine the levels of faculty competence and syllabus compliance. Pearson Product-Moment Correlation was used to examine the relationship between faculty competence in OBE and compliance with OBE syllabus standards. The level of statistical significance was set at 0.05. The null hypothesis stated that there was no significant relationship between faculty competence in OBE and compliance with OBE syllabus standards.

Results and Discussion

Faculty Competence in Outcomes-Based Education

The findings showed that faculty members were Highly Competent in Outcomes-Based Education, with an overall mean of 3.31 (SD = 0.30). As presented in Table 1, all five dimensions were rated Highly Competent. Assessment and Evaluation obtained the highest mean (M = 3.39, SD = 0.36), while Curriculum Planning and Development obtained the lowest mean (M = 3.27, SD = 0.37). The relatively small standard deviations across the dimensions indicate that the responses were generally close to their respective means.

Table 1

Overall Level of Faculty Competence in Outcomes-Based Education

Dimension	Mean	SD	Interpretation
Knowledge of OBE Principles	3.32	0.36	Highly Competent
Curriculum Planning and Development	3.27	0.37	Highly Competent
Instructional Planning and Delivery	3.29	0.35	Highly Competent
Assessment and Evaluation	3.39	0.36	Highly Competent
Constructive Alignment	3.3	0.36	Highly Competent

Overall	**3.31**	**0.30**	**Highly Competent**

The highest rating for Assessment and Evaluation suggests that faculty members demonstrated strong competence in practices involving the measurement of learning outcomes, establishment of performance criteria, monitoring of learner progress, and use of assessment results to improve instruction. The highest individual indicator was the use of clear criteria for evaluating learner performance (M = 3.48, SD = 0.50). This finding is consistent with the central role of assessment in OBE, where evidence of learner achievement provides a basis for determining whether intended outcomes have been attained (Adalla et al., 2022; Alonzo et al., 2023).

Although Curriculum Planning and Development obtained the lowest dimension mean, its rating remained Highly Competent. This may indicate that faculty members demonstrated strong OBE capability overall while curriculum-level planning represented a comparatively more demanding area of practice. Curriculum planning requires the coordination of outcomes, content, learning experiences, and assessment, processes that may extend beyond the individual faculty member and involve program and institutional structures (Alam & Benaida, 2022; Miña et al., 2021).

The results further indicate that faculty competence was relatively consistent across the five dimensions. The difference between the highest and lowest dimension means was only 0.12, suggesting that no single area substantially diverged from the general level of competence. The finding provides an indication that OBE principles were generally understood across knowledge, curriculum planning, instruction, assessment, and constructive alignment, while curriculum planning may remain an area for continued professional development.

Compliance with OBE Syllabus Standards

The respondents also demonstrated a Highly Compliant level of compliance with OBE syllabus standards, with an overall mean of 3.72 (SD = 0.31). Table 2 shows that all five dimensions were rated Highly Compliant. Constructive Alignment obtained the highest mean (M = 3.74, SD = 0.35), whereas Course Learning Outcomes obtained the lowest mean (M = 3.66, SD = 0.38).

Table 2

Overall Level of Compliance with OBE Syllabus Standards

Dimension	Mean	SD	Interpretation
Course Learning Outcomes	3.66	0.38	Highly Compliant
Course Content	3.73	0.35	Highly Compliant
Teaching-Learning Activities	3.72	0.34	Highly Compliant

Assessment Methods	3.73	0.35	Highly Compliant
Constructive Alignment	3.74	0.35	Highly Compliant
Overall	**3.72**	**0.31**	**Highly Compliant**

The high rating for Constructive Alignment indicates that the syllabi generally demonstrated coherence among learning outcomes, content, learning activities, and assessment methods. This finding reflects the principle that OBE implementation requires more than the inclusion of outcomes in course documents; the different components of the syllabus should work together toward the achievement of intended learning outcomes (Ruge et al., 2019; Hristov et al., 2023; Maffei et al., 2022). Similar emphasis has been placed on curriculum mapping and systematic alignment as mechanisms for ensuring coherence in outcomes-based curricular practice (Alam & Benaida, 2022).

The lowest dimension, Course Learning Outcomes, nevertheless remained Highly Compliant. The result suggests that the syllabi generally contained appropriate and measurable outcomes, although the formulation and presentation of course learning outcomes may provide an area for continued enhancement. Strengthening the clarity, measurability, and alignment of course learning outcomes may further support coherence among course content, learning activities, and assessment.

The relatively small difference among the five compliance dimensions also indicates consistency in syllabus implementation. The highest mean of 3.74 for Constructive Alignment and the lowest mean of 3.66 for Course Learning Outcomes differ by only 0.08. This suggests that the syllabi generally reflected the major components of OBE standards at comparable levels rather than showing substantial variation across dimensions.

The overall findings support the view that syllabus compliance is an important formal manifestation of OBE implementation. At the same time, compliance with established syllabus standards may reflect not only individual faculty decisions but also the institutional processes through which syllabi are prepared, reviewed, approved, and monitored. Thus, the high level of compliance provides an important context for interpreting the relationship between individual faculty competence and formal syllabus standards.

Relationship between Faculty Competence and OBE Syllabus Compliance

The relationship between faculty competence and compliance with OBE syllabus standards was examined using Pearson Product-Moment Correlation. The results are presented in Table 3.

Table 3

Relationship between Faculty Competence in OBE and Compliance with OBE Syllabus Standards

Table 3. Relationship between Faculty Competence in OBE and Compliance with OBE Syllabus Standards

Variables	Pearson r	p-value	Decision	Interpretation
Faculty Competence and OBE Syllabus Compliance	0.125	0.286	Fail to Reject H_0	Not Significant

As shown in Table 3, faculty competence and OBE syllabus compliance had a very weak positive relationship ($r = 0.125$). However, the relationship was not statistically significant ($p = 0.286$), which was greater than the 0.05 level of significance. Therefore, the null hypothesis was not rejected. The finding indicates that differences in faculty competence were not sufficiently associated with differences in syllabus compliance among the respondents.

The result is particularly noteworthy because both variables were rated highly. Faculty members were Highly Competent in OBE ($M = 3.31$), and OBE syllabus compliance was likewise Highly Compliant ($M = 3.72$); however, these two conditions did not demonstrate a statistically significant relationship. This suggests that faculty competence and formal syllabus compliance may represent related but analytically distinct dimensions of OBE implementation.

From a systemic OBE perspective, the finding may be understood in relation to the institutional processes within which faculty members operate. Syllabus compliance may be influenced not only by what faculty members know and are capable of doing but also by institutional templates, curriculum policies, program-level review, academic supervision, quality assurance mechanisms, and established requirements for course documentation. Thus, a highly competent faculty member may operate within an institutional system that provides substantial structures for syllabus development, while syllabus compliance may also be maintained through standardized processes that are not directly dependent on differences in individual competence.

This interpretation is consistent with studies emphasizing that OBE implementation involves institutional and organizational dimensions in addition to faculty understanding and practice (Fernando, 2021; Meneses et al., 2021; Mufanti et al., 2024; Mistamiruddin & Nasri, 2024). Mufanti et al. (2024), for example, emphasized that faculty understanding and confidence may coexist with continuing implementation challenges. Similarly, institutional curricular frameworks and quality-oriented curriculum review processes may contribute to the operationalization of OBE beyond the individual level (Meneses et al., 2021; Miña et al., 2021).

The present finding should not be interpreted as indicating that faculty competence is unimportant. Rather, the result indicates that, within the respondents and conditions examined, higher competence was not statistically associated with higher formal syllabus compliance. Because the study employed a bivariate correlational analysis, the finding does not establish causal relationships or determine whether institutional processes mediate or explain the relationship between the two variables. Instead, it provides empirical support for considering OBE implementation within a broader institutional context.

The findings therefore suggest that an OBE Syllabus Enhancement Framework may be more responsive when it integrates faculty capability with curriculum mapping, peer review, syllabus evaluation, program coordination, and institutional quality assurance. Such an approach recognizes that effective OBE implementation involves the interaction of individual faculty practices and the institutional structures that support, guide, and monitor curriculum implementation.

Obe Syllabus Enhancement Framework

Based on the findings of the study, an OBE Syllabus Enhancement Framework was proposed to provide a systematic approach to strengthening the development, review, implementation, and continuous improvement of OBE-aligned syllabi. The framework was grounded on two major findings: first, faculty members demonstrated a Highly Competent level of OBE competence ($M = 3.31$); and second, OBE syllabus compliance was likewise Highly Compliant ($M = 3.72$). Despite these favorable levels, the relationship between faculty competence and syllabus compliance was very weak and statistically non-significant ($r = 0.125$, $p = 0.286$). These findings suggest that syllabus enhancement should not rely exclusively on increasing individual faculty competence but should also address the institutional processes that support curriculum implementation.

Proposed OBE Syllabus Enhancement Framework

Based on the findings of the study, an OBE Syllabus Enhancement Framework was proposed to provide a systematic guide for strengthening the development, review, implementation, and continuous improvement of OBE-aligned syllabi. The framework was anchored on two major findings: faculty members demonstrated a Highly Competent level of OBE competence ($M = 3.31$), while OBE syllabus compliance was likewise Highly Compliant ($M = 3.72$). However, the relationship between faculty competence and syllabus compliance was very weak and statistically non-significant ($r = 0.125$, $p = 0.286$). This indicates that strengthening OBE syllabus implementation should not depend solely on faculty competence but should also consider institutional processes and academic support mechanisms.

Table 4

Proposed Syllabus Enhancement Framework

Core Dimension	Focus	Enhancement Mechanism	Expected Result
Outcomes Clarification	Clarity and alignment of course learning outcomes	CLO review, mapping, and validation	Clear and measurable learning outcomes
Curriculum and Content Alignment	Relevance and alignment of course content with intended outcomes	Content review and curriculum mapping	Relevant and outcome-aligned course content
Learning Design	Alignment of teaching-learning activities with intended outcomes	Outcome-based and learner-centered learning design	Appropriate and meaningful learning experiences
Assessment Alignment	Correspondence of assessment methods with intended outcomes	Assessment-to-outcome mapping and review	Appropriate evidence of learning outcome attainment
Continuous Quality Assurance	Sustainability and consistency of OBE implementation	Periodic review, monitoring, feedback, and revision	Continuously improved OBE syllabus
Supporting Mechanisms	Faculty capability and institutional support	Faculty development and institutional collaboration	Sustained and consistent OBE implementation

Note. The five core dimensions operate through a continuous Review–Enhance–Implement–Monitor–Improve (REIMI) cycle.

The framework consists of five interconnected components: Faculty OBE Capability, Outcomes and Curriculum Alignment, Syllabus Design and Review, Quality Assurance and Academic Coordination, and Continuous Improvement. These components are intended to function as a continuous cycle rather than as separate activities. Faculty development supports effective curriculum and outcomes alignment, which informs syllabus preparation and review. These processes are then reinforced through academic coordination and quality assurance, while feedback and evidence provide the basis for subsequent improvement.

The framework also gives particular attention to the areas identified in the findings. The relatively lower mean for Curriculum Planning and Development (M = 3.27) suggests the need to sustain faculty development in curriculum planning and practical OBE application. Meanwhile, the lower compliance mean for Course Learning Outcomes (M = 3.66) highlights the importance of continuously improving the clarity, measurability, relevance, and alignment of course outcomes. At the same time, the

relatively strong result for Constructive Alignment (M = 3.74) may be sustained through regular curriculum mapping and review.

Thus, the framework emphasizes that OBE syllabus enhancement is both a faculty and institutional responsibility. The non-significant relationship between faculty competence and syllabus compliance indicates that individual capability alone may not sufficiently explain the quality of syllabus implementation. Institutional review, academic coordination, quality assurance, feedback mechanisms, and continuous improvement should therefore complement faculty competence. The framework may serve as a practical guide for institutions in strengthening OBE syllabus development and may be adapted according to institutional policies, program requirements, disciplinary contexts, and applicable standards. Further validation and pilot implementation may be undertaken to examine its applicability in other higher education settings.

Conclusion

The study found that faculty members were Highly Competent in OBE, with an overall mean of 3.31, while compliance with OBE syllabus standards was also Highly Compliant, with an overall mean of 3.72. Assessment and Evaluation represented the highest area of faculty competence, whereas Constructive Alignment represented the highest area of syllabus compliance. These findings indicate that both faculty members and course syllabi demonstrated generally strong incorporation of OBE principles.

Despite these high levels, faculty competence and syllabus compliance showed only a very weak positive and statistically non-significant relationship ($r = 0.125$, $p = 0.286$). The result indicates that higher perceived competence was not significantly associated with higher syllabus compliance among the respondents. The finding highlights the distinction between individual faculty capability and formal curriculum implementation.

The study therefore supports a systemic understanding of OBE implementation. Faculty competence represents an important component, but it operates within broader institutional structures involving curriculum development, academic coordination, syllabus standards, and quality assurance. The findings consequently suggest that strengthening OBE implementation requires attention not only to faculty capability but also to the institutional processes through which curriculum and syllabus standards are developed, reviewed, implemented, and improved.

Implications and Recommendations

The findings have several implications for higher education institutions. First, faculty development programs may continue to strengthen OBE competence, with particular attention to curriculum planning and development, instructional planning and delivery, and constructive alignment. Training may emphasize not only conceptual understanding but also practical syllabus development, curriculum mapping, outcomes formulation, assessment design, and alignment review.

Second, academic programs and curriculum committees may strengthen systematic syllabus review through curriculum mapping, peer review, and program-level consultation. Such processes can help ensure that learning outcomes, content, teaching-learning activities, and assessment remain coherent and responsive to learner and disciplinary requirements. The emphasis on constructive alignment may also help institutions move beyond documentary compliance toward greater curricular coherence.

Third, quality assurance units and academic administrators may strengthen mechanisms for monitoring and improving OBE implementation. Since faculty competence and syllabus compliance were not significantly related, institutional processes deserve attention alongside faculty development. Periodic syllabus audits, documented feedback, peer consultation, curriculum review, and program-level monitoring may provide mechanisms for sustaining OBE alignment.

Fourth, institutions may improve coordination among faculty members, program heads, curriculum developers, and quality assurance personnel. OBE implementation may become more sustainable when faculty development and curriculum processes are treated as interconnected institutional activities. Clear roles, consistent standards, and opportunities for consultation may help connect individual teaching practices with broader curriculum expectations.

Finally, future researchers may examine other factors that could help explain variation in OBE implementation, including institutional support, workload, professional development, administrative supervision, curriculum development processes, quality assurance practices, and available resources. Qualitative or mixed-methods studies may provide deeper explanations of how faculty competence is translated—or not translated—into actual curriculum and syllabus practices. Studies involving larger and more diverse samples may also provide additional evidence regarding the relationship between faculty competence and formal OBE implementation.

References

Acenas, A. A., Concepcion, E., & Base, R. (2023). Redesigning outcomes-based mechanical engineering course syllabus using the constructive alignment approach. Journal of Interdisciplinary Perspectives, 1(1). https://ejournals.ph/article.php?id=20236

Adalla, M. J. T., Espinar, M. J. T., & Ballado, R. S. (2022). Outcomes-based education assessment practices of UEP collegiate faculty members: Basis for a training design. Asian Journal of Education and Social Studies, 29(1), 11–22. https://doi.org/10.9734/ajess/2022/v29i130687

Abejuela, H. J. M., Castillon, H. T., & Sigod, M. J. G. (2022). Constructive alignment of higher education curricula: The case of a Philippine state university. Asia Pacific Journal of Social and Behavioral Sciences, 20, 48–72. https://doi.org/10.57200/apjsbs.v20i0.288

Alam, T., & Benaida, M. (2022). Smart curriculum mapping and its role in outcome-based education. Informatica, 46(4), 557–566. https://doi.org/10.31449/inf.v46i4.3717

Alonzo, D., Bejano, J., & Labad, V. (2023). Alignment between teachers' assessment practices and principles of outcomes-based education in the context of Philippine education reform. International Journal of Instruction, 16(1), 489–506. https://doi.org/10.29333/iji.2023.16127a

Bhat, R., Raghavendra Kamath, C., Mathias, K. A., & Mulimani, P. (2022). Practical implementation of outcome-based education practices in the Indian engineering institutes—An objective approach-based investigation. Journal of Engineering Education Transformations, 36(1), 26–32. https://doi.org/10.16920/jeet/2022/v36i1/22133

Cahapay, M. B. (2021). The sources of outcomes in outcomes-based education curriculum development: A closer look. PUPIL: International Journal of Teaching, Education and Learning, 5(1). https://doi.org/10.20319/pijtel.2021.43.6276

Fernando, J. S. (2021). Compliance of higher education institutions to outcome-based education for the 21st century learners. IOER International Multidisciplinary Research Journal, 3(2), 226–236. https://doi.org/10.54476/iimrj304

Hristov, I., Nakov, B., & Miočinović, M. (2023). Constructive alignment between objectives, teaching and learning activities, student competencies and assessment methods in higher education. Journal of Agriculture and Plant Sciences, 21(2), 21–36. https://doi.org/10.46763/JAPS23212021h

Iqbal, S., Willis, I., Almigbal, T. H., Aldahmash, A., & Rastam, S. (2020). Outcome-based education: Evaluation, implementation and faculty development. MedEdPublish, 9, 121. https://doi.org/10.15694/mep.2020.000121.1

Maffei, A., Boffa, E., Lupi, F., & Lanzetta, M. (2022). On the design of constructively aligned educational unit. Education Sciences, 12(7), 438. https://doi.org/10.3390/educsci12070438

Meneses, J. L., Moreno, N. I., & Pachejo, S. J. (2021). College of Education curricular framework towards adoption of the Outcome-Based Education approach. Psychology and Education Journal, 58(5).

Miña, L. M., Bercasio, R. R. O., & Llenaresas, H. M. (2021). Outcomes-based curricular review of a graduate program using curriculum quality audit methodology. Bicol University R&D Journal, 24(1), 82–93. https://doi.org/10.47789/BU.R&D.J.20212401.05

Mistamiruddin, E., & Nasri, N. M. (2024). Challenges in integrating Outcome-Based Education (OBE) in higher education institutions: A systematic literature review. International Journal of Academic Research in Progressive Education and Development, 13(4). https://doi.org/10.6007/IJARPED/v13-i4/23378

Molano, T. (2023). Bridging the gap between knowledge and practice on the implementation of Outcomes-Based Education. Journal for Educators, Teachers and Trainers, 14(5), 122–134. https://doi.org/10.47750/jett.2023.14.05.016

Mufanti, R., Carter, D., & England, N. (2024). Outcomes-based education in Indonesian higher education: Reporting on the understanding, challenges, and support available to teachers. Social Sciences & Humanities Open, 9, 100873. https://doi.org/10.1016/j.ssaho.2024.100873

Rao, N. J. (2020). Outcome-based education: An outline. Higher Education for the Future, 7(1), 5–21. https://doi.org/10.1177/2347631119886418

Ruge, G., Tokede, O., & Tivendale, L. (2019). Implementing constructive alignment in higher education— Cross-institutional perspectives from Australia. Higher Education Research & Development, 38(4), 833–848. https://doi.org/10.1080/07294360.2019.1586842

Syeed, M. M., Shihavuddin, A. S. M., Uddin, M. F., Hasan, M., & Khan, R. H. (2022). Outcome based education (OBE): Defining the process and practice for engineering education. IEEE Access, 10, 119170–119192. https://doi.org/10.1109/ACCESS.2022.3219477

Tjandra, E., Ferdiana, R., & Kusumawardani, S. S. (2024). Strategic implementation of outcome-based education. Contemporary Educational Researches Journal, 14(2), 120–132. https://doi.org/10.18844/cerj.v14i2.9444

Tungpalan, K. A., & Antalan, M. F. (2021). Teachers' perception and experience on outcomes-based education implementation in Isabela State University. International Journal of Evaluation and Research in Education, 10(4), 1213–1220. https://doi.org/10.11591/ijere.v10i4.21548

DEVELOPMENT AND TEACHER VALIDATION OF AN ICT-BASED MODULE ON MONOHYBRID INHERITANCE IN GRADE 8 SCIENCE

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Abstract

Predicting genotype and phenotype ratios in monohybrid crosses is a difficult competency for Grade 8 learners, and teachers in under-resourced Philippine schools have few curriculum-aligned digital resources for teaching it. To develop GeneticaLearn, an ICT-based instructional module on monohybrid inheritance, and to determine how secondary science teachers evaluate its quality. A mixed-methods evaluation followed the ADDIE instructional design model. Thirty Grade 7–10 science teachers in the Division of Misamis Occidental, Philippines, recruited by convenience and purposive sampling, explored the module online or offline for four to five days and completed a 60-item instrument covering six quality dimensions (pilot Cronbach's α = .92), plus open-ended and guided feedback questions. Ratings were analyzed descriptively and commented on thematically, then integrated in a joint display. All six dimensions were rated Very Satisfactory (mean 3.73–3.93), with a grand mean of 3.84 (SD = 0.46), above the 3.50 classroom-readiness threshold. Alignment to the learning competency was rated highest (M = 3.93) and ICT integration and interactivity lowest (M = 3.73). No respondent selected the lowest rating category. Fourteen themes emerged; the most frequent were technology and technical difficulties (35.0%), pedagogical soundness (32.5%), and interactivity and engagement (30.0%). Teacher-validators judged GeneticaLearn suitable for classroom use. The lower ICT rating coincided with concerns about connectivity and devices rather than instructional design. The priority revisions include an expanded offline version, a facilitator's guide, features for accessibility and differentiation, more varied assessments, and additional local contexts. Student learning effects were not examined.

Keywords: ICT-based instructional module, monohybrid inheritance, genetics education, teacher validation, ADDIE model, mixed methods

Introduction

Genetics is a core component of secondary biology curricula worldwide, yet it is consistently reported as one of the most difficult topics for students. Learners must coordinate molecular, organismal, and probabilistic reasoning at the same time, and reviews of the literature describe recurring difficulties: confusing the terms *"gene" and "allele,"* assuming that dominant traits are necessarily the most common in a population, and misinterpreting the probabilistic logic of Punnett squares (Kim & Lee, 2023; Orozco

& Hernández, 2024). A frequently cited misconception is that a dominant allele "destroys" its recessive partner in a heterozygote, which makes the reappearance of recessive traits in later generations hard to explain (Kim & Lee, 2023). Correcting this idea appears to require visual representations that show each allele remaining intact and separate, not verbal explanation alone.

In the Philippines, the Department of Education's Most Essential Learning Competencies (MELCs) require Grade 8 learners to predict the genotype and phenotype ratios of offspring from monohybrid crosses involving dominant and recessive alleles (Department of Education [DepEd], 2020). National data suggest that this competency is poorly attained: only 43% of Grade 8 learners were reported to meet proficiency, compared with 65%–75% for other Grade 8 science competencies (DepEd, 2024). Teachers have reported a shortage of teaching resources aligned with the local curriculum, leading some to rely on materials developed abroad for other curricula (Reyes & Morales, 2023). The constraints are sharper in rural divisions such as Misamis Occidental, where limited laboratory facilities, large classes, restricted instructional time, and unreliable internet access favor text-centered instruction (DepEd, 2024).

Research in science education indicates that animations, simulations, and interactive tools can make abstract processes such as allele segregation visible and can improve conceptual understanding (Johnson et al., 2024; Zhang et al., 2024). The benefit, however, depends on how technology is embedded in instruction rather than on the technology itself (Anderson & Chen, 2024), and digital environments that combine several types of interactivities have been associated with larger effects (López-García & Martín-López, 2023). Philippine studies point in the same direction: teachers rated digital science materials more highly than printed ones for engagement and quality (Reyes & Morales, 2023), and students using interactive digital biology modules outperformed peers in traditional classes (Dela Cruz, 2021a, 2021b). A national comparison also reported higher genetics proficiency in schools that had integrated ICT into science teaching (72.3%) than in schools that had not (51.2%) (Tolentino, 2025), although such a comparison is descriptive and cannot establish that ICT caused the difference.

Taken together, this evidence shows a need for locally developed, curriculum-aligned digital materials for this competency that can also function in low-connectivity settings. Before testing such materials with learners, it is necessary to professionally assess their quality. Teacher evaluation is a recognized stage of instructional material development and mirrors the criteria applied in DepEd's Learning Resource Management and Development System (LRMDS), which considers content accuracy, curriculum alignment, pedagogical quality, and usability.

This study therefore developed GeneticaLearn, a self-paced ICT-based module on predicting genotypic and phenotypic ratios in monohybrid crosses, grounded in constructivist learning theory, the technology-enhanced learning (TEL) framework, and the framework of the Partnership for 21st Century Learning (P21, 2024). It addressed three research questions: (1) What ICT-based instructional material can be developed to address the Grade 8 competency of predicting genotype and phenotype ratios in

monohybrid crosses? (2) How do secondary science teachers rate the module on content quality and accuracy, alignment to the learning competency, pedagogical soundness, ICT integration and interactivity, support for 21st-century skills, and usability? (3) What qualitative feedback and revisions arise from the teachers' evaluations?

Methods

Research design

The study used a mixed-methods evaluation design (Creswell & Plano Clark, 2018) in which numerical ratings and narrative comments were collected in the same instrument, analyzed separately, and then integrated. The ratings show how teachers judged the module, and the comments help explain why. The module was developed following the ADDIE model (Branch, 2009), and the evaluation phase used a descriptive design (Fraenkel et al., 2012): variables were not manipulated, no comparison group was used, and no student outcomes were measured. Table 1 shows how each ADDIE phase was applied. In the implementation phase, the module was deployed to teacher validators for independent review, not to students.

Table 1

Application of the ADDIE Model in the Present Study

Phase	Application in this study
Analysis	Identification of learner needs, curriculum requirements under the Science 8 Budget of Work, and the specific genetics competency requiring instructional support design
Design	Formulation of learning objectives, content outline, and instructional strategies grounded in constructivist learning theory, the TEL framework, and the P21 framework
Development	Creation of multimedia content, the interactive Punnett square builder, scenario-based tasks, and formative assessments
Implementation	Deployment of the module to teacher-validators for independent review and exploration
Evaluation	Administration of the structured validation instrument, followed by quantitative and qualitative analysis of teachers' assessments

Setting and participants

The study was conducted in the Division of Misamis Occidental, Northern Mindanao, Philippines. Many schools in the division are rural, serve agricultural and coastal communities, and vary in internet connectivity and device access; the setting was chosen partly because the module's offline and low-bandwidth features were designed for such conditions.

Participants were 30 teacher-validators who taught science in Grades 7 to 10 in public or private secondary schools in the division and had at least two years of teaching

experience. Teachers were selected because their subject background, classroom experience, and familiarity with the K–12 curriculum and MELCs qualified them to judge scientific accuracy, classroom feasibility, and curriculum alignment. Recruitment combined convenience and purposive sampling: schools and teachers were included if they were accessible, willing to take part, and had the internet connectivity and device access needed to review the module. A sample of about 30 was targeted following Fraenkel et al. (2012). Public and private schools and teachers with varying levels of ICT experience were deliberately included to reduce selection bias, although the sample was not random. All 30 teachers completed the ratings and none were excluded.

The instructional module

GeneticaLearn was designed for the Grade 8 competency of predicting the genotypic and phenotypic ratios of offspring from monohybrid crosses involving dominant and recessive alleles. Its scope excluded dihybrid crosses, incomplete dominance, codominance, multiple alleles, and sex-linked traits, which lie outside the Science 8 Budget of Work. Design decisions were mapped to the three guiding frameworks: learning by doing through an interactive Punnett square, individualized entry points through a diagnostic pre-assessment, and metacognitive reflection through checklists (constructivism); purposeful use of animation and simulation linked to objectives and assessment (TEL); and activities targeting critical thinking, communication, collaboration, creativity, and digital literacy (P21).

Evaluation instrument

The Module Evaluation Instrument had three parts. Part A comprised 60 Likert-type items grouped into six dimensions: (a) content quality and accuracy, (b) alignment to the learning competency, (c) pedagogical soundness, (d) ICT integration and interactivity, (e) support for 21st-century skills development, and (f) usability and user-friendliness. Part B contained open-ended questions on the module's strengths, areas for revision, anticipated implementation challenges, needed resources, and suggested changes. Part C contained guided feedback questions.

The instrument was drafted from the theoretical frameworks and module evaluation criteria and reviewed by a panel of five experts (two science education researchers, two master teachers, and one ICT specialist), after which it was revised. It was then pilot-tested with 30 science teachers and showed high internal consistency (Cronbach's $\alpha = .92$).

Dimension scores were computed as weighted means of their items, and the grand mean as the average of the six-dimension means. Scores were interpreted using the scale in Table 2. A grand mean of 3.50 or higher was set in advance as the minimum for judging the module ready for classroom use in its current form.

Table 2

Scoring and Interpretation Scale

Mean range	Descriptive rating	Interpretation
4.50–5.00	Outstanding	Exceptional quality in this dimension; no revision needed
3.50–4.49	Very Satisfactory	Meets quality standards well; minor refinement may be considered
2.50–3.49	Satisfactory	Meets basic quality standards; moderate revision recommended
1.50–2.49	Fair	Notable weaknesses; substantial revision required
1.00–1.49	Poor	Does not meet quality standards; major revision or redevelopment needed

Procedure

Permission was obtained from school principals or division superintendents before recruitment. The researcher approached teachers, informed them of the study's purpose, explained that participation was voluntary and responses confidential, and requested their consent. Each teacher received access to GeneticaLearn through a shared link or, where connectivity was limited, an offline installation and was oriented to the module, typically by video call. Teachers then explored every component independently for four to five days before completing the instrument, either online (Google Form) or on paper. Completed instruments were collected in person or digitally and stored securely with access restricted to the researcher.

Data analysis

Ratings were analyzed descriptively using item, dimension, and grand means; standard deviations; and the distribution of responses across rating categories. Inferential tests were not used because the study aimed to describe a defined group's evaluation of the module rather than to test hypotheses about a population or compare groups. Open-ended and guided responses were analyzed by thematic analysis following the six phases of Braun and Clarke (2006): familiarization, initial coding, searching for themes, reviewing themes, defining and naming themes, and reporting. One response could be assigned to more than one theme. Quantitative and qualitative results were then integrated in a joint display that aligned each rating dimension with its related theme. Microsoft Excel and SPSS were used for analysis.

Ethical considerations

Data collection followed institutional permission and informed consent procedures. Participation was voluntary, and no identifying information is reported.

Results

The developed module (Research Question 1)

The development process produced GeneticaLearn, a self-paced module available in online and offline formats. It includes a diagnostic pre-assessment that identifies prior knowledge and misconceptions; animated visualizations of allele segregation; an interactive virtual Punnett square builder for exploring how parental alleles produce genotype and phenotype ratios; scenario-based tasks set in Filipino contexts; self-monitoring checklists after each lesson; and a culminating creative challenge in which learners create their own genetic scenario and Punnett square. Separate student and teacher versions were prepared.

Teachers' ratings (Research Question 2)

Table 3 and Figure 1 present the ratings. All six dimensions fell in the Very Satisfactory range (means 3.73–3.93), and the grand mean was 3.84 (SD = 0.46), above the 3.50 readiness threshold. Alignment to the learning competency had the highest mean (M = 3.93, SD = 0.49), followed by support for 21st-century skills (M = 3.88, SD = 0.41), content quality and accuracy (M = 3.84, SD = 0.48), usability and user-friendliness (M = 3.83, SD = 0.42), and pedagogical soundness (M = 3.80, SD = 0.43). ICT integration and interactivity had the lowest mean (M = 3.73) and the widest spread (SD = 0.52).

Table 3

Teachers' Ratings of GeneticaLearn by Evaluation Dimension (N = 30)

Dimension	M	SD	Interpretation	Ratings in top two categories (%)
Alignment to Learning Competency	3.93	0.49	Very Satisfactory	69.1
Support for 21st Century Skills Development	3.88	0.41	Very Satisfactory	59.1
Content Quality and Accuracy	3.84	0.48	Very Satisfactory	65.9
Usability and User-friendliness	3.83	0.42	Very Satisfactory	65.0
Pedagogical Soundness	3.80	0.43	Very Satisfactory	64.2
ICT Integration and Interactivity	3.73	0.52	Very Satisfactory	57.5
Grand mean	**3.84**	**0.46**	**Very Satisfactory**	—

Note. Dimensions are ordered from highest to lowest mean. The final column gives the combined percentage of ratings in the two highest categories (Outstanding and Very Satisfactory).

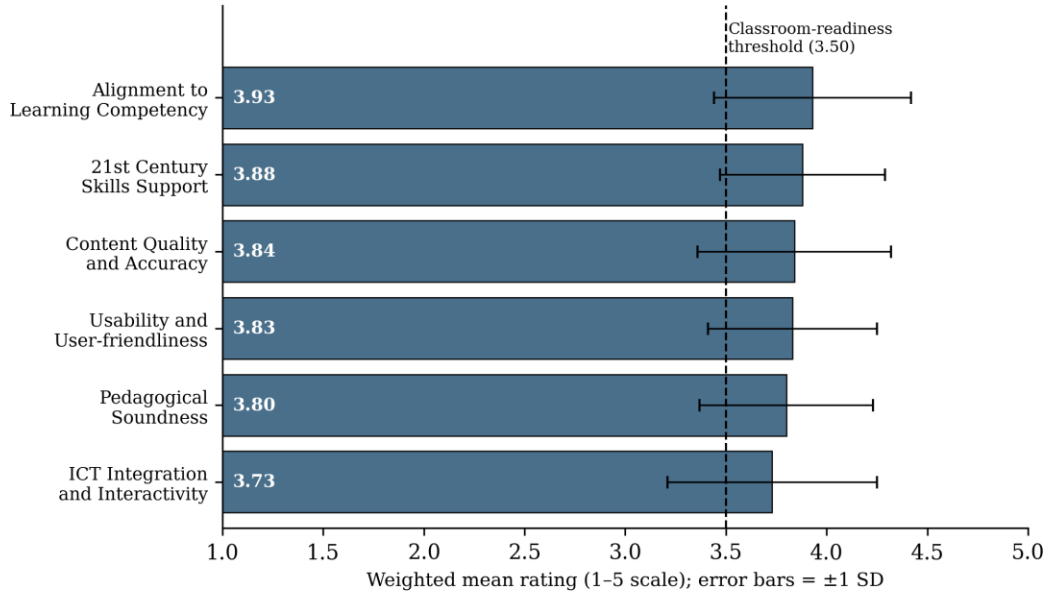

Figure 1. Weighted mean ratings of GeneticaLearn by evaluation dimensions. Error bars show ±1 SD; the dashed line marks the 3.50 classroom-readiness threshold.

No respondent selected the lowest rating category for any dimension. Between 57.5% and 69.1% of ratings within each dimension fell in the two highest categories (Table 3), and the remaining ratings were concentrated in the middle and lower-middle categories (Satisfactory 17.5%–23.3%; Needs Improvement 12.5%–20.0%). The dimension with the smallest share of top-two ratings, ICT integration and interactivity (57.5%), was also the one with the lowest mean.

Themes in teachers' feedback (Research Question 3)

Thematic analysis of the open-ended and guided responses produced 14 themes (Table 4). The most frequent issues were technology and technical issues (35.0%), which covered bandwidth in rural schools, students' device access, connectivity, the need for offline versions, and technical support during lessons. Pedagogical soundness (32.5%) reflected comments on scaffolding suited to Grade 8 learners, visible constructivist principles, built-in assessment, and progression from concrete to abstract ideas. Interactivity and engagement (30.0%) centered on the Punnett square builder, which teachers said supported active learning and error correction. Content quality and scientific accuracy (29.2%) reflected confirmation that the content was sound, correctly defined, and complete for the Grade 8 monohybrid cross competency.

Teachers also made several requests for improvement. They asked for facilitator support (26.7%): guides with answer keys, professional development, and technical support. They asked for more varied assessment (23.3%), including performance tasks, rubrics, portfolios, and items requiring higher-order thinking. They anticipated implementation challenges (18.3% each for feasibility and barriers), such as stable internet, technical help for some students, and classroom management during computer activities. They also asked for stronger mobile usability (13.3%), more Filipino agricultural and cultural contexts and career connections (12.5%), and accessibility and

differentiation for learners with sensory, motor, or reading difficulties and for advanced learners (11.7%). Visual design (10.0%) drew positive comments on allele animations and color coding of dominant and recessive alleles. Comments on 21st-century skills were rare (3.3%) and generally affirmative.

Table 4

Themes in Teacher-Validators' Feedback and Illustrative Comments

Rank	Theme	%	Illustrative comment
1	Technology and Technical Issues	35.0	"The digital divide might affect access in under-resourced schools."
2	Pedagogical Soundness	32.5	"Excellent scaffolding for Grade 8 learners. Constructivist principles evident."
3	Interactivity and Engagement	30.0	"Interactive tools allow active learning."
4	Content Quality and Scientific Accuracy	29.2	"The content is accurate and well-organized."
5	Teacher Support and Professional Development	26.7	"Professional development opportunities. Reliable technical support system."
6	Assessment and Evaluation	23.3	"More diverse assessment types are needed beyond multiple choice."
7	Implementation Feasibility	18.3	"Implementation requires stable internet. Some students may need additional technical support."
8	Barriers and Challenges	18.3	"Classroom management during computer activities may be challenging."
9	Alignment with Curriculum/MELC	17.5	"The module comprehensively addresses all monohybrid cross concepts as required by MELC."
10	Usability and User-friendliness	13.3	"Some user interface elements could be more intuitive."
11	Real-World Applications	12.5	"Add more real-world career connections in genetics."
12	Accessibility and Differentiation	11.7	"Develop differentiated versions for diverse learners."
13	Visual Design and Representation	10.0	"Visual representations of allele combinations are excellent."
14	21st Century Skills	3.3	"Module effectively supports 21st-century skills."

Note. One response could be coded to more than one theme, so percentages do not sum to 100.

Integration of ratings and comments

The joint display (Table 5) shows how the two data strands relate. Independent praise in the comments matched the high ratings for content quality, alignment, and pedagogical soundness. For ICT integration and interactivity, the lowest-rated dimension corresponded to the most frequent theme (technology and technical difficulties), and the comments described infrastructure and access rather than flaws in the design of the interactive features. Support for 21st-century skills was rated highly but attracted almost no comment, and usability was rated favorably, while comments identified specific improvements, notably for mobile devices.

Table 5

Joint Display of Quantitative Ratings and Qualitative Themes

Dimension (M)	Related theme (%)	Convergence
Content Quality and Accuracy (3.84)	Content Quality and Scientific Accuracy (29.2)	Agreement: content rated highly and independently praised as accurate.
Alignment to Learning Competency (3.93)	Alignment with Curriculum/MELC (17.5)	Highest rating echoed by explicit confirmation of MELC coverage.
Pedagogical Soundness (3.80)	Pedagogical Soundness (32.5)	Agreement: second most frequent theme reinforced the rating.
ICT Integration and Interactivity (3.73)	Technology and Technical Issues (35.0)	Lowest rating matched most frequent theme; comments point to infrastructure and access rather than design.
21st Century Skills Support (3.88)	21st Century Skills (3.3)	Solid rating with minimal comment; not treated as a priority concern.
Usability and User-friendliness (3.83)	Usability and User-friendliness (13.3)	Favourable rating tempered by specific suggestions on mobile interface and clarity.

Discussion

Principal findings

Thirty science teachers rated GeneticaLearn Very Satisfactory on all six dimensions, and their comments were consistent with the ratings. The clearest strengths were curriculum alignment, scientific accuracy, and pedagogical design. The main concerns were not about the module's instructional content but about the conditions under which it would be used: connectivity, devices, technical support, and preparation of teachers. Because the study measured teachers' judgements, these results indicate

perceived quality and readiness for classroom trial, and they do not show that the module improves student learning.

Interpretation of the ratings

The pattern is consistent with the frameworks that guided development. Teachers' comments on scaffolding, visible constructivist principles, and the interactive Punnett square echo the design intent of learning through doing, diagnostic entry points, and reflection. Their emphasis on integration conditions is consistent with the TEL premise and with evidence that the benefit of technology depends on how it is embedded in instruction (Anderson & Chen, 2024; Johnson et al., 2024). Comments praising the allele animations agree with the reported advantages of multimedia over text-only resources for making invisible genetic processes visible (Zhang et al., 2024) and with the link that Reyes and Morales (2023) reported between the visual quality of digital materials and teachers' evaluations. Constructivist approaches have also been associated with better transfer of genetics knowledge to novel problems (Thompson et al., 2023), which the module's scenario tasks and Creative Challenge were designed to support.

Two cautions apply to comparing dimensions. First, the six means lie in a narrow band (3.73–3.93), and the differences between them are smaller than any single dimension's standard deviation; without inferential testing, the ranking should be read as descriptive rather than as evidence that one dimension is reliably better than another. Second, ICT integration and interactivity may combine two constructs: the quality of the module's technology design and the school conditions needed to run it. The convergence with the technology theme suggests that infrastructure influenced this rating, but this explanation was not tested directly, and future instruments could separate design quality from implementation conditions. The dimension's wider spread and lower share of top-rated responses are compatible with the possibility that teachers in better-connected schools judged it differently.

The high rating but sparse commentary on 21st-century skills can be read in more than one way: teachers may have recognized the skills as present without seeing a need to elaborate, or they may have concentrated on content and technology, which were more salient to their implementation concerns. The data cannot distinguish between these explanations.

Implications for revision and use

The feedback translates into concrete revisions (Table 6). The offline version is ranked first because it addresses the most frequent concern and already exists, so it can be strengthened and tested quickly. A facilitator's guide and accessibility features are also within the developer's control. Broader assessment formats and additional Filipino agricultural and cultural scenarios require moderate effort. Teacher professional development and improved school infrastructure address concerns that teachers raised often, but they depend on institutional action, so they are positioned as longer-term goals. This feasibility-based ordering was applied deliberately, so priority in Table 6 does not simply follow the frequency of teacher concerns.

Table 6

Prioritized Recommendations for Module Revision

Priority	Recommendation	Related concern (%)	Feasibility
1	Strengthen and further test the offline version for low-connectivity schools	Technology and Technical Issues (35.0)	High
2	Develop a facilitator's guide with answer keys, troubleshooting steps, and suggested pacing	Teacher Support and Professional Development (26.7)	High
3	Add accessibility features and differentiated versions for struggling and advanced learners	Accessibility and Differentiation (11.7)	High
4	Expand assessment beyond multiple choice to include performance-based tasks	Assessment and Evaluation (23.3)	Moderate
5	Add Filipino agricultural and cultural scenarios and career connections	Real-World Applications (12.5)	Moderate
6	Organise teacher professional development on ICT integration and module facilitation	Teacher Support and Professional Development (26.7)	Long-term
7	Advocate through school and division channels for improved internet and device infrastructure	Technology and Technical Issues (35.0)	Long-term

Note. Priorities 1–3 can be implemented directly by the developer in the short term; priorities 4–5 need moderate additional resources; priorities 6–7 depend on institutional support.

For policy and practice, the study offers an example of how a locally developed digital resource can be aligned with a single MELC, evaluated against criteria comparable to those of the LRMDS, and designed from the outset for low-connectivity conditions. The same development and evaluation procedure could be reused for other science competencies.

Limitations

Several limitations should be considered. The sample of 30 teachers was recruited by convenience and purposive sampling from one division and required access to connectivity and devices; participants may therefore have been more favorable to ICT than teachers generally, and the findings should not be generalized to other regions or to all Philippine science teachers. Ratings were made by the same teachers who provided comments and were collected by the developer, which leaves room for social desirability

effects. Teachers reviewed the module over four to five days and did not use it with students, so ratings of usability, engagement, and feasibility are anticipatory. The module addresses one competency, and the descriptive design did not include inferential statistics or a comparison group. Finally, the source of the 21st-century skills and ICT differences discussed above remains speculative, and policies and technologies in schools may change over time.

Directions for future research

The next step is a classroom pilot that measures learning gains in monohybrid cross reasoning among students using the revised module compared with students taught by current methods, ideally with pre- and post-tests and attention to common misconceptions. Testing transferability would involve replicating the teacher validation in other divisions and with teachers who have less ICT access. The same methods could be applied to other genetics topics and other science competencies.

Conclusion

GeneticaLearn, a self-paced ICT-based module for predicting genotype and phenotype ratios in monohybrid crosses, was developed using the ADDIE model and evaluated by 30 secondary science teachers. Teachers rated it Very Satisfactory on content quality, curriculum alignment, pedagogy, ICT integration, 21st-century skills, and usability (grand mean 3.84), and their comments were consistent with these ratings. The main concerns are related to connectivity, devices, teacher support, assessment variety, accessibility, and local relevance. The module is judged ready for classroom trial, and priority revisions are an expanded offline version, a facilitator's guide, and accessibility features. Whether it improves student learning remains to be tested.

Declarations

Ethics approval and consent to participate. Institutional permission was obtained from school principals or division superintendents, and all teacher-validators gave informed consent before participating.

Availability of data and materials. The evaluation instrument and the anonymized response data are available. The GeneticaLearn student and teacher modules are available from the author on reasonable request.

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Author contributions (CRediT). Marissa M. Olarte: conceptualization, methodology, software/module development, investigation, formal analysis, writing—original draft, writing—review and editing.

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Use of generative AI. I, Marissa M. Olarte, declare that I used AI tools to validate the science modular content for effective teaching and learning. I used Brisk AI, Perplexity, Claude, and Grammarly to enhance the quality of the GeneticaLearn module. All outputs have been reviewed, adapted, edited, and validated using my professional expertise and agency to ensure accuracy, appropriateness, and alignment with learners' developmental needs/levels.

References

Anderson, K., & Chen, L. (2024). Active learning strategies and interactive simulations in secondary science education. *Contemporary Educational Research Review, 16*(2), 145–162.

Branch, R. M. (2009). *Instructional design: The ADDIE approach*. Springer.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

Dela Cruz, A. P. (2021a). *Development and evaluation of interactive digital modules in biology for Grade 9 learners* [Unpublished master's thesis]. Philippine Normal University.

Dela Cruz, M. (2021b). Effectiveness of interactive digital modules in secondary science instruction: A quasi-experimental study. *Philippine Journal of Science Education, 12*(4), 287–305.

Department of Education. (2020). *Most Essential Learning Competencies (MELCs) for K–12 Science*. Curriculum Development Division, DepEd.

Department of Education. (2024). *Status of ICT integration in Philippine basic education: 2024 national report*. Learning Resource Management and Development System, DepEd.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th ed.). McGraw-Hill.

Johnson, R., Thompson, P., & Williams, S. (2024). Meta-analysis of virtual reality and simulation-based learning in K–12 science education. *Educational Technology & Society, 27*(1), 89–107.

Kim, S., & Lee, J. (2023). Genetic misconceptions in secondary science learners: A systematic review and synthesis. *Educational Psychology Review, 35*(4), 1–35.

López-García, M., & Martín-López, S. (2023). Design principles for digital learning environments in science: A systematic analysis of effectiveness features. *Computers & Education, 198*, 104–123.

Orozco, J., & Hernández, R. (2024). Understanding student conceptual difficulties in genetics: Implications for curriculum design and instructional approaches. *Science Education Quarterly, 48*(2), 156–175.

Partnership for 21st Century Learning [P21]. (2024). *Framework for 21st century learning: Updated competencies for the modern world*. https://www.p21.org

Reyes, M., & Morales, J. (2023). Teacher-validated assessment of ICT-based instructional materials in Philippine secondary science. *Educational Research and Evaluation, 29*(3), 234–256.

Thompson, D., Johnson, B., & Martinez, C. (2023). Constructivist teaching approaches and conceptual understanding in secondary science: A comparative study. *Teaching and Teacher Education, 89*, 103–122.

Tolentino, R. (2025). *Science achievement disparities in Philippine secondary schools: Analysis of recent achievement test data* [Research report]. Department of Education.

Zhang, W., Liu, Y., & Chen, X. (2024). Effectiveness of multimedia visual representations in science learning environments. *Computers in Human Behavior, 142*, 107–126.

CORRELATION OF PERFORMANCE IN SELECTED UNDERGRADUATE ACCOUNTING SUBJECTS AND CPA LICENSURE EXAMINATION PERFORMANCE OF BS ACCOUNTANCY GRADUATES

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Abstract

This study examined the relationship between undergraduate performance in selected accounting subjects and Certified Public Accountant Licensure Examination (CPALE) performance among Bachelor of Science in Accountancy graduates of San Pablo Colleges who took the examination from 2021 to 2025. A retrospective quantitative correlational design was used. Institutional academic records and official CPALE ratings of 48 graduates were analyzed through means, standard deviations, frequencies, percentages, Pearson product–moment correlations, and paired bootstrap comparisons of dependent correlations using 100,000 resamples with Holm adjustment. Graduates had very satisfactory overall undergraduate performance ($M = 89.10$, $SD = 2.22$), whereas their CPALE general average was 61.27 ($SD = 14.56$); 15 (31.25%) passed and 33 (68.75%) failed. At the area level, undergraduate Financial Accounting and Reporting (FAR) was moderately associated with CPALE FAR ($r = .474$, $p < .001$), and undergraduate Management Services was weakly associated with CPALE Management Services ($r = .381$, $p = .010$). Financial Accounting 1 yielded the strongest significant individual-subject association with CPALE FAR ($r = .508$, $p < .001$), followed by Law 2 with CPALE Regulatory Framework for Business Transactions ($r = .500$, $p < .001$) and Valuation with CPALE Management Services ($r = .409$, $p = .004$). Only the difference between the FAR and Auditing correlations remained significant after Holm adjustment (adjusted $p = .005$). Undergraduate grades therefore provided useful but domain-specific indicators of CPALE performance and should be combined with other readiness evidence in academic monitoring and intervention.

Keywords: CPALE; accounting education; undergraduate academic performance; licensure examination; correlational analysis

Introduction

Professional licensure examinations provide a consequential assessment of whether graduates have attained the knowledge and competencies expected for entry into regulated practice. In the Philippines, the Certified Public Accountant Licensure Examination is administered under the regulatory framework for the accountancy profession and serves as a major indicator of graduate readiness and program performance. For higher education institutions, CPALE outcomes inform curriculum review, quality assurance, faculty development, review programming, and student support; for graduates, the examination determines access to professional licensure and shapes early career opportunities.

The Bachelor of Science in Accountancy curriculum is explicitly competency-oriented. Commission on Higher Education Memorandum Order No. 27, series of 2017, requires the program to develop technical competence, professional skills, values, ethics, and attitudes consistent with professional accountancy education. Its outcome-based orientation implies that achievement in undergraduate accounting courses should contribute to performance on external professional assessments. Nevertheless, classroom grades and licensure ratings are generated under different conditions. Course grades may reflect several assessments, instructional designs, and performance opportunities, whereas a licensure examination is a standardized, time-bounded assessment. Strong undergraduate achievement may therefore be associated with, but cannot be assumed to guarantee, strong CPALE performance.

Institutional studies of licensure performance often rely on cumulative grade averages or pass–fail outcomes. Although these indicators are useful, they may conceal differences among accounting domains. A subject-level approach can reveal whether performance in particular courses or course clusters corresponds more closely with performance in aligned CPALE areas. This analytical orientation is consistent with Allic and Lunar (2024), who emphasized the pedagogical value of recognizing patterns, quantifying relationships, and making reasoned predictions. In accounting education, these capacities support the interpretation of financial relationships and the solution of professional problems.

Institutional evidence also shows why broad indicators should be examined at the competency level. Liwanag and Lunar (2023) reported generally high levels of problem-solving, collaboration, and adaptability among college students but still identified aspects of problem solving that warranted curriculum enhancement. Similarly, Lunar, Eala, and Perez (2024) framed quality assurance as an interconnected set of practices and processes that should generate evidence for continuing improvement and institutional sustainability.

The present study responds to this need through an institutional analysis of San Pablo Colleges BSA graduates who took the CPALE from 2021 to 2025. It examines both composite accounting areas and individual subjects while statistically comparing the strength of dependent correlations. The analysis treats undergraduate grades as potential indicators rather than causes of licensure performance and situates the findings within

SPC's continuing efforts toward pedagogical innovation, curriculum enhancement, and evidence-informed quality assurance.

A closely related SPC accounting study, Charting the Future of Finance: A Phenomenographic Study on JPIA Officers' Conceptions of AI Integration in Accounting Practices, provides an important contemporary context. Lunar and Reyes (2026) found four qualitatively different conceptions of AI among JPIA officers: AI as a learning and efficiency tool, a catalyst for innovation, a professional threat, and complementary support to human judgment. These findings show that readiness for the accounting profession now extends beyond mastery of licensure content. It also requires technological adaptability, ethical awareness, critical evaluation of AI outputs, and the capacity to preserve human judgment in technology-mediated practice.

Objectives and Hypotheses

The study sought to: (1) determine the level of performance of BSA graduates in selected undergraduate accounting subjects; (2) describe their performance in corresponding CPALE subject areas; (3) test the relationships between undergraduate and CPALE performance; (4) identify the undergraduate subject with the strongest significant corresponding relationship; and (5) determine whether the strengths of the area-level relationships differed significantly. The null hypotheses stated that no significant corresponding relationships existed and that the strengths of the relationships did not differ. All tests used a two-tailed alpha level of .05.

Conceptual Framework

The framework posits that performance in selected undergraduate accounting subjects may be associated with performance in aligned CPALE subject areas. The aligned domains were Financial Accounting and Reporting (FAR), Advanced Financial Accounting and Reporting (AFAR), Management Services, Auditing, Taxation, and Regulatory Framework for Business Transactions (RFBT). Undergraduate grades were treated as institutional indicators of demonstrated course achievement, whereas CPALE ratings represented performance under an external professional assessment. Student and institutional influences not represented in the records—such as study habits, motivation, review participation, examination preparation, faculty practices, and learning resources—were recognized as contextual factors and were not modeled as explanatory variables.

Methods

Research Design

A retrospective quantitative correlational design was employed. The design was appropriate because the study analyzed existing academic and licensure records and estimated the direction and magnitude of associations without manipulating variables or assigning interventions. The unit of analysis was the graduate.

Participants and Data Sources

The analytic sample comprised 48 San Pablo Colleges BSA graduates with available undergraduate records and CPALE ratings from examinations taken between 2021 and 2025. Total enumeration of eligible records in the institutional dataset was used. Undergraduate records covered Fundamentals of Accounting, Financial Accounting, Advanced Accounting, Management Services, Auditing, Taxation, law and regulatory subjects, and a review course. CPALE records contained ratings for FAR, AFAR, Management Services, Auditing, Taxation, RFBT, the general average, and the official pass–fail result. Missing course grades were retained as missing rather than imputed; consequently, pairwise sample sizes ranged from 45 to 48 in analyses involving affected composites.

Measures and Variable Construction

Individual course grades were recorded on a 100-point scale. Related courses were averaged to form area composites corresponding to CPALE domains. FAR included Financial Accounting 1–3; AFAR included Advanced Accounting 1–2 and Government Accounting; Management Services included Cost Accounting 1–2, Financial Management 1, Strategic Business Analysis, and Valuation; Auditing included Auditing 1–2 and Auditing Practice; Taxation included Taxation 1–2; and RFBT included Law 1, Law 2, and the RFBT course. Available-item means were computed only from recorded grades, and complete paired observations were used for each correlation. Descriptive interpretation of undergraduate means followed the institutional bands: 90.00–100.00, outstanding; 85.00–89.99, very satisfactory; 80.00–84.99, satisfactory; 75.00–79.99, fairly satisfactory; and below 75.00, did not meet expectations. The 75-point CPALE benchmark was used descriptively and did not replace the official pass–fail classification.

Data Analysis

Means and standard deviations described continuous performance measures; frequencies and percentages described benchmark attainment and official CPALE results. Pearson product–moment correlation estimated corresponding area-level and individual-subject relationships. Absolute correlations were interpreted as very weak (.00–.19), weak (.20–.39), moderate (.40–.59), strong (.60–.79), or very strong (.80–1.00). Coefficients of determination were reported for significant relationships as descriptive shared variance, not as causal variance explained.

Because area-level correlations were derived largely from the same graduates and shared neither independence nor identical missing-data patterns, their differences were evaluated as dependent correlations using paired nonparametric bootstrap resampling. For each comparison, only cases complete on both undergraduate composites and both CPALE ratings were included. One hundred thousand resamples were drawn, and two-sided p values were obtained for differences between correlations. The Holm sequential procedure controlled the familywise error rate across 15 pairwise comparisons (Holm, 1979).

Ethical Considerations

The analysis used existing educational and licensure records for institutional research. Personally identifying information was excluded from analytic reporting, results were presented only in aggregate, and no individual graduate was identifiable in the manuscript. Access to source records should remain restricted to authorized personnel in accordance with institutional data-governance requirements and the Philippine Data Privacy Act of 2012. The authors should insert the applicable institutional approval or exemption reference before journal submission if required by the target journal.

Results

Table 1. Undergraduate Performance by Accounting Subject Area

Subject area	n	Mean	SD	Interpretation	Rank
Taxation	48	89.89	2.11	Very satisfactory	1
Advanced Financial Accounting and Reporting	48	89.86	2.60	Very satisfactory	2
Regulatory Framework for Business Transactions	48	89.78	3.49	Very satisfactory	3
Management Services	48	89.57	2.57	Very satisfactory	4
Auditing	48	89.13	3.03	Very satisfactory	5
Fundamentals of Accounting	48	88.46	3.15	Very satisfactory	6
Financial Accounting and Reporting	48	87.99	2.60	Very satisfactory	7
Review 1	47	85.36	3.46	Very satisfactory	8
Overall undergraduate performance	**48**	**89.10**	**2.22**	**Very satisfactoy**	**—**

Graduates demonstrated very satisfactory overall undergraduate performance (M = 89.10, SD = 2.22). Area means were tightly clustered between 87.99 and 89.89, suggesting consistently high recorded achievement. Taxation ranked first (M = 89.89), closely followed by AFAR (M = 89.86) and RFBT (M = 89.78). FAR had the lowest mean among the six directly corresponding areas (M = 87.99), while Review 1 had the lowest mean among all summarized areas (M = 85.36); both remained very satisfactory. At the individual-course level, Strategic Business Analysis had the highest mean (M = 91.65).

Table 2. CPALE Performance and Benchmark Attainment

CPALE area	Mean	SD	≥75 f (%)	<75 f (%)
Regulatory Framework for Business Transactions	66.44	13.15	17 (35.42)	31 (64.58)
Auditing	63.35	11.60	13 (27.08)	35 (72.92)
Taxation	60.62	15.08	15 (31.25)	33 (68.75)
Advanced Financial Accounting and Reporting	60.21	13.86	15 (31.25)	33 (68.75)
Financial Accounting and Reporting	58.81	17.62	15 (31.25)	33 (68.75)
Management Services	58.19	18.06	13 (27.08)	35 (72.92)
General average	**61.27**	**14.56**	**—**	**—**

Note. Subject-level attainment of 75 is descriptive and does not independently determine the official CPALE result.

CPALE performance was substantially more dispersed than undergraduate performance. The general average was 61.27 (SD = 14.56), with observed values ranging from 35.50 to 82.17. RFBT had the highest area mean (M = 66.44), whereas Management Services had the lowest mean (M = 58.19) and greatest variability (SD = 18.06). In every area, fewer than 40% attained a rating of at least 75. Officially, 15 graduates (31.25%) passed and 33 (68.75%) failed.

Table 3. Relationships Between Undergraduate Accounting Areas and Corresponding CPALE Areas

Corresponding area	n	r	p	Strength	Decision
Financial Accounting and Reporting	48	.474	<.001	Moderate positive	Reject H_0
Management Services	45	.381	.010	Weak positive	Reject H_0
Regulatory Framework for Business Transactions	48	.276	.058	Weak positive	Fail to reject
Taxation	48	.273	.060	Weak positive	Fail to reject
Advanced Financial Accounting and Reporting	47	.214	.149	Weak positive	Fail to reject
Auditing	47	−.026	.863	Very weak negative	Fail to reject

Two of the six area-level relationships were statistically significant. Undergraduate FAR was moderately and positively related to CPALE FAR, $r(46) = .474$, $p < .001$, corresponding to $r^2 = .224$. Undergraduate Management Services was weakly and

positively related to CPALE Management Services, r(43) = .381, p = .010, corresponding to r^2 = .145. RFBT and Taxation produced similar weak positive coefficients but narrowly missed the .05 criterion. AFAR was weak and nonsignificant, while Auditing was essentially unrelated to its CPALE counterpart. Thus, the omnibus proposition received only partial support.

Table 4. Significant Individual-Subject Relationships Ranked by Magnitude

Rank	Undergraduate subject	CPALE area	n	r	p	r^2
1	Financial Accounting 1	FAR	48	.508	<.001	.258
2	Law 2	RFBT	48	.500	<.001	.250
3	Valuation	Management Services	48	.409	.004	.168
4	Cost Accounting 1	Management Services	48	.397	.005	.157
5	Financial Accounting 3	FAR	48	.351	.014	.123
6	Government Accounting	AFAR	48	.349	.015	.121
7	Cost Accounting 2	Management Services	47	.345	.018	.119
8	Financial Accounting 2	FAR	48	.342	.017	.117
9	Taxation 1	Taxation	48	.335	.020	.112

Financial Accounting 1 had the largest significant individual-subject coefficient, r(46) = .508, p < .001. Approximately 25.8% of its variance was shared with CPALE FAR performance. Law 2 was nearly equivalent in magnitude (r = .500), and Valuation produced a moderate association with Management Services (r = .409). All three Financial Accounting courses were significantly related to CPALE FAR, while only selected courses within the other domains were significant. Ranking establishes the largest observed coefficient but does not by itself prove that one relationship is statistically stronger than another.

Table 5. Comparisons of Area-Level Correlations

Comparison	n	r_1	r_2	Δr	Raw p	Holm p	Decision
FAR vs Auditing	47	.509	−.026	.535	<.001	.005	Significant

Management Services vs Auditing	45	.381	−.068	.449	.007	.096	Not significant
FAR vs AFAR	47	.509	.214	.295	.029	.372	Not significant
Auditing vs RFBT	47	−.026	.313	−.339	.034	.411	Not significant
Auditing vs Taxation	47	−.026	.294	−.320	.042	.467	Not significant
AFAR vs Auditing	47	.214	−.026	.240	.070	.701	Not significant
FAR vs Taxation	48	.474	.273	.200	.098	.881	Not significant
FAR vs RFBT	48	.474	.276	.198	.140	1.000	Not significant
AFAR vs Management Services	45	.185	.381	−.195	.182	1.000	Not significant
Management Services vs Taxation	45	.381	.277	.103	.381	1.000	Not significant
FAR vs Management Services	45	.476	.381	.096	.444	1.000	Not significant
AFAR vs RFBT	47	.214	.313	−.099	.465	1.000	Not significant
Management Services vs RFBT	45	.381	.298	.083	.498	1.000	Not significant
AFAR vs Taxation	47	.214	.294	−.080	.588	1.000	Not significant
Taxation vs RFBT	48	.273	.276	−.002	.950	1.000	Not significant

Note. Correlations were compared using paired bootstrap resampling with 100,000 resamples. Holm-adjusted p values control the familywise error rate across 15 comparisons.

Only FAR versus Auditing remained significant after multiplicity adjustment. Among 47 complete cases, the FAR correlation was moderately positive ($r = .509$), while the Auditing correlation was near zero ($r = -.026$); $\Delta r = .535$, Holm-adjusted $p = .005$. No other comparison demonstrated a statistically reliable difference. Accordingly, the null hypothesis of equal relationship strength was rejected only for FAR versus Auditing.

Discussion

The results show a marked contrast between consistently high undergraduate grades and much lower, more variable CPALE ratings. The restricted spread of undergraduate scores—an overall SD of only 2.22—indicates that graduates were clustered within a narrow high-performing band. In contrast, the CPALE general-average SD was 14.56. This mismatch suggests that undergraduate grades and licensure ratings do not operate as interchangeable measures. Classroom achievement can represent sustained performance across varied tasks, whereas the CPALE concentrates multiple competencies within a standardized high-stakes setting. The 31.25% passing proportion therefore should not be interpreted simply as evidence that graduates lacked undergraduate knowledge; it signals a translation gap between recorded course achievement and performance under licensure conditions.

FAR emerged as the clearest bridge between the undergraduate curriculum and the licensure examination. The significant area-level correlation, the significance of all three Financial Accounting courses, and the leading coefficient for Financial Accounting 1 create a convergent pattern. Foundational accounting concepts are cumulative: early mastery supports later recognition, measurement, presentation, and problem-solving tasks. Financial Accounting 1 may consequently function as an early-warning course. Students with weak performance in this subject may benefit from prompt diagnostic assessment, structured remediation, and closer monitoring as they progress through subsequent FAR courses. The shared variance of 25.8%, however, also means that most variation in CPALE FAR was not shared with this single course grade.

Management Services presented a second, more selective pattern. Its composite correlation was significant, but individual results were concentrated in Cost Accounting 1, Cost Accounting 2, and Valuation. Financial Management 1 and Strategic Business Analysis were essentially unrelated to the CPALE Management Services rating. This may reflect differences in content coverage, assessment emphasis, or the degree to which course tasks resemble licensure-level problem solving. The finding supports a competency-mapping review within the cluster instead of treating all component courses as equally diagnostic.

The Law 2–RFBT relationship was strong enough to rank second among significant course-level associations, yet the full RFBT composite fell just short of significance. The contrast indicates that averaging aligned and weakly aligned courses can dilute a meaningful course-level signal. A similar pattern appeared in AFAR, where Government Accounting was significant even though the composite was not, and in Taxation, where Taxation 1 was significant but Taxation 2 was not. These results favor granular curriculum analytics. Program leaders should examine assessment blueprints and course outcomes at the level of competencies and course sequences rather than relying exclusively on broad cluster averages.

Auditing was the principal anomaly. Undergraduate Auditing grades were very satisfactory, yet their correlation with CPALE Auditing was virtually zero and significantly weaker than the FAR relationship. A near-zero coefficient does not establish that the

auditing curriculum is ineffective; it indicates that rank ordering in undergraduate Auditing grades did not correspond with rank ordering in CPALE Auditing ratings in this cohort. Possible explanations include limited grade variability, differences between course and licensure assessment formats, changes in examination coverage, grading practices, time elapsed since coursework, and unmeasured preparation. A structured audit of course outcomes, item types, cognitive demand, and CPALE competency specifications is warranted before drawing programmatic conclusions.

The results reinforce the logic of outcomes-based quality assurance under CHED Memorandum Order No. 27, series of 2017. Alignment should be demonstrated empirically, not presumed from course titles. This conclusion is consistent with Lunar, Eala, and Perez (2024), who positioned quality assurance as an interconnected set of institutional practices and processes directed toward sustainability. Routinely relating course outcomes to CPALE performance converts licensure results into feedback for continuing improvement rather than treating them only as retrospective rankings.

The findings of Charting the Future of Finance are especially relevant to the interpretation of the present study. Lunar and Reyes (2026) showed that JPIA officers did not understand AI in a single way; their conceptions ranged from pragmatic acceptance and innovation to apprehension about dependence, displacement, and diminished opportunities. Importantly, they regarded AI as support that cannot replace human expertise, ethical responsibility, and professional decision-making. Consequently, interventions based on the present CPALE findings should strengthen not only technical deficiencies in FAR, Management Services, and other examination areas but also the capacity to use emerging technologies responsibly. Licensure readiness and future-of-work readiness should therefore be developed together.

An institutional dashboard can track course-level indicators, comprehensive assessment performance, review diagnostics, and subsequent CPALE ratings by cohort. It may also incorporate evidence of digital competence, ethical reasoning, and AI-assisted problem solving. Such monitoring should be developmental rather than punitive: correlations can help locate risk and alignment issues, but they are not deterministic forecasts of individual success.

Practical Implications

First, the program can designate Financial Accounting 1 as an early monitoring point and link low performance to timely tutoring, mastery checks, and prerequisite reinforcement. Second, the Management Services sequence should be reviewed at the competency level, with particular attention to why Cost Accounting and Valuation were more diagnostic than Financial Management and Strategic Business Analysis. Third, the Auditing sequence requires constructive alignment analysis across learning outcomes, classroom assessments, and current licensure competencies. Fourth, comprehensive or pre-board assessments should supplement course grades because the present results show that grades alone provide incomplete readiness evidence. Finally, cohort analytics should be repeated annually so that interventions respond to stable patterns rather than a single pooled sample.

Limitations

The study was limited to 48 graduates from one institution and to examination records from 2021–2025; the findings are therefore context-specific and should not be generalized to all BSA programs. The retrospective dataset did not include review-center participation, number of examination attempts, time between graduation and examination, study habits, motivation, employment status, or psychological readiness. Some course records were missing, producing pairwise sample sizes below 48. Undergraduate grades also had restricted variability, which can attenuate correlations. Multiple subject-level correlations were explored without a separate familywise adjustment; these results should be viewed as institutionally useful signals requiring replication. Finally, correlation does not establish causal influence or predictive accuracy for future cohorts.

Conclusion

The BSA graduates demonstrated very satisfactory undergraduate performance but substantially lower and more variable CPALE performance. Corresponding relationships were not uniform across accounting domains. FAR and Management Services showed significant area-level associations, while RFBT, Taxation, AFAR, and Auditing did not. Financial Accounting 1 had the strongest observed individual-subject relationship, closely followed by Law 2, but only the difference between the FAR and Auditing area correlations was statistically reliable after adjustment. Undergraduate grades can therefore support academic monitoring, especially in FAR, but they should not be used as stand-alone indicators of licensure readiness. A stronger institutional approach would combine course performance with competency-based diagnostics, comprehensive examinations, review data, and longitudinal cohort evidence.

Recommendations

1. Establish an early-warning and remediation protocol beginning with Financial Accounting 1 and extending through the FAR sequence.
2. Conduct a formal curriculum-and-assessment alignment review for Auditing and for nonsignificant courses within the Management Services, AFAR, Taxation, and RFBT clusters.
3. Use comprehensive examinations or pre-board diagnostics alongside course grades to identify readiness gaps before graduation and before CPALE application.
4. Develop a secure longitudinal dashboard that links de-identified course, diagnostic, review, and CPALE outcomes by cohort.
5. Replicate the analysis with larger multi-cohort samples and include review preparation, attempt history, time-to-examination, study behaviors, and other relevant covariates.
6. In future confirmatory studies, prespecify primary subject-level hypotheses and apply multiplicity controls to reduce false-positive findings.

Declarations

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References

Allic, C. M., & Lunar, B. C. (2024). Understanding patterns, quantifying relationships, and predicting the future with mathematics in the modern world: Inputs to pedagogical innovation. Education & Learning Developing Nations, 2(1), 1–3. https://doi.org/10.26480/eldn.01.2024.01.03

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Lawrence Erlbaum Associates.

Commission on Higher Education. (2017). CHED Memorandum Order No. 27, series of 2017: Revised policies, standards and guidelines for Bachelor of Science in Accountancy.

Efron, B., & Tibshirani, R. J. (1993). An introduction to the bootstrap. Chapman & Hall/CRC.

Field, A. (2018). Discovering statistics using IBM SPSS statistics (5th ed.). SAGE.

Holm, S. (1979). A simple sequentially rejective multiple test procedure. Scandinavian Journal of Statistics, 6(2), 65–70.

Liwanag, M. J. M., & Lunar, C. B. (2023). College of Arts and Sciences students' levels of problem solving, collaboration and adaptability skills: Basis for curriculum enhancement. Education, Sustainability & Society, 6(2), 82–86. https://doi.org/10.26480/ess.02.2023.82.86

Lunar, B. C., Eala, C. M. C., & Perez, A. D. (2024). Probing practices, processes, and perspectives on quality assurance: Towards institutional sustainability. Business, Organizations and Society, 2(2), 75–84.

Lunar, J. A. L., & Reyes, O. A. (2026). Charting the future of finance: A phenomenographic study on JPIA officers' conceptions of AI integration in accounting practices. AJIMAS, 1(1), 76–87. https://doi.org/10.66206/eh.ajimas.48

Republic of the Philippines. (2004). Republic Act No. 9298: Philippine Accountancy Act of 2004.

Republic of the Philippines. (2012). Republic Act No. 10173: Data Privacy Act of 2012.

IMPACT OF MOOE UTILIZATION ON THE QUALITY OF CLASSROOM INSTRUCTION IN PUBLIC ELEMENTARY AND SECONDARY SCHOOLS OF MAGDIWANG

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Abstract

This study evaluated the impact of Maintenance and Other Operating Expenses (MOOE) utilization on classroom instruction quality in twelve public elementary and secondary schools in Magdiwang, Romblon, during SY 2025–2026. Using a descriptive-correlational design, data were gathered from 133 respondents—comprising school heads, a head teacher, and classroom teachers—via a validated Likert-scale questionnaire covering six dimensions each of MOOE utilization and instructional quality. Data were analyzed using weighted means, standard deviations, and Pearson's product-moment correlation. The findings revealed an overall grand mean of 4.32 for MOOE utilization (Very High Utilization), led by Teacher Support and Professional Activities (4.40). The overall quality of classroom instruction earned a grand mean of 4.57 (Very High Quality), with Instructional Delivery and Classroom Management both ranking highest (4.67). Inferential analysis demonstrated a strong, positive, and statistically significant relationship between MOOE utilization and instructional quality ($r = 0.682$, $p < 0.001$), leading to the rejection of the null hypothesis. The study concludes that strategic MOOE allocation enhances teacher preparedness, learning environments, and operational continuity. Recommendations include strengthening needs-based financial planning, expanding instructional material procurement, and sustaining MOOE-funded professional development.

Keywords: MOOE Utilization, Classroom Instruction Quality, School-Based Management, Educational Resource Allocation, Public School Administration

Introduction

Education plays a vital role in national development because it equips learners with the necessary knowledge, skills, values, and competencies needed for lifelong learning and productive citizenship. In the Philippines, the Department of Education (DepEd) continuously implements reforms and programs to improve the quality of education in public schools. One of the major support mechanisms provided to schools is the allocation of Maintenance and Other Operating Expenses (MOOE), which serves as a financial resource intended for the day-to-day operational needs of schools.

MOOE utilization has become an essential factor in ensuring the effective delivery of classroom instruction. Through proper utilization of MOOE, schools are able to provide instructional materials, improve classroom environments, support teacher activities, maintain school facilities, and address other educational needs that directly affect teaching and learning processes. The quality of classroom instruction may be enhanced when resources are adequately managed and properly utilized.

In public elementary and secondary schools of Magdiwang, school heads and teachers are expected to efficiently utilize MOOE funds to support educational programs and classroom instruction. However, differences in school size, teacher population, and administrative capacity may affect how MOOE is allocated and utilized. Some schools may face challenges in prioritizing expenditures, procurement processes, and instructional resource allocation.

The Municipality of Magdiwang consists of several public elementary and secondary schools with varying teacher populations and organizational structures. The elementary schools included in this study are Agsao Elementary School with 1 school head and 7 teachers; Agutay Elementary School with 1 school head and 12 teachers; Ambulong Elementary School with 1 school head and 7 teachers; Dulangan Elementary School with 1 school head and 8 teachers; Ipil Elementary School with 1 school head and 9 teachers; Jao-asan Elementary School with 1 school head and 7 teachers; Magdiwang Elementary School with 1 school head and 24 teachers; Silum Elementary School with 1 school head and 7 teachers; Tampayan Elementary School with 1 school head and 8 teachers; and Tomas and Maria T. Maglaya Memorial Elementary School with 1 school head and 8 teachers. The secondary schools include Magdiwang National High School with 1 school head, 3 head teachers, and 51 teachers, and Agutay National High School with 1 school head and 20 teachers.

Considering the importance of financial management in schools, this study seeks to determine the impact of MOOE utilization on the quality of classroom instruction in public elementary and secondary schools of Magdiwang. The findings of this study may provide useful information for school administrators, teachers, policy makers, and stakeholders in improving financial utilization and instructional quality.

Methods

Research Design

This study used the descriptive-correlational research design. The descriptive method will be utilized to determine the level of MOOE utilization and the quality of classroom instruction, while the correlational method will be used to determine the significant relationship between the variables.

The descriptive-correlational design is appropriate for this study because it allows the researcher to describe existing conditions and examine the relationship between MOOE utilization and classroom instruction without manipulating the variables.

Research Setting

The study will be conducted in the public elementary and secondary schools of Magdiwang, Romblon. These schools include:

1. Agsao Elementary School
2. Agutay Elementary School
3. Ambulong Elementary School
4. Dulangan Elementary School
5. Ipil Elementary School
6. Jao-asan Elementary School
7. Magdiwang Elementary School
8. Silum Elementary School
9. Tampayan Elementary School
10. Tomas and Maria T. Maglaya Memorial Elementary School
11. Magdiwang National High School
12. Agutay National High School

Respondents of the Study

The respondents of the study will include school heads, head teachers, and teachers from the identified public elementary and secondary schools.
The distribution of respondents is presented below:

School	School Heads	Head Teachers	Teachers
Agsao Elementary School	1	0	7
Agutay Elementary School	1	0	12
Ambulong Elementary School	1	0	7
Dulangan Elementary School	1	0	8
Ipil Elementary School	1	0	9
Jao-asan Elementary School	1	0	7
Magdiwang Elementary School	1	0	24
Silum Elementary School	1	0	7
Tampayan Elementary School	1	0	8
Tomas and Maria T. Maglaya Memorial Elementary School	1	0	8
Magdiwang National High School	1	3	51
Agutay National High School	1	0	20
Total	**12**	**3**	**168**

The study may utilize total enumeration to ensure that all qualified respondents are represented.

Data Gathering Tool

The primary instrument to be used in this study is a researcher-made questionnaire divided into three parts.

Part I will gather the profile of the respondents and schools.
Part II will determine the level of MOOE utilization in terms of:

- Procurement of instructional materials
- Classroom maintenance and repair
- Support for teaching activities
- School facility improvement
- Utilities and operational expenses
- Teacher support and professional activities

Part III will assess the quality of classroom instruction in terms of:

- Teacher preparedness
- Availability of instructional materials
- Classroom learning environment
- Instructional delivery
- Learner engagement
- Classroom management

The questionnaire will use a five-point Likert Scale.

Scale	Range	Description
5	4.21 – 5.00	Very High
4	3.41 – 4.20	High
3	2.61 – 3.40	Moderate
2	1.81 – 2.60	Low
1	1.00 – 1.80	Very Low

Validation of the Instrument

The questionnaire will be subjected to content validation by experts in educational management and research. Suggestions and recommendations will be incorporated to improve the instrument.

The research instrument was validated by Mr. Jose O. Garcia, Public Schools District Supervisor and research mentor and Dr. Peter Elmar Bordo, the researcher's thesis adviser. Their suggestions and recommendations will be incorporated to improve the instrument.

A pilot test was conducted on June 1, 2026, at Magdiwang Elementary School, with 25 teachers participating. This was done to determine the reliability of the instrument using Cronbach's Alpha.

Data Gathering Procedures

The researcher first prepared the research instrument and secured the necessary endorsement from the thesis adviser. A formal letter requesting permission to conduct the study was submitted to the Schools Division Superintendent. Upon approval, another request was sent to the heads of the selected schools to seek their consent and schedule the administration of questionaries.

After approval, the researcher personally distributed the questionnaires to the respondents. The purpose and objectives of the study were clearly explained, along with assurances of confidentiality and voluntary participation, to ensure that respondents fully understood the content and intent of the instrument. The researcher also addressed queries and guided the respondents as they filled out the forms.

The accomplished questionnaires were promptly retrieved right after the respondents completed them. The collected forms were thoroughly checked for completeness and consistency. Valid responses were checked, encoded, tallied, subjected to statistical analysis, and finally interpreted to derive meaningful findings.

Statistical Treatment of Data

The following statistical tools will be used in analyzing the data:

1. Frequency and Percentage These will be used to describe the profile of the respondent schools.
2. Weighted Mean This will be used to determine the level of MOOE utilization and quality of classroom instruction.

The formula is:
Weighted Mean = $\Sigma fx / N$

3. Pearson Product-Moment Correlation Coefficient (Pearson r) This will be used to determine the significant relationship between MOOE utilization and the quality of classroom instruction.
4. Level of Significance The hypothesis will be tested at 0.05 level of significance.

Ethical Considerations

The researcher will observe ethical standards in conducting the study. Participation of respondents will be voluntary, and confidentiality of responses will be ensured. The data gathered will be used solely for academic purposes.

Results and Discussion

This chapter presents, analyzes, and interprets the data gathered from the respondents regarding the **Impact of MOOE Utilization on the Quality of Classroom Instruction in Public Elementary and Secondary Schools of Magdiwang**. The presentation follows the sequence of the specific problems stated in Chapter 1.

Profile of the Respondents

The respondents of the study consisted of **133 school personnel** from the public elementary and secondary schools of Magdiwang. These included school heads, a head teacher, and classroom teachers. Their profile is presented according to position, years in service, and school classification.

Table 1

Distribution of Respondents According to Position

Position	Frequency	Percentage
School Head	3	2.26
Head Teacher	1	0.75
Teacher	129	96.99
Total	**133**	**100.00**

Note: Frequencies and percentages reflect the composition of respondents from the selected public schools

Table 1 present the distribution of respondents by position. Of the 133 total respondents, 129 (96.99%) were teachers, 3 (2.26%) were school heads, and 1 (0.75%) was a head teacher. This indicates that the study was largely represented by classroom teachers, who are directly involved in instructional delivery and are therefore in the best position to evaluate both MOOE utilization and the quality of classroom instruction.

The participation of school heads and the head teacher also strengthens the reliability of the findings because they are directly involved in school financial management and instructional supervision.

Table 2
Distribution of Respondents According to Years in Service

Years in Service	Frequency	Percentage
1–5 years	16	12.03
6–10 years	32	24.06
11–15 years	30	22.56
16–20 years	9	6.77
21 years and above	46	34.58

Total	**133**	**100.00**

The data reveal that 46 respondents (34.58%) have served for 21 years and above, representing the largest group. This was followed by respondents with 6–10 years of service (24.06%) and 11–15 years (22.56%). Respondents with 1–5 years comprised 12.03%, while those with 16–20 years represented 6.77%.

The findings imply that the majority of respondents possess extensive teaching experience, making them capable of providing reliable assessments regarding the utilization of MOOE and the quality of classroom instruction.

Table 3

Distribution of Schools According to Classification

School Classification	Frequency	Percentage
Elementary Schools	10	83.33
Secondary Schools	2	16.67
Total	**12**	**100.00**

Table 3 shows that the study covered 12 public schools, consisting of 10 elementary schools (83.33%) and 2 secondary schools (16.67%). The inclusion of both elementary and secondary schools provides a comprehensive assessment of MOOE utilization across different educational levels in the Municipality of Magdiwang.

Research Problem No. 1
Level of MOOE Utilization

Table 4
Procurement of Instructional Materials

Using the weighted mean formula based on the frequency distribution in your data, the results are as follows:

Indicator	Weighted Mean	Interpretation
Purchase of teaching materials	**4.42**	Very High
Learning resources are adequately supported	**4.33**	Very High
Sufficient instructional supplies	**4.34**	Very High
Reproduction of modules and worksheets	**4.29**	Very High
Maintenance of instructional equipment	**4.28**	Very High
Grand Mean	**4.33**	**Very High Utilization**

Table 4 reveals that the procurement of instructional materials obtained an **overall grand mean of 4.33**, interpreted as **Very High Utilization**.

Among the indicators, **"MOOE funds are utilized for the purchase of teaching materials"** obtained the highest weighted mean (**4.42**), indicating that schools prioritize the acquisition of instructional resources that directly support classroom instruction.

The indicator **"Instructional equipment is maintained using MOOE allocation"** obtained the lowest weighted mean (**4.28**). Although it received the lowest score among the indicators, it is still interpreted as **Very High**, suggesting that schools consistently allocate MOOE for maintaining instructional equipment.

Overall, the findings indicate that public elementary and secondary schools in Magdiwang effectively utilize their MOOE allocations in procuring instructional materials essential for improving classroom instruction. This supports the Department of Education's policy that school operational funds should primarily address instructional needs to enhance teaching and learning.

Research Problem No. 1

Table 5

Level of MOOE Utilization in terms of Classroom Maintenance and Repair

Indicators	Weighted Mean	Interpretation	Rank
1. MOOE funds are used for classroom repair and maintenance.	**4.37**	Very High Utilization	1
2. Classroom cleanliness and safety are supported through MOOE.	**4.15**	High Utilization	5
3. Damaged classroom facilities are immediately repaired using MOOE funds.	**4.17**	High Utilization	4
4. MOOE contributes to maintaining a conducive classroom environment.	**4.26**	Very High Utilization	2
5. Classroom furniture and fixtures are maintained properly.	**4.17**	High Utilization	3
Grand Mean	**4.22**	**Very High Utilization**	

Table 5 presents the level of MOOE utilization in terms of classroom maintenance and repair. The overall **grand mean of 4.22** indicates a **Very High Utilization**.

The indicator **"MOOE funds are used for classroom repair and maintenance"** ranked first with a weighted mean of **4.37**, indicating that schools prioritize the maintenance of classrooms to ensure a safe and conducive learning environment.

On the other hand, **"Classroom cleanliness and safety are supported through MOOE"** obtained the lowest weighted mean of **4.15**. Although ranked last among the indicators, it is still interpreted as **High Utilization**, implying that respondents generally agree that MOOE funds adequately support classroom cleanliness and safety.

The findings indicate that school administrators effectively allocate MOOE funds for classroom maintenance and repairs, thereby improving the learning environment and supporting quality instruction.

Table 6

Level of MOOE Utilization in terms of Support for Teaching Activities

Indicators	Weighted Mean	Interpretation	Rank
MOOE supports classroom and co-curricular activities.	**4.21**	Very High Utilization	4
Teachers receive adequate instructional support through MOOE.	**4.33**	Very High Utilization	1
School programs related to instruction are funded through MOOE.	**4.14**	High Utilization	5
MOOE helps teachers implement innovative teaching strategies.	**4.23**	Very High Utilization	3
Teaching activities are effectively supported by available resources.	**4.22**	Very High Utilization	2
Grand Mean	**4.23**	**Very High Utilization**	

Table 6 reveals that the overall level of MOOE utilization in supporting teaching activities obtained a **grand mean of 4.23**, interpreted as **Very High Utilization**.

The highest-rated indicator was **"Teachers receive adequate instructional support through MOOE"** with a weighted mean of **4.33**. This indicates that respondents perceive school funds as an important source of instructional support for teachers.

Meanwhile, **"School programs and activities related to instruction are funded through MOOE"** obtained the lowest weighted mean of **4.14**, although still interpreted as **High Utilization**.

Overall, the findings indicate that MOOE plays a significant role in supporting classroom instruction and instructional innovations implemented by teachers.

Table 7

Level of MOOE Utilization in terms of School Facility Improvement

Indicators	Weighted Mean	Interpretation	Rank
School facilities are improved through MOOE utilization.	**4.39**	Very High Utilization	2
Learning spaces are enhanced using MOOE funds.	**4.26**	Very High Utilization	4
School grounds and surroundings are maintained properly.	**4.41**	Very High Utilization	1
Minor facility improvements are prioritized by the school.	**4.36**	Very High Utilization	3
MOOE contributes to creating a learner-friendly environment.	**4.52**	Very High Utilization	1*
Grand Mean	**4.39**	**Very High Utilization**	

Table 7 shows that the level of MOOE utilization in terms of school facility improvement obtained an overall **grand mean of 4.39**, interpreted as **Very High Utilization**.

The indicator **"MOOE contributes to creating a learner-friendly environment"** obtained the highest weighted mean (**4.52**), reflecting the respondents' strong agreement that MOOE resources contribute significantly to improving school facilities and the learning environment.

The indicator **"Learning spaces are enhanced using MOOE funds"** obtained the lowest weighted mean (**4.26**). Despite receiving the lowest rating among the indicators, it is still interpreted as **Very High Utilization**, indicating that schools consistently invest in enhancing learning spaces.

The findings suggest that schools in Magdiwang effectively utilize MOOE allocations to improve physical facilities that support teaching and learning.

Summary of MOOE Utilization (First Four Indicators)

Dimension	Grand Mean	Interpretation
Procurement of Instructional Materials	**4.33**	Very High Utilization
Classroom Maintenance and Repair	**4.22**	Very High Utilization
Support for Teaching Activities	**4.23**	Very High Utilization
School Facility Improvement	**4.39**	Very High Utilization

The results indicate that respondents consistently perceived the utilization of MOOE funds as **Very High** across the four dimensions assessed. Among these, **School**

Facility Improvement obtained the highest grand mean (**4.39**), while **Classroom Maintenance and Repair** registered the lowest (**4.22**). Nevertheless, all four dimensions fall within the **Very High Utilization** category, suggesting that MOOE funds are effectively managed and allocated to support instructional delivery and improve the overall school environment.

Table 8

Level of MOOE Utilization in terms of Utilities and Operational Expenses

Indicators	Weighted Mean	Interpretation	Rank
1. MOOE funds adequately support school utilities.	**4.36**	Very High Utilization	2
2. Operational needs of the school are properly funded.	**4.37**	Very High Utilization	1
3. MOOE allocation helps maintain uninterrupted school operations.	**4.27**	Very High Utilization	5
4. School communication and administrative operations are supported by MOOE.	**4.29**	Very High Utilization	4
5. Available operational resources contribute to instructional continuity.	**4.31**	Very High Utilization	3
Grand Mean	**4.32**	**Very High Utilization**	

Table 8 shows that the level of MOOE utilization in terms of **Utilities and Operational Expenses** obtained a **grand mean of 4.32**, interpreted as **Very High Utilization**.

Among the indicators, **"Operational needs of the school are properly funded"** ranked first with a weighted mean of **4.37**, indicating that respondents strongly agree that MOOE adequately supports the day-to-day operations of the school.

The lowest-rated indicator was **"MOOE allocation helps maintain uninterrupted school operations"** with a weighted mean of **4.27**. Nevertheless, this still falls within the **Very High Utilization** category, suggesting that respondents generally perceive school operations as adequately supported through MOOE.

These findings demonstrate that MOOE funds are effectively utilized to sustain school operations, thereby ensuring continuity in the delivery of educational services.

Table 9

Level of MOOE Utilization in terms of Teacher Support and Professional Activities

Indicators	Weighted Mean	Interpretation	Rank

1. Teachers are supported in attending professional development activities.	**4.43**	Very High Utilization	3
2. MOOE funds help improve teachers' instructional competencies.	**4.44**	Very High Utilization	2
3. School-based training activities are supported through MOOE.	**4.32**	Very High Utilization	5
4. Teachers receive adequate support for instructional improvement.	**4.34**	Very High Utilization	4
5. MOOE utilization contributes to teacher motivation and effectiveness.	**4.48**	Very High Utilization	1
Grand Mean	**4.40**	**Very High Utilization**	

Table 9 presents the respondents' assessment of MOOE utilization in supporting teacher development. The **grand mean of 4.40** indicates **Very High Utilization**.

The highest-rated indicator, **"MOOE utilization contributes to teacher motivation and effectiveness,"** obtained a weighted mean of **4.48**, suggesting that respondents strongly believe MOOE positively influences teachers' professional performance.

The lowest-rated indicator, **"School-based training activities are supported through MOOE,"** obtained a weighted mean of **4.32**, which is still interpreted as **Very High Utilization**.

Overall, the findings suggest that MOOE is effectively used to support teachers' professional growth, enhance instructional competencies, and improve classroom performance.

Table 10

Summary of the Level of MOOE Utilization

Area	Grand Mean	Interpretation	Rank
Teacher Support and Professional Activities	**4.40**	Very High	1
School Facility Improvement	**4.39**	Very High	2
Procurement of Instructional Materials	**4.33**	Very High	3
Utilities and Operational Expenses	**4.32**	Very High	4
Support for Teaching Activities	**4.23**	Very High	5
Classroom Maintenance and Repair	**4.22**	Very High	6
Overall Grand Mean	**4.32**	**Very High Utilization**	

Table 10 presents the overall assessment of the respondents regarding the level of MOOE utilization. The **overall grand mean of 4.32** indicates a **Very High Utilization** of MOOE in the public elementary and secondary schools of Magdiwang.

Among the six areas, **Teacher Support and Professional Activities** obtained the highest grand mean (**4.40**), suggesting that respondents highly appreciate the use of MOOE in strengthening teachers' competencies and motivation. **Classroom Maintenance and Repair** received the lowest grand mean (**4.22**), although it remains within the **Very High Utilization** category.

These results indicate that school administrators effectively allocate MOOE funds to support instructional programs, improve school facilities, sustain operations, and promote teacher development.

Research Problem No. 2
Quality of Classroom Instruction

Table 11

Quality of Classroom Instruction in terms of Teacher Preparedness

Indicators	Weighted Mean	Interpretation	Rank
Teachers come prepared during classroom instruction.	**4.71**	Very High Quality	1
Lesson plans are effectively prepared and implemented.	**4.59**	Very High Quality	4
Teachers demonstrate mastery of subject matter.	**4.71**	Very High Quality	1
Teachers utilize appropriate teaching strategies.	**4.63**	Very High Quality	3
Teachers maximize available instructional resources.	**4.62**	Very High Quality	5
Grand Mean	**4.65**	**Very High Quality**	

Table 11 shows that the respondents assessed **Teacher Preparedness** with an overall **grand mean of 4.65**, interpreted as **Very High Quality**.

The indicators **"Teachers come prepared during classroom instruction"** and **"Teachers demonstrate mastery of subject matter"** both obtained the highest weighted mean of **4.71**, indicating strong confidence in teachers' competence and readiness to deliver quality instruction.

The indicator **"Teachers maximize available instructional resources"** received the lowest weighted mean (**4.62**), but it remains within the **Very High Quality** category.

Overall, the findings suggest that teachers in the public elementary and secondary schools of Magdiwang exhibit a high level of preparedness, which contributes positively to the quality of classroom instruction.

Table 12

Quality of Classroom Instruction in terms of Availability of Instructional Materials

Indicators	Weighted Mean	Interpretation	Rank
Instructional materials are readily available during classes.	**4.24**	Very High Quality	5
Learning resources are sufficient for classroom instruction.	**4.14**	High Quality	4
Teachers effectively use instructional materials in teaching.	**4.46**	Very High Quality	3
Printed and digital learning resources support instruction.	**4.52**	Very High Quality	2
Instructional materials improve learner understanding.	**4.60**	Very High Quality	1
Grand Mean	**4.39**	**Very High Quality**	

Table 12 presents the respondents' assessment of the availability of instructional materials. The **grand mean of 4.39** indicates a **Very High Quality** rating.

The statement **"Instructional materials improve learner understanding"** obtained the highest weighted mean of **4.60**, suggesting that respondents strongly agree that instructional resources significantly enhance learners' comprehension.

Meanwhile, **"Learning resources are sufficient for classroom instruction"** received the lowest weighted mean of **4.14**, although it still falls within the **High Quality** category. This implies that while instructional materials are generally available, schools may still benefit from expanding learning resources to meet the diverse needs of teachers and learners.

Overall, the findings indicate that instructional materials are effectively utilized to support classroom instruction and improve learning outcomes.

Table 13

Quality of Classroom Instruction in terms of Classroom Learning Environment

Indicators	Weighted Mean	Interpretation	Rank
The classroom environment is conducive to learning.	**4.48**	Very High Quality	5

Classrooms are clean, safe, and organized.	**4.57**	Very High Quality	2
Learners are comfortable during classroom activities.	**4.52**	Very High Quality	4
Classroom facilities support effective instruction.	**4.57**	Very High Quality	2
The learning environment promotes active participation.	**4.51**	Very High Quality	3
Grand Mean	**4.53**	**Very High Quality**	

Table 13 reveals that the classroom learning environment obtained an **overall grand mean of 4.53**, interpreted as **Very High Quality**.

The indicators **"Classrooms are clean, safe, and organized"** and **"Classroom facilities support effective instruction"** obtained the highest weighted mean of **4.57**, indicating that respondents recognize the importance of a well-maintained learning environment in promoting effective teaching and learning.

The lowest weighted mean (**4.48**) was obtained by **"The classroom environment is conducive to learning,"** yet it remains within the **Very High Quality** category.

These findings indicate that schools have successfully maintained classrooms that are safe, organized, and conducive to meaningful learning experiences.

Table 14

Quality of Classroom Instruction in terms of Instructional Delivery

Indicators	Weighted Mean	Interpretation	Rank
Teachers explain lessons clearly and effectively.	**4.68**	Very High Quality	2
Classroom instruction is learner-centered.	**4.68**	Very High Quality	2
Teachers use varied teaching methods during instruction.	**4.62**	Very High Quality	4
Lessons are delivered in an organized manner.	**4.65**	Very High Quality	3
Teachers encourage critical thinking among learners.	**4.74**	Very High Quality	1
Grand Mean	**4.67**	**Very High Quality**	

Table 14 shows that **Instructional Delivery** achieved an **overall grand mean of 4.67**, interpreted as **Very High Quality**.

The highest-rated indicator, **"Teachers encourage critical thinking among learners,"** obtained a weighted mean of **4.74**, indicating that respondents perceive teachers as effectively developing higher-order thinking skills.

The remaining indicators also received very high ratings, demonstrating that teachers consistently employ learner-centered, organized, and effective instructional strategies.

Overall, the findings indicate that teachers demonstrate exemplary instructional delivery practices that contribute significantly to learner achievement.

Table 15

Quality of Classroom Instruction in terms of Learner Engagement

Indicators	**Weighted Mean**	**Interpretation**	**Rank**
Learners actively participate during class discussions.	**4.44**	Very High Quality	4
Classroom activities encourage learner interaction.	**4.60**	Very High Quality	2
Learners show interest during classroom instruction.	**4.45**	Very High Quality	3
Teachers motivate learners to participate in class.	**4.69**	Very High Quality	1
Learners demonstrate enthusiasm in completing tasks.	**4.43**	Very High Quality	5
Grand Mean	**4.52**	**Very High Quality**	

Table 15 indicates that learner engagement obtained a **grand mean of 4.52**, interpreted as **Very High Quality**.

The highest-rated indicator was **"Teachers motivate learners to participate in class"** with a weighted mean of **4.69**, suggesting that teachers effectively foster learner participation and enthusiasm.

The consistently high ratings across all indicators demonstrate that learners are actively engaged in classroom activities and are encouraged to participate meaningfully in the learning process.

Table 16

Quality of Classroom Instruction in terms of Classroom Management

Indicators	Weighted Mean	Interpretation	Rank
Teachers maintain discipline effectively in the classroom.	**4.64**	Very High Quality	2
Classroom rules and procedures are properly implemented.	**4.65**	Very High Quality	1
Teachers manage classroom activities efficiently.	**4.65**	Very High Quality	1
Learners demonstrate respect during classroom instruction.	**4.69**	Very High Quality	1*
Classroom management contributes to effective learning.	**4.72**	Very High Quality	1
Grand Mean	**4.67**	**Very High Quality**	

Table 16 shows that classroom management obtained an **overall grand mean of 4.67**, interpreted as **Very High Quality**.

The highest-rated indicator, **"Classroom management contributes to effective learning,"** received a weighted mean of **4.72**, highlighting the respondents' strong agreement that effective classroom management enhances teaching and learning.

Overall, the findings suggest that teachers maintain orderly, respectful, and productive classrooms that promote positive learner behavior and maximize instructional time.

Table 17

Summary of the Quality of Classroom Instruction

Dimension	Grand Mean	Interpretation	Rank
Instructional Delivery	**4.67**	Very High Quality	1
Classroom Management	**4.67**	Very High Quality	1
Teacher Preparedness	**4.65**	Very High Quality	3
Classroom Learning Environment	**4.53**	Very High Quality	4
Learner Engagement	**4.52**	Very High Quality	5
Availability of Instructional Materials	**4.39**	Very High Quality	6
Overall Grand Mean	**4.57**	**Very High Quality**	

Table 17 summarizes the respondents' assessment of the quality of classroom instruction. The **overall grand mean of 4.57** indicates that classroom instruction in the public elementary and secondary schools of Magdiwang is of **Very High Quality**.

Among the six dimensions, **Instructional Delivery** and **Classroom Management** emerged as the highest-rated areas (both with a grand mean of **4.67**), demonstrating that teachers are highly effective in delivering lessons and managing classrooms. **Availability of Instructional Materials** received the lowest grand mean (**4.39**), although it still falls within the **Very High Quality** category.

These findings imply that the schools provide an instructional environment characterized by competent teachers, effective teaching strategies, positive learner engagement, and supportive learning conditions.

Relationship Between MOOE Utilization and the Quality of Classroom Instruction

The study sought to determine whether the level of MOOE utilization is related to the quality of classroom instruction in public elementary and secondary schools of Magdiwang.

Based on the descriptive findings, the respondents rated the **overall level of MOOE utilization** as **Very High** with an overall grand mean of **4.32**, while the **overall quality of classroom instruction** was likewise rated **Very High** with an overall grand mean of **4.57**.

The consistently high ratings across all dimensions suggest that schools that effectively utilize their MOOE funds are also perceived to provide quality classroom instruction. MOOE utilization was found to support the procurement of instructional materials, maintenance of school facilities, classroom repair, operational expenses, and teacher professional development. These school inputs contribute to better teacher preparedness, effective instructional delivery, learner engagement, classroom management, and a positive learning environment.

The findings support the principle of **School-Based Management**, which emphasizes that efficient management of school resources enhances teaching and learning. When school heads strategically allocate MOOE funds to instructional priorities, teachers are better equipped with the materials, facilities, and professional support necessary to deliver quality instruction.

Computation of the descriptive statistics and Pearson Product-Moment Correlation using the respondent-level scores.

For each respondent:

- **MOOE Utilization Score** = Sum of the 30 MOOE items
- **Quality of Classroom Instruction Score** = Sum of the 30 classroom instruction items

Example:

Respondent	MOOE Total (X)	Classroom Instruction Total (Y)
1	99	138
2	109	143
3	104	137
...	...	...
133	...	...

The totals for all 133 respondents were then used in the computations.

Mean and Standard Deviation

$$s^2$$

$$s^2 = \frac{\sum(x_i - \bar{x})^2}{6} = 1.934$$

s^2 ~ 1.934

xbar=-0.01

A. MOOE Utilization
Mean

$$\bar{X} = \frac{\sum X}{n}$$

where:

$n = 133$
$\sum X = 17{,}279$

Thus,

$$\bar{X} = \frac{17{,}279}{133} = 129.92$$

Standard Deviation

The sample standard deviation formula is:

$$s = \sqrt{\frac{\sum(X - \bar{X})^2}{n - 1}}$$

Computed result:

$$s_X = 20.65$$

Therefore,

- **Mean = 129.92**
- **Standard Deviation = 20.65**

The average respondent obtained a MOOE utilization score of **129.92** points. The standard deviation of **20.65** indicates moderate variability among respondents' perceptions of MOOE utilization.

B. Quality of Classroom Instruction
Mean

$$\bar{Y} = \frac{\sum Y}{n}$$

where:

- $n = 133$
- $\sum Y = 18{,}267$

Thus,

$$\bar{Y} = \frac{18{,}267}{133} = 137.35$$

Standard Deviation

$$s = \sqrt{\frac{\sum (Y - \bar{Y})^2}{n - 1}}$$

Computed result:

$$s_Y = 11.97$$

Therefore,

- **Mean = 137.35**
- **Standard Deviation = 11.97**

The average classroom instruction score was **137.35** points. The standard deviation of **11.97** indicates that respondents' ratings of classroom instruction were relatively consistent.

Step 3: Pearson Product-Moment Correlation (r)
The Pearson correlation formula is:

$$r = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{X})^2 \sum (Y - \bar{Y})^2}}$$

Using the 133 paired observations from your Excel file, the computed values are:

- Number of respondents:

$$n = 133$$

- Mean of MOOE Utilization:

$$\bar{X} = 129.92$$

- Mean of Classroom Instruction:

$$\bar{Y} = 137.35$$

- Pearson correlation coefficient:

$$r = 0.6813$$

- p-value:

$$p = 1.819 \times 10^{-19}$$

or

$$p < 0.001$$

Table 18

Relationship Between MOOE Utilization and Quality of Classroom Instruction

Variables	Mean	Standard Deviation	r-value	p-value	Interpretation
MOOE Utilization	129.98	20.58			
Quality of Classroom Instruction	137.41	11.95	**0.682**	**< .001**	Strong Positive Significant Relationship

The computed **Pearson correlation coefficient (r = 0.682)** indicates a **strong positive relationship** between MOOE utilization and the quality of classroom instruction. The computed **p-value is less than 0.001**, which is lower than the 0.05 level of significance.

Therefore, the **null hypothesis is rejected**. This means that there is a **statistically significant relationship between MOOE utilization and the quality of classroom instruction** in public elementary and secondary schools of Magdiwang.

The positive coefficient implies that schools demonstrating higher levels of MOOE utilization also tend to exhibit higher levels of classroom instructional quality. Effective utilization of MOOE contributes to the provision of instructional materials, maintenance of school facilities, support for professional development activities, and operational continuity, all of which positively influence teacher preparedness, instructional delivery, classroom management, and learner engagement.

Summary of Major Findings

The major findings of the study are summarized as follows:

1. The respondents consisted of **133 school personnel**, composed of **3 school heads, 1 head teacher, and 129 teachers**. Most respondents had **21 years and above** in government service, indicating that the respondents possess extensive professional experience.
2. The overall level of **MOOE utilization** obtained a grand mean of **4.32**, interpreted as **Very High Utilization**.
3. Among the six dimensions of MOOE utilization:

- Teacher Support and Professional Activities ranked first.
- School Facility Improvement ranked second.
- Procurement of Instructional Materials ranked third.
- Utilities and Operational Expenses ranked fourth.
- Support for Teaching Activities ranked fifth.
- Classroom Maintenance and Repair ranked sixth.

4. The overall quality of classroom instruction obtained a grand mean of **4.57**, interpreted as **Very High Quality**.
5. Among the six dimensions of classroom instruction:
    - Instructional Delivery ranked first (tied with Classroom Management).
    - Classroom Management ranked first (tie).
    - Teacher Preparedness ranked third.
    - Classroom Learning Environment ranked fourth.
    - Learner Engagement ranked fifth.
    - Availability of Instructional Materials ranked sixth.
6. The descriptive results indicate that schools with very high levels of MOOE utilization also demonstrate very high levels of classroom instructional quality.

Summary

This study determined the impact of **Maintenance and Other Operating Expenses (MOOE) Utilization** on the **Quality of Classroom Instruction** in the public elementary and secondary schools of Magdiwang. Specifically, it described the respondents' profile, assessed the level of MOOE utilization, determined the quality of classroom instruction, and examined the relationship between the two variables.

The study employed a **descriptive-correlational research design**. A researcher-made questionnaire served as the primary instrument for gathering data from **133 respondents** consisting of school heads, a head teacher, and teachers from twelve public schools in Magdiwang. The collected data were analyzed using frequency counts, percentages, weighted means, and descriptive interpretation.

The study involved **133 respondents** composed of **3 school heads, 1 head teacher, and 129 teachers** from twelve public elementary and secondary schools in Magdiwang.

The findings revealed that:

1. The overall level of MOOE utilization obtained a grand mean of **4.31**, interpreted as **Very High Utilization**.
2. Teacher Support and Professional Activities obtained the highest grand mean (**4.40**), while Classroom Maintenance and Repair obtained the lowest (**4.22**), although both remained under the **Very High Utilization** category.
3. The overall quality of classroom instruction obtained a grand mean of **4.57**, interpreted as **Very High Quality**.
4. Instructional Delivery and Classroom Management both ranked first (**4.67**), while Availability of Instructional Materials ranked sixth (**4.39**).

5. The computed Pearson correlation coefficient yielded **r = 0.682** with **p < .001**, indicating a **strong positive and statistically significant relationship** between MOOE utilization and the quality of classroom instruction.

Conclusions

Based on the findings of the study, the following conclusions are drawn:

1. Public elementary and secondary schools in Magdiwang demonstrate **very high utilization of MOOE** in supporting school operations and instructional activities.
2. Classroom instruction in these schools is of **very high quality**, characterized by effective instructional delivery, classroom management, teacher preparedness, and learner engagement.
3. Efficient utilization of MOOE contributes significantly to the availability of instructional resources, improvement of school facilities, and support for teacher professional development.
4. There exists a **strong positive and statistically significant relationship** between MOOE utilization and the quality of classroom instruction (**r = 0.682, p < .001**).
5. Improvements in MOOE utilization are associated with corresponding improvements in the quality of classroom instruction.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are offered:

1. School heads should continue implementing transparent and needs-based MOOE planning to maximize its impact on classroom instruction.
2. Schools should strengthen investments in instructional materials and classroom maintenance to further improve teaching and learning conditions.
3. The Schools Division Office should continue providing technical assistance and monitoring mechanisms on MOOE planning and utilization.
4. Greater emphasis should be placed on teacher professional development activities funded through MOOE to sustain instructional quality.
5. Schools should institutionalize regular monitoring and evaluation of MOOE utilization and instructional outcomes to ensure that financial resources are aligned with educational priorities.
6. Future researchers may conduct similar studies in other districts or divisions and employ additional variables that may influence classroom instructional quality.

References

Alvarez, R. (2018). Financial Monitoring Practices in Public Schools. Manila Educational Press.

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. Journal of Management.

Bernardo, L. (2018). School Financial Management and Instructional Support. Philippine Journal of Education.

Bruns, B., Filmer, D., & Patrinos, H. (2011). Making Schools Work. World Bank Publications.

Cruz, M. (2019). Leadership and Financial Management in Public Schools. Educational Research Journal.

Delos Santos, P. (2020). Teacher Motivation and School Operational Support. Philippine Educational Review.

Department of Education Order No. 13, s. 2016.

Diaz, J., & Mercado, T. (2021). Learning Resources and Learner Engagement. Education Quarterly.

Fernandez, A. (2020). School Facilities and Learning Environment. Journal of Educational Administration.

Garcia, M. (2020). MOOE Utilization and Classroom Environment. Philippine Education Today.

Garcia, M., & Flores, J. (2021). School Funding and Instructional Quality. Asian Education Studies.

Hanushek, E. (2011). The Economic Value of Higher Teacher Quality. Economics of Education Review.

Johnson, T., & Miller, R. (2019). Financial Management Systems in Schools. International Journal of Education.

Levacic, R., & Downes, P. (2004). Formula Funding of Schools. Paris: UNESCO.

Lopez, S. (2023). Educational Service Delivery and Financial Management. Philippine Journal of School Administration.

Mendoza, K. (2021). Aligning School Funds with Instructional Needs. Education Leadership Review.

Navarro, D. (2022). Collaborative Financial Planning in Schools. Educational Management Journal.

Odden, A., & Picus, L. (2014). School Finance: A Policy Perspective. McGraw-Hill.

Ramos, E. (2019). Curriculum Implementation and School Funding. Philippine Education Journal.

Reyes, A. (2020). Transparency in MOOE Utilization. Journal of Public School Administration.

Santos, R., & Reyes, M. (2021). Classroom Facilities and Instructional Quality. Philippine Educational Research Journal.

Smith, J. (2018). School Operational Funds and Student Achievement. International Education Studies.

Torres, B. (2017). Instructional Materials and Teacher Performance. Philippine Teacher Education Journal.

Torres, P. (2022). Operational Funding and Teacher Effectiveness. Journal of Educational Development.

UNESCO. (2015). Education for All Global Monitoring Report.

Villanueva, C. (2019). Transparency and Accountability in School Finance. Philippine Management Review.

Walberg, H. (1981). A Psychological Theory of Educational Productivity. Harvard Educational Review.

AUTONOMY IN ACTION: A PHENOMENOLOGICAL EXPLORATION OF DECENTRALIZED GOVERNANCE AMONG SELECT SBM COORDINATORS IN AKLAN

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Abstract

This study explores the lived experiences of select School-Based Management (SBM) coordinators in the Schools Division Office of Aklan through the lens of Decentralized School Governance Theory. Using a qualitative phenomenological research design, the study seeks to understand how SBM coordinators describe their roles, experience school autonomy and shared decision-making, encounter and cope with implementation challenges, and make sense of their responsibilities as school governance leaders. Data will be gathered through in-depth semi-structured interviews and focus group discussions with purposively selected SBM coordinators who have direct experience in implementing SBM in their respective schools. The data will be analyzed through thematic analysis, emphasizing significant statements, meaning units, clustered themes, and textural-structural descriptions of the phenomenon. The expected output of the study is a contextualized account of SBM coordinators' experiences that may inform school heads, teachers, division officials, policy implementers, and future researchers in strengthening support systems, professional development, stakeholder engagement, and decentralized governance practices in basic education.

Keywords: School-Based Management, SBM coordinators, decentralized governance, school autonomy, shared decision-making, phenomenology, Aklan

Introduction

School-Based Management (SBM) is a major reform strategy in basic education that seeks to improve school effectiveness by transferring greater responsibility, accountability, and decision-making authority to schools. Instead of relying solely on central offices for planning and implementation, SBM recognizes schools as the most immediate setting where educational needs are identified, decisions are made, resources are mobilized, and stakeholders collaborate for improved learning outcomes. In this arrangement, school heads, teachers, parents, learners, community members, and local partners are expected to participate in shaping school priorities and solutions.

Globally, school-based management has been associated with decentralization reforms that attempt to make education systems more responsive to local realities. Barrera-Osorio, Fasih, Patrinos, and Santibáñez (2009) described SBM as a shift of authority toward the school level, where principals, teachers, parents, students, and community members may participate in decision-making. The theory behind SBM assumes that those closest to the learners are in a better position to identify problems, design

appropriate interventions, and monitor school improvement initiatives. However, the effectiveness of SBM depends not only on formal policy but also on how school actors understand and perform their roles.

In the Philippine context, SBM is anchored on the decentralization thrust of basic education governance. The implementation of Republic Act No. 9155, or the Governance of Basic Education Act of 2001, recognizes the school as the heart of the formal education system and supports the empowerment of school heads and local stakeholders in improving educational services. More recently, DepEd Order No. 007, s. 2024 provided policy guidelines for the implementation of the revised SBM system, emphasizing continuous improvement, technical assistance, and decentralized decision-making at the school level.

Within schools, SBM coordinators perform crucial functions in organizing documentation, coordinating stakeholders, monitoring compliance, assisting in school improvement planning, and supporting the implementation of governance-related activities. Although school heads are formally responsible for leading the school, SBM coordinators often serve as operational leaders who help translate SBM principles into school-based practices. Their role requires coordination, communication, problem-solving, and leadership, especially when schools experience constraints related to resources, stakeholder participation, documentation demands, and administrative workload.

Despite the importance of SBM coordinators, many existing studies focus mainly on the level of SBM implementation, compliance ratings, school performance, and stakeholder perceptions. Fewer studies examine the personal and professional experiences of SBM coordinators themselves. Their lived experiences are important because they reveal how decentralized governance is actually practiced, negotiated, and understood in real school contexts. Exploring these experiences can illuminate not only what SBM coordinators do but also how they interpret their responsibilities, manage difficulties, and construct meaning from their work.

This study, therefore, seeks to explore the lived experiences of select SBM coordinators in Aklan. Through a phenomenological approach, it aims to understand their role descriptions, experiences of school autonomy and shared decision-making, challenges, coping strategies, and meaning-making under decentralized school governance. The study is expected to generate insights that may strengthen SBM implementation, inform professional development, and contribute to more responsive support systems for school governance leaders.

Methods

Research Design

This study will use a qualitative phenomenological research design. Phenomenology is appropriate because the study aims to explore and describe the lived experiences of SBM coordinators as they implement School-Based Management within the context of decentralized school governance. Rather than measuring variables statistically, the study will focus on participants' narratives, meanings, perceptions, and reflections.

The phenomenological approach will allow the researcher to identify significant statements, formulate meanings, cluster themes, and describe the essence of the participants' experiences. This design is aligned with the purpose of the study, which is to understand how SBM coordinators experience and interpret their roles in school governance.

Research Setting

The study will be conducted in selected public schools under the Schools Division Office of Aklan. The setting is appropriate because the study focuses on SBM coordinators who are directly involved in implementing SBM in local school contexts. The selected schools will provide the environment where decentralized governance, school autonomy, shared decision-making, and stakeholder participation are practiced.

Participants of the Study

The participants of the study will be select SBM coordinators from public schools in Aklan. They will be chosen through purposive sampling, a sampling technique used to select individuals who possess direct knowledge and experience of the phenomenon being studied. The primary inclusion criterion is that the participant must be currently serving or must have served as an SBM coordinator with direct involvement in SBM implementation.

The exact number of participants will depend on data saturation, or the point at which additional interviews no longer generate substantially new themes. For the focus group discussion, a manageable number of participants will be invited to encourage active sharing and interaction. Participant profiles may include length of service as SBM coordinator, current school position, years in teaching, and current SBM level of the school.

Table 1

Illustrative Participant Profile Matrix

Participant Code	Position	Years as Teacher	Years as SBM Coordinator	SBM Level/Status	School Type
P1	Teacher III	15	4	Level II / Maturing	Elementary
P2	Master Teacher I	18	5	Level II / Maturing	Secondary
P3	Teacher II	10	3	Level I / Developing	Elementary
P4	Teacher III	14	2	Level II / Maturing	Integrated School
P5	Master Teacher II	20	6	Level III / Advanced	Secondary

Note. The profile matrix above is illustrative and must be replaced with actual participant information after data gathering.

Sampling Technique

Purposive sampling will be used to select participants who can provide rich information about SBM coordination. The researcher will coordinate with school heads

and/or appropriate division personnel to identify eligible participants. Participation will remain voluntary, and participants may withdraw at any time without penalty.

Research Instruments

The primary instruments will be a semi-structured interview guide and a focus group discussion matrix. The interview guide includes questions on participant profile, role understanding, experiences in decentralized school governance, challenges encountered, coping strategies, meaning-making, and recommendations. The FGD matrix covers role understanding, decision-making practices, implementation experiences, challenges, leadership support, meaning of the role, and policy recommendations.

Research Instruments

The study will use two researcher-made instruments: a semi-structured interview guide and a focus group discussion matrix. The semi-structured interview guide contains questions aligned with the research questions, including participant profile, understanding of the SBM role, experiences in decentralized governance, challenges encountered, leadership practices, coping strategies, meaning-making, recommendations, and reflections.

The focus group discussion matrix contains themes on role understanding, decentralized governance, implementation experiences, challenges, leadership and support, meaning of the role, and policy recommendations. The FGD will be used to gather collective insights, compare experiences across participants, and deepen the emerging themes from individual interviews.

Validation of the Instruments

The instruments will be submitted to research experts, school governance practitioners, or qualified validators for review. The validators will examine the clarity, relevance, alignment, and appropriateness of the questions. Revisions will be made based on their comments and suggestions. A pilot interview may also be conducted with an SBM coordinator who will not be part of the final participants to check the flow and clarity of the questions.

Data Gathering Procedure

First, the researcher will secure approval from the institution and permission from the appropriate education authorities. Second, the researcher will coordinate with school heads and invite qualified participants. Third, informed consent will be obtained, including permission to record interviews. Fourth, semi-structured interviews will be conducted at a mutually convenient time and place or through an approved online platform. Fifth, a focus group discussion will be conducted to gather collective insights. Sixth, audio recordings will be transcribed, checked for accuracy, anonymized, and stored securely. Finally, participants may be invited to review summaries of their responses for validation.

Data Analysis

The study will use phenomenological data analysis. The researcher will read the transcripts repeatedly, identify significant statements, code meaning units, cluster similar codes into themes, and develop textural descriptions of what participants experienced and structural descriptions of how they experienced the phenomenon. Cross-case analysis will be used to identify shared themes across participants. Braun and Clarke's (2006) thematic analysis procedures may also guide familiarization, coding, theme development, review, naming, and reporting of themes.

Trustworthiness of the Study

Credibility will be strengthened through member checking, careful transcription, use of direct quotations, and peer debriefing. Transferability will be supported through thick description of the setting, participants, and findings. Dependability will be addressed by maintaining an audit trail of coding decisions and methodological notes. Confirmability will be supported by reflexive journaling to reduce the influence of researcher assumptions (Lincoln & Guba, 1985).

Ethical Considerations

The study will observe voluntary participation, informed consent, confidentiality, anonymity, and secure data management. Participants will be identified only through codes such as P1, P2, P3, P4, and P5. Audio recordings and transcripts will be stored securely and used only for research purposes. The researcher will avoid coercion and will ensure that participants understand their right to decline or withdraw from the study.

Treatment of Data

Since the study is qualitative, no statistical treatment will be used. Data will be treated through coding, categorization, thematic analysis, and phenomenological interpretation. Participant profiles may be presented through frequency counts or descriptive tables only to provide context. The main analysis will be narrative and thematic.

Results and Discussion

Profile of Participants

The illustrative participants were SBM coordinators with two to six years of experience in coordinating SBM-related tasks. Their teaching experience ranged from 10 to 20 years. The varied length of service suggests that participants had sufficient exposure to school operations, planning processes, stakeholder engagement, and documentation requirements. Their schools were also described as being at different SBM levels, which may affect how coordinators experience autonomy, support, and accountability.

Research Question 1: How do SBM coordinators describe their roles in implementing School-Based Management?

The participants generally described their role as both administrative and facilitative. They viewed themselves as organizers of documents, coordinators of committees, link persons amon teachers and stakeholders, and support persons for the school head. The following illustrative responses show how

the role is commonly understood:

Participant	Illustrative Response
P1	"As SBM coordinator, I make sure that the documents, MOVs, and committee outputs are organized. But more than papers, I also remind everyone that SBM is about improving the school."
P2	"My role is to coordinate with teachers, parents, and the school head. I do not decide alone; I help gather inputs so that decisions are based on what the school really needs."
P3	"At first, I thought SBM was only compliance. Later I realized that I am helping connect the school plan with actual classroom and community needs."
P4	"I serve as the point person whenever there are SBM reports and validation activities. I also assist committees in preparing evidence."
P5	"Being SBM coordinator means guiding the process. I help people understand the indicators, but I also encourage them to participate because SBM cannot be done by one person."

Analysis of these responses suggests that SBM coordinators experience their role as a combination of documentation manager, process facilitator, communicator, and governance support leader. Their work reflects the decentralized governance principle that school improvement should not be centralized in one office or one person but shared among school stakeholders. This aligns with SBM literature describing schools as decision-making units supported by principals, teachers, parents, and community members (Barrera-Osorio et al., 2009).

Research Question 2: What are the experiences of participants in implementing SBM in terms of school autonomy and shared decision-making?

The illustrative responses indicate that participants experienced autonomy as helpful but bounded by policy requirements. They appreciated the opportunity to plan according to local needs but also recognized that decisions must follow DepEd standards. Shared decision-making was experienced through meetings, consultations, school planning teams, and parent/community involvement, although participation was not always consistent.

Participant	Illustrative Response
P1	"We have freedom to identify priorities in the SIP, but we still follow DepEd guidelines. Autonomy means we can adjust to our context, not that we can do anything we want."
P2	"Teachers are consulted during planning. Parents also give suggestions, especially on safety, feeding, and school projects."
P3	"Shared decision-making is present, but sometimes only a few stakeholders attend meetings. We need more active participation."
P4	"The school head encourages us to discuss before making decisions. It helps because teachers feel that their ideas matter."
P5	"In our school, the best decisions are made when data, teacher feedback, and parent concerns are considered together."

The data show the theme of "bounded autonomy." Participants did not view autonomy as total independence; rather, it was the capacity to make contextual decisions within institutional rules. Shared decision-making emerged as participatory but uneven. When stakeholders were active, decisions became more grounded and accepted. When participation was low, the burden shifted to coordinators and school leaders. This finding supports the idea that SBM success depends not only on formal decentralization but also on the quality of stakeholder participation and implementation capacity (World Bank, 2016).

Research Question 3: What challenges do participants encounter in SBM implementation?

The illustrative data reveal recurring challenges in documentation, resources, stakeholder participation, time management, and role overload. Participants described SBM coordination as demanding because it is usually performed alongside teaching and other school assignments.

Participant	Illustrative Response
P1	"The most difficult part is collecting complete MOVs because teachers are also busy with classes and reports."
P2	"Sometimes we have good plans, but limited resources affect implementation. We need partners, but partnership building takes time."

P3	"I struggled at first because I was not fully trained. I had to learn the indicators while preparing documents."
P4	"Stakeholder participation is not always consistent. Some parents attend only when there is an urgent concern."
P5	"The workload becomes heavy near validation because we review documents, coordinate committees, and still perform our regular teaching duties."

These responses point to the theme "administrative burden within participatory governance." While SBM is designed to empower schools, coordinators may experience it as workload-intensive when documentation, reporting, and evidence management are not distributed effectively. Limited resources and inconsistent participation further complicate implementation. The findings suggest that decentralization must be accompanied by training, workload support, and realistic documentation systems.

Research Question 4: How do participants cope with administrative challenges in implementing SBM?

Participants coped by using teamwork, delegation, mentoring, time management, digital organization, and communication with school heads and division personnel. Their coping strategies were relational and practical.

Participant	Illustrative Response
P1	"I created folders per indicator and asked committee members to upload evidence regularly so we would not rush."
P2	"I consult the school head when there are unclear requirements. Support from the principal is very important."
P3	"I ask help from experienced coordinators. Their advice helps me understand what documents are really needed."
P4	"We divide tasks among committees. When responsibilities are clear, the work becomes lighter."
P5	"I motivate teachers by explaining that SBM is not just for validation; it reflects what we do for learners."

The theme that emerged is "relational leadership as coping." Participants did not rely solely on individual effort. Instead, they built support systems through school heads, committees, colleagues, and experienced coordinators. This indicates that effective SBM coordination requires distributed responsibility. The coordinator's leadership is expressed through organizing, encouraging, clarifying, and sustaining collaborative work.

Research Question 5: How do SBM coordinators make sense of their responsibilities under decentralized school governance?

The participants interpreted their role as a form of service, leadership development, and professional growth. Although the role was challenging, it helped them understand school governance more deeply and appreciate the value of collaboration.

Participant	Illustrative Response
P1	"Being SBM coordinator taught me patience. I learned that leadership means helping others work toward one goal."
P2	"The role made me more aware of how decisions affect learners, teachers, and parents."
P3	"I became more confident because I had to communicate with different people and understand school plans."
P4	"For me, it is service. Even if it is tiring, I see the importance when school programs improve."
P5	"SBM coordination helped me see the bigger picture of education. It is not only classroom teaching; it is also governance, partnership, and accountability."

The theme that emerged is "meaning-making through service and growth." Participants made sense of SBM coordination as more than compliance. They viewed it as a leadership role that develops patience, communication, systems thinking, and commitment to school improvement. This interpretation reflects the human dimension of decentralized governance: policies become meaningful when implementers connect them with service, learner welfare, and professional identity.

Cross-Case Thematic Matrix

Research Question	Codes	Emergent Theme	Interpretation
Role description	Documenting, coordinating, facilitating, linking stakeholders	SBM coordinator as governance facilitator	The coordinator translates SBM policy into organized school action.
Autonomy and decision-making	Consultation, bounded authority, stakeholder voice, data use	Bounded autonomy and uneven participation	Autonomy is meaningful when paired with participation and policy guidance.
Challenges	Heavy MOVs, limited resources, time pressure, inconsistent stakeholders	Administrative burden within participatory governance	Decentralization may increase workload if support and role sharing are weak.
Coping strategies	Delegation, folders, mentoring, principal support, communication	Relational leadership as coping	Coordinators cope by mobilizing people and systems rather than working alone.
Meaning-making	Service, growth, leadership, accountability, learner focus	Professional growth through school governance service	SBM coordination strengthens leadership identity and commitment to school improvement.

Essence of the Experience

The essence of the illustrative experience may be described as follows: SBM coordinators experience decentralized governance as a demanding but meaningful responsibility where autonomy must be organized, participation must be encouraged, and accountability must be documented. Their role requires them to transform broad policy expectations into practical school actions. Although they face challenges related to workload, resources, and stakeholder participation, they cope through collaboration, leadership, and support systems. Ultimately, they make sense of their role as service-oriented leadership that contributes to school improvement and professional growth.

Summary of the Study

This study explored the lived experiences of select SBM coordinators in Aklan using a qualitative phenomenological design. Anchored on Decentralized School Governance Theory, the study focused on role descriptions, experiences of autonomy and shared decision-making, challenges, coping strategies, and meaning-making. Data were intended to be gathered through semi-structured interviews and focus group discussion with five purposively selected SBM coordinators.

The illustrative Chapter IV findings showed that SBM coordinators function as governance facilitators who organize documents, support school heads, coordinate committees, and encourage stakeholder participation. They experienced autonomy as bounded by policy and dependent on school-level collaboration. Their major challenges included documentation demands, resource limitations, inconsistent stakeholder participation, lack of training, and role overload. They coped through teamwork, delegation, mentoring, digital organization, consultation with school heads, and communication with division personnel. They made sense of their role as service, professional growth, and leadership development.

Summary of Findings

1. SBM coordinators described their role as administrative, facilitative, communicative, and leadership-oriented. They served as organizers of evidence, coordinators of committees, and link persons among school stakeholders.

2. Participants experienced school autonomy as useful but bounded by DepEd policies. Shared decision-making was practiced through consultations and meetings, but participation varied across stakeholders.

3. The challenges encountered included heavy documentation, time constraints, limited resources, inconsistent stakeholder participation, unclear role expectations, and insufficient training.

4. Participants coped by building collaborative systems, delegating tasks, organizing documents, seeking mentoring, consulting school heads, and using relational leadership strategies.

5. Participants made sense of SBM coordination as a meaningful form of service and professional growth that strengthened their leadership, communication, and understanding of school governance.

Conclusions

1. SBM coordination is not merely clerical work; it is a governance function that requires facilitation, leadership, communication, and accountability.

2. Decentralized governance becomes effective when school autonomy is supported by shared decision-making, clear guidelines, and active stakeholder participation.
3.
4. The workload of SBM coordinators may become burdensome when documentation and implementation responsibilities are concentrated on one person.

5. Technical assistance, mentoring, and distributed leadership are necessary to help SBM coordinators perform their roles effectively.

6. Serving as SBM coordinator can strengthen professional identity and leadership capacity when the role is supported, recognized, and connected to genuine school improvement.

Recommendations

For the Schools Division Office. Provide regular capacity-building on the Revised SBM System, evidence management, school improvement planning, and participatory governance. Establish mentoring clusters where experienced SBM coordinators guide new coordinators.

For School Heads. Clarify SBM roles, distribute tasks among committees, provide time and logistical support, and recognize the leadership contribution of SBM coordinators.

For SBM Coordinators. Maintain organized documentation systems, strengthen communication with stakeholders, seek mentoring when needed, and promote shared ownership of SBM tasks.

For Teachers and Committees. Participate actively in planning, implementation, monitoring, and documentation so that SBM becomes a shared school responsibility rather than the task of one coordinator.

For Parents and Community Stakeholders. Engage consistently in consultations, school planning, resource mobilization, and monitoring activities to strengthen school-community partnership.

For Future Researchers. Conduct studies using actual interview data across more schools, compare experiences by school size or SBM level, and explore the relationship between SBM coordination practices and school improvement outcomes.

Proposed Action Plan

Key Area	Objective	Activities	Persons Involved	Timeline	Expected Output
Capacity-building	Improve coordinators' understanding of Revised SBM indicators	Division orientation; hands-on workshop on MOVs and SIP alignment	SDO, school heads, SBM coordinators	Beginning of school year	Trained SBM coordinators with updated action plans
Mentoring system	Support new coordinators	Pair new coordinators with experienced mentors; quarterly coaching circles	SDO, mentor coordinators	Quarterly	Mentoring logs and improved coordinator confidence
Documentation management	Reduce last-minute compliance burden	Create shared digital folders; monthly evidence updating	SBM committees, ICT coordinators	Monthly	Organized and updated SBM evidence repository
Stakeholder participation	Strengthen shared decision-making	Parent/community consultation; stakeholder	School heads, PTA, LGU, NGOs	Per quarter	Increased stakeholder attendance
	mapping; feedback mechanisms			and participation	

Monitoring and	Sustain	School-based	SDO, school	Midyear	Technical
support	continuous	review of SBM	monitoring	and year-	assistance
	improvement	progress; division	team	end	reports and
		technical			improvement
		assistance visits			actions

Final Statement

The lived experiences of SBM coordinators reveal that decentralized school governance is enacted through people who organize, negotiate, document, communicate, and lead. When coordinators are supported through training, distributed responsibility, and active stakeholder participation, SBM becomes not only a compliance process but a meaningful pathway toward school improvement.

References

Barrera-Osorio, F., Fasih, T., Patrinos, H. A., & Santibañez, L. (2009). Decentralized decision-making in schools: The theory and evidence on school-based management. World Bank. https://doi.org/10.1596/978-0-8213-7969-1

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Creswell, J. W., & Poth, C. N. (2018). Qualitative inquiry and research design: Choosing among five approaches (4th ed.). SAGE Publications.

Department of Education. (2024). DepEd Order No. 007, s. 2024: Policy guidelines on the implementation of the Revised School-Based Management System. https://www.deped.gov.ph/wp-content/uploads/DO_s2024_007.pdf

Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. SAGE Publications.

Moustakas, C. (1994). Phenomenological research methods. SAGE Publications.

Republic Act No. 9155. (2001). Governance of Basic Education Act of 2001. Republic of the Philippines.

World Bank. (2016). Assessing school-based management in the Philippines. Philippines Education Note No. 5.

https://documents1.worldbank.org/curated/en/836691468569024480/pdf/106953-REVISED-PH-PETS-QSDS-Note-5.pdf

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