

Effectiveness of a Strategic Intervention Material in Enhancing Financial Literacy and Budgeting Skills of Learners

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ABSTRACT

This study determined the effectiveness of the Strategic Intervention Material (SIM) titled *Badyet Ko, Buhay Ko!* in enhancing the financial literacy and budgeting skills of Grade 9 Araling Panlipunan learners. The study used a quantitative action research approach with a quasi-experimental pre-test and post-test control group design. Learners with moderate baseline scores were selected and randomly assigned to the control and experimental groups. The control group received usual classroom instruction, while the experimental group received the same competencies with the support of the contextualized SIM. Data were gathered using a validated 30-item multiple-choice test aligned with Araling Panlipunan Grade 9

competencies on income, consumption, savings, needs and wants, and basic budgeting. The data were analyzed using mean, standard deviation, frequency distribution, paired-samples t-test, and independent-samples t-test at the 0.05 level of significance. Findings showed that both groups had developing financial literacy and budgeting skills before the intervention, with no significant difference in their pre-test scores. After the intervention, both groups improved; however, the experimental group obtained a higher post-test mean score ($M = 25.29$, $SD = 1.49$) than the control group ($M = 19.07$, $SD = 1.07$). Significant differences were found between pre-test and post-test scores within both groups and between the post-test scores and mean gain scores of the control and experimental groups. These results confirmed that *Badyet Ko, Buhay Ko!* was effective in enhancing learners' financial literacy and budgeting skills. The study implies that contextualized and learner-centered SIMs may strengthen practical financial education in Araling Panlipunan and support learners in applying budgeting concepts to real-life situations.

Keywords: *financial literacy, budgeting skills, strategic intervention material, Araling Panlipunan, quasi-experimental design, learner-centered instruction*

INTRODUCTION

Financial literacy has become an essential life skill in an increasingly complex economic environment. It enables learners to make informed decisions on budgeting, saving, spending, and responsible money management. Developing these competencies during adolescence is important because financial habits formed at an early age may influence financial behavior in adulthood. Internationally, the OECD (2020a, 2020b, 2023) emphasized that financial education must go beyond conceptual knowledge and should help learners apply financial concepts in practical situations.

In the Philippines, financial literacy among young learners remains a continuing educational concern. The Bangko Sentral ng Pilipinas (2021, 2023, 2024) highlighted the need to strengthen youth

financial education, particularly in budgeting, saving, and money management. In response, the Department of Education adopted the Basic Education Financial Education Policy through DepEd Order No. 022, s. 2021, which supports the integration of financial education across learning areas, including Araling Panlipunan. However, classroom implementation continues to face challenges, especially when lessons remain abstract, theory-driven, or unsupported by localized instructional materials (Barrot et al., 2022; Benitez et al., 2024).

At Kapatagan National High School in the Schools Division of Digos City, preliminary classroom observations suggested that some Grade 9 learners struggled with practical budgeting skills, such as distinguishing needs from wants, prioritizing expenses, and creating simple personal budgets. These concerns reflect the wider gap between financial literacy policy and classroom-level application. Since Araling Panlipunan includes topics on income, consumption, savings, and responsible decision-making, it provides a meaningful venue for teaching financial literacy as both an academic and life skill.

To address this instructional gap, the researcher developed *Badyet Ko, Buhay Ko!*, a contextualized Strategic Intervention Material designed to help Grade 9 learners apply financial literacy concepts through guided activities, real-life budgeting scenarios, and reflective tasks. The study therefore examined whether the use of the SIM could significantly enhance the financial literacy and budgeting skills of learners compared with usual classroom instruction. Specifically, the study determined learners' pre-intervention performance, compared the pre-test scores of the control and experimental groups, assessed post-intervention performance, determined within-group improvement, and tested the difference between the post-test and mean gain scores of the two groups.

Literature Review

Financial Literacy and Budgeting Skills in Araling Panlipunan

Financial literacy refers to the knowledge and application of financial concepts such as budgeting, saving, consumption, and responsible decision-making (OECD, 2020a). Within Araling Panlipunan, financial literacy supports the development of economic citizenship because learners are expected to connect classroom concepts with real-life financial decisions. Studies indicate that many Filipino learners demonstrate only developing or moderate financial literacy, especially in practical areas such as managing personal finances and budgeting (Alonto & Ferrer, 2022; Maulias et al., 2024).

Budgeting skills are the practical expression of financial literacy. These include identifying sources of income, distinguishing needs from wants, prioritizing expenses, saving, and preparing a simple budget. Xiao and O'Neill (2018) emphasized that financial education becomes meaningful when learners develop financial capability rather than memorizing isolated terms. Similarly, Sabri and MacDonald (2020) associated budgeting and responsible financial behavior with better financial well-being among young adults. In the classroom, budgeting lessons make abstract economic concepts such as scarcity, opportunity cost, consumption, and saving more concrete and personally relevant.

Contextualized Financial Education

The integration of financial education in basic education is supported by DepEd Order No. 022, s. 2021, which encourages schools to embed financial literacy across learning areas (Department of Education, 2021). However, teachers need appropriate instructional materials to translate financial concepts into applied learning experiences. Barrot et al. (2022) noted that teachers and school leaders play an important role in making financial literacy instruction meaningful, while Ventura and Gutierrez (2024) emphasized the value of contextualizing Araling Panlipunan instruction based on learners' realities.

International evidence also supports classroom-based financial education. Bruhn et al. (2016) found that integrating financial education into formal schooling improved financial knowledge and behavior. For Filipino learners, contextualized materials are especially useful because they connect financial concepts to daily experiences such as managing allowance, planning expenses, and saving for needs.

Strategic Intervention Materials

Strategic Intervention Materials are teacher-developed instructional resources designed to address learning gaps and support mastery of specific competencies. DepEd Memorandum No. 117, s. 2005 recognized SIMs as materials for successful learning, particularly when learners need additional support in least-mastered skills (Department of Education, 2005). Research across learning areas has shown that SIMs can improve learner achievement by providing structured, focused, and activity-based learning experiences (Arpilleda, 2021; Dumigsi & Cabrella, 2019; Farin et al., 2022; Gabucan & Sanchez, 2021).

In Araling Panlipunan and related social studies contexts, SIMs have shown promise in making abstract concepts easier to understand. Pasion (2019) found that SIMs improved social studies learning, while Ancheta et al. (2022) developed MELCs-based SIMs for Araling Panlipunan. Calautit (2024) specifically demonstrated that a financial literacy-centered SIM improved the performance of Grade 9 learners in Araling Panlipunan. These findings support the use of Badyet Ko, Buhay Ko! as a supplementary intervention for financial literacy and budgeting instruction.

Theoretical Foundations

This study is anchored on Constructivist Learning Theory and Experiential Learning Theory. Constructivism views learners as active builders of knowledge who connect new concepts to prior experiences (Driscoll & Burner, 2022; Schunk, 2020). In this study, the SIM supported constructivist learning by allowing learners to engage with financial concepts through familiar budgeting situations rather than through lecture alone.

Experiential Learning Theory further explains that learning occurs through experience, reflection, conceptualization, and application (Kolb, 2014; Morris, 2020; Seaman et al., 2017). The SIM reflected this process by presenting realistic financial scenarios, guiding learners to analyze decisions, and requiring them to apply budgeting principles. This approach also aligns with scaffolded and project-based learning, which supports learners as they move from guided practice to independent application (Borabo & Dio, 2025; Gannar & Kilani, 2025; Wiyono et al., 2025).

METHODS

Research Design

The study used a quantitative action research design employing a quasi-experimental pre-test and post-test control group design. This design was appropriate because the intervention was implemented in an actual classroom setting and allowed comparison of learners' performance before and after the intervention, as well as between a control group and an experimental group (Creswell & Creswell, 2018; Gopalan et al., 2020; White & Sabarwal, 2014).

Research Locale

The study was conducted at Kapatagan National High School, located at Purok Mt. Apo 4, Barangay Kapatagan, Digos City, Davao del Sur, Philippines. The school is under the Schools Division of Digos City and offers Araling Panlipunan to Grade 9 learners. The locale was appropriate because the intervention was aligned with Grade 9 competencies on income, consumption, savings, and budgeting.

Participants and Sampling Technique

The participants were Grade 9 Araling Panlipunan learners. A validated pre-test was first administered to identify baseline performance. Learners who obtained moderate or developing scores were selected because they had basic awareness of the target concepts but still needed structured instructional support. The selected learners were randomly assigned to the control and experimental groups to reduce selection bias and establish comparable starting conditions.

Research Instrument

The main instrument was a validated 30-item multiple-choice test aligned with the Grade 9 Araling Panlipunan competencies AP9MAK-IIIc-6 and AP9MAK-IIIc-7. The test measured knowledge and skills related to income, consumption, savings, needs and wants, financial decision-making, and basic budgeting. The instrument was reviewed by a Master Teacher and an Education Program Supervisor in Araling Panlipunan. It was also pilot-tested among comparable Grade 9 learners, and reliability was assessed using Cronbach's alpha, with .70 considered acceptable (Taber, 2018).

Intervention Material

The intervention used in the experimental group was the Strategic Intervention Material titled *Badyet Ko, Buhay Ko!* The SIM included a title card, guide card, activity card, enrichment card, assessment card, answer card, and reference card. It presented contextualized financial literacy tasks, real-life budgeting scenarios, and reflection activities designed to help learners apply financial concepts in practical situations. The control group received usual classroom instruction using regular teaching strategies and materials, while the experimental group received the same competencies with SIM support.

Data Gathering Procedure

The researcher secured permission from appropriate authorities before data gathering. A pre-test was administered to identify learners' baseline financial literacy and budgeting skills. Learners with moderate performance were selected and randomly assigned to the control and experimental groups. The control group received usual classroom instruction, while the experimental group used the SIM during the intervention period. After the treatment, both groups took the same validated post-test under similar testing conditions. Scores were encoded, checked, and prepared for statistical analysis.

Data Analysis

Mean and standard deviation were used to describe pre-test and post-test performance. Frequency distribution was used to summarize performance trends. Paired-samples t-test was used to determine whether there were significant differences between the pre-test and post-test scores within each group, while independent-samples t-test was used to compare pre-test scores, post-test scores, and mean gain scores between the control and experimental groups. All tests were interpreted at the 0.05 level of significance.

Ethical Consideration

The study followed ethical standards for educational research. Permission was secured from the Schools Division Office, school authorities, and concerned personnel. Since the participants were minors, written parental or guardian consent and student assent were obtained. Participation was voluntary, and learners were informed that they could withdraw without academic penalty. Data were anonymized using coded identifiers and used only for academic purposes. The study avoided asking learners to disclose personal or family financial information; all budgeting tasks used hypothetical scenarios to minimize psychological or emotional risk.

RESULTS AND DISCUSSION

Baseline Financial Literacy and Budgeting Skills

Table 1 presents the pre-test performance of the control and experimental groups. Both groups were described as developing before the implementation of the SIM. The control group obtained a mean score of 17.64 (SD = 0.84), while the experimental group obtained a mean score of 18.14 (SD = 0.95). These results indicate that learners had basic awareness of financial literacy and budgeting concepts but still needed instructional support to strengthen practical application.

Table 1. *Level of Financial Literacy and Budgeting Skills Before the Implementation of the SIM*

Group	Mean Score	SD	Description
Control	17.64	0.84	Developing
Experimental	18.14	0.95	Developing

The baseline results support the observations of Alonto and Ferrer (2022) and Maulias et al. (2024), who reported that Filipino learners often demonstrate basic awareness of financial concepts but still experience difficulty applying these concepts in budgeting and money management. The findings also justified the use of a contextualized SIM to help learners connect economic concepts with practical financial decisions.

Comparison of Pre-test Scores

Table 2 shows that there was no significant difference between the pre-test scores of the control and experimental groups, $t = -1.47$, $p = .152$. Since the p-value was greater than .05, the two groups were considered comparable before the intervention. This strengthened the fairness of the comparison and indicated that any post-intervention difference could be more reasonably attributed to the instructional treatment.

Table 2. *Significant Difference Between the Pre-test Scores of the Control and Experimental Groups*

Comparison	t-value	p-value	Remark
Pre-test score	-1.47	.152	Not Significant

Comparable starting conditions are important in quasi-experimental research because they reduce threats to internal validity. This finding aligns with intervention studies that emphasize baseline equivalence before comparing treatment outcomes (Gopalan et al., 2020; Martella et al., 2013; Romero, 2021).

Post-intervention Financial Literacy and Budgeting Skills

Table 3 shows the post-test performance of both groups after the implementation period. The control group obtained a mean score of 19.07 (SD = 1.07), which remained at the developing level. Meanwhile, the experimental group obtained a mean score of 25.29 (SD = 1.49), described as highly developed. These findings indicate that while usual classroom instruction produced some improvement, learners who used the SIM achieved a higher level of financial literacy and budgeting skills.

Table 3. *Level of Financial Literacy and Budgeting Skills After the Implementation of the SIM*

Group	Mean Score	SD	Description
Control	19.07	1.07	Developing
Experimental	25.29	1.49	Highly Developed

The higher post-test performance of the experimental group supports earlier findings on the effectiveness of Strategic Intervention Materials. Calautit (2024) reported that a financial literacy-centered SIM improved Grade 9 learners' performance in Araling Panlipunan, while Dumdumaya et al. (2024) found that SIMs positively affected learners' mastery of competencies. The present findings show that Badyet Ko, Buhay Ko! helped learners translate financial concepts into practical budgeting skills.

Pre-test and Post-test Differences Within Groups

Table 4 presents the difference between pre-test and post-test scores within the control and experimental groups. Both groups showed significant improvement, with the control group obtaining $t = -7.07$, $p = .000$, and the experimental group obtaining $t = -16.60$, $p = .000$. These results indicate that both usual instruction and SIM-supported instruction contributed to learning gains, although the improvement was stronger in the experimental group.

Table 4. *Significant Difference Between the Pre-test and Post-test Scores of the Control and Experimental Groups*

Group	t-value	p-value	Remark
Control	-7.07	.000	Significant
Experimental	-16.60	.000	Significant

The improvement of the control group suggests that regular classroom instruction still supported learner progress. However, the greater improvement of the experimental group indicates the additional value of structured, contextualized, and activity-based intervention materials. This supports Arpilleda (2021), Dumigsi and Cabrella (2019), and Borabo and Dio (2025), who found that SIMs improve learner achievement by providing targeted instructional support.

Comparison of Post-test and Mean Gain Scores

Table 5 shows that there was a significant difference between the post-test scores of the control and experimental groups, $t = -12.67$, $p = .000$. A significant difference was also found in the mean gain scores, $t = -11.03$, $p = .000$. These findings confirm that the experimental group not only achieved higher final performance but also demonstrated greater improvement from pre-test to post-test.

Table 5. *Significant Difference Between the Post-test Scores and Mean Gain Scores of the Control and Experimental Groups*

Comparison	t-value	p-value	Remark
Post-test score	-12.67	.000	Significant
Mean gain score	-11.03	.000	Significant

The significant post-test and mean gain differences provide strong evidence that Badyet Ko, Buhay Ko! was more effective than usual classroom instruction alone. The result is consistent with Pasion (2019), Zabala (2023), and Calautit (2024), who found that SIMs make social studies and financial concepts more accessible, engaging, and applicable to learners. In this study, the SIM helped learners move from developing financial awareness toward highly developed budgeting performance by using guided and realistic activities.

CONCLUSION

The study concluded that Grade 9 Araling Panlipunan learners had developing financial literacy and budgeting skills before the intervention, indicating that they had basic knowledge but still required structured support in applying financial concepts. The control and experimental groups were comparable at baseline, which strengthened the validity of the intervention comparison. After the implementation period, both groups improved; however, the experimental group achieved a highly developed level of performance and obtained significantly higher post-test and mean gain scores than the control group. These findings confirmed that the Strategic Intervention Material Badyet Ko, Buhay Ko! was effective in enhancing learners' financial literacy and budgeting skills. The study contributes to Araling Panlipunan instruction by demonstrating that contextualized and learner-centered SIMs can bridge the gap between financial literacy concepts and practical budgeting decisions.

Recommendations

Araling Panlipunan teachers may use contextualized Strategic Intervention Materials such as Badyet Ko, Buhay Ko! to strengthen learners' financial literacy and budgeting skills, especially in lessons that require real-life application of concepts.

Teachers may develop similar intervention materials for other least-mastered competencies in Araling Panlipunan and other learning areas to provide focused reinforcement for learners who need additional support.

School heads and instructional leaders may support the development, validation, reproduction, and classroom use of SIMs as supplementary instructional resources for improving learner performance.

Curriculum planners and education supervisors may encourage the integration of localized, practical, and learner-centered financial education materials so learners can connect classroom lessons with everyday financial decisions.

Future researchers may conduct similar studies in other grade levels, schools, or divisions with larger samples. They may also examine related variables such as saving habits, spending behavior, financial decision-making, and long-term retention of financial literacy learning.

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