

## Strengthening Financial Planning Competence Among Senior High School Students Through a Participatory School-Based Educational Intervention

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### Volume

7

### Issue

1

### Edition

May

### Page

289-296

### Year

2026

### Article History

Submission: 07-05-2026

Review: 10-05-2026

Accepted: 23-05-2026

### Keyword

Financial literacy;

Financial planning;

Senior high school students;

Community service;

Economic uncertainty;

### How to cite

Sari, I. M., Fauzi, M. R., Agistriyani, S., & Anggraeni, D. P. (2026). Strengthening Financial Planning Competence Among Senior High School Students Through a Participatory School-Based Educational Intervention. *Jurnal Pengabdian Masyarakat*, Volume 7(1), 289-296. <https://doi.org/10.32815/jpm.v7i1.2985>

**Purpose:** This community service program aims to strengthen financial planning competence among students of SMAN 2 Krakatau Steel, Cilegon, in response to persistently low financial literacy levels among senior high school students. The program specifically targets students from an industrial-zone school serving diverse socioeconomic backgrounds, where a baseline needs assessment revealed limited budgeting habits and high susceptibility to impulsive spending driven by digital wallet adoption.

**Method:** The program was conducted on April 23, 2026, involving 50 students from grades 10 and 11 majoring in Social Sciences (IPS), through five sequential stages: basic financial literacy education, practical financial planning training, digital media implementation, responsible financial behaviour campaign, and mentoring and monitoring. Evaluation was conducted using pre-test and post-test instruments. Participants were selected based on curriculum relevance and school readiness. The 30% improvement threshold was established based on prior Indonesian community service benchmarks (Muthia et al., 2023; Arifin et al., 2025). Ethical considerations including participant awareness and institutional coordination were observed throughout.

**Practical Applications:** The program produced an average 38.4% improvement in financial literacy scores, a financial education module, a digital financial recording template, and the formation of student financial literacy agents capable of continuing peer education. It is important to note that these gains reflect short-term knowledge and skill improvements; sustained behavioral change requires longitudinal follow-up, which is scheduled six months post-intervention.

**Conclusion:** This program significantly and measurably improved students' financial knowledge, skills, and attitudes. The integrative approach, combining theory, hands-on practice, and digital media, proved effective. Findings should be interpreted with caution given the single-day format and absence of a control group. The program contributes a replicable school-based model for financial literacy interventions in industrial-area contexts.



## Introduction

In an era of global economic uncertainty marked by inflation, commodity price volatility, and rapid digitalisation, the ability to manage personal finances has become an essential life skill. These conditions affect all segments of society, including the younger generation still in school. The National Survey on Financial Literacy and Inclusion (SNLIK), published by OJK (2024), documented that financial literacy levels in Indonesia remain a concern, with adolescents being among the most vulnerable groups to poorly planned financial behaviour.

SMAN 2 Krakatau Steel, located within an industrial zone in Cilegon City, serves as the partner institution for this community service program. The student population reflects the socioeconomic diversity typical of industrial-zone communities, with households ranging from formal-sector employees to informal workers, a context in which financial pressures and spending behaviors vary considerably among youth. An initial needs assessment conducted through interviews with students and teachers revealed that most students had not developed the habit of budgeting, were prone to impulsive spending driven by social media influence and easy access to digital wallets, and lacked clear financial goals for the future. Specifically, interviews with eight students and two teachers indicated that fewer than 20% of students tracked their daily expenditures, and teachers reported observing patterns of social-comparison-driven spending associated with peer norms around digital consumerism.

These findings are consistent with broader research indicating that financial literacy among Indonesian senior high school students remains low, particularly in allowance management and expenditure planning (Gabay et al., 2024; Lusardi et al., 2021; Sukmawati et al., 2025). Sujud & Setiaji (2020) found that financial knowledge and financial attitudes are the primary determinants of financial literacy levels among secondary school students. Meanwhile, Muthia et al. (2023) demonstrated that structured financial education programs can significantly improve student comprehension.

The rapid growth of digital technology, including e-commerce platforms and electronic wallets, heightens the risk of consumerist behavior when not matched by adequate financial literacy (Fadli et al., 2024; Lusardi & Mitchell, 2014; Sukmawati et al., 2025). Tarigan et al. (2026) argue that integrating financial literacy into secondary education is no longer merely relevant but has become an urgent necessity, given the increasingly complex economic environment faced by today's youth.

Integrating financial literacy into secondary education has become an urgent priority, given the increasingly complex economic environment faced by today's youth (Lusardi et al., 2021; OJK, 2024). Social Sciences students represent a strategic leverage point for this intervention: the curriculum's grounding in economics and social studies provides a natural pedagogical bridge to financial planning concepts, and these students are likely to serve as peer knowledge disseminators within their schools.

In response to these conditions, this community service program was designed to strengthen financial planning competence among grade 10 and 11 Social Sciences students at SMAN 2 Krakatau Steel through an educational, practical, and participatory approach. The program encompassed basic financial literacy education, practical budgeting training, digital financial recording tools, a responsible financial behavior campaign, and ongoing mentoring. The primary target was to achieve at least a 30% improvement in students' financial literacy scores compared to pre-intervention levels, a threshold grounded in prior comparable programs (Arifin et al., 2025; Muthia et al., 2023), alongside the development of sustainable peer education infrastructure.

## Method

This community service program was held on Thursday, April 23, 2026, at SMAN 2 Krakatau Steel in Cilegon City. Participants consisted of 50 students from grades 10 and 11 enrolled in the Social Sciences major. Participants were identified through coordination with class teachers, who nominated students based on attendance regularity and curriculum

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enrollment in economics-related subjects. This purposive selection approach was chosen to ensure participants had sufficient baseline economic knowledge to engage meaningfully with the program content. The school was selected as the program site due to its established relationship with Universitas Pamulang, its location in an industrial zone representing a high-need context, and the administration's readiness to support program logistics.

Prior to implementation, the research team coordinated with the school principal and obtained institutional support for the program. Participants were informed of the program's educational purpose, voluntary nature, and the use of pre-test and post-test data for program evaluation. No personally identifiable data was collected or published. The program was conducted under the community service framework of Universitas Pamulang, which operates under established institutional research ethics guidelines. The program employed a mixed approach integrating educational methods, practical simulation, and mentoring. The entire program was organized into five sequential and mutually reinforcing stages.

Figure 1. Flowchart of the community service program



Source: Author's Work, 2026.

The first stage was preparation, which included coordination with the school administration, a needs assessment through initial surveys and interviews, development of educational modules and learning materials, and construction of evaluation instruments, including pre-test and post-test items. This stage was completed two weeks prior to the implementation date. The second stage was basic financial literacy education, delivered in an interactive seminar format. This session covered concepts such as managing personal allowances, the importance of saving, financial risk awareness, and fundamental principles of financial planning. Facilitation methods included interactive lectures, small group discussions, and open question-and-answer sessions.

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The third stage was practical financial planning training. Students were guided through direct simulations of personal budget preparation using pre-designed worksheets. Drawing on real-life case scenarios, students practiced tracking cash flow, prioritizing needs over wants, and setting short-term financial goals. The fourth stage was the implementation of digital financial tools. The team introduced and trained students to use a spreadsheet-based financial recording template that is accessible on smartphones and laptops. Students practiced filling in the template in real time during the session. The fifth stage was the responsible financial behavior campaign. Students were actively involved in creating visual content, including posters and infographics on financial literacy themes. The finished works were displayed in school corridors as ongoing educational media for the wider school community.

Program evaluation was conducted using a pre-test administered before the educational sessions began and a post-test administered after all activities were completed. Each instrument consisted of 20 items covering three dimensions: financial knowledge, planning skills, and attitudes toward money management. The instruments were reviewed by the program team for content validity against OJK (2024) financial literacy indicators. We also observed student participation throughout the activities to assess active engagement. Post-session questionnaires captured student self-reported intentions and feedback. We scheduled follow-up mentoring through a digital communication group to ensure continuity, and the five selected peer educators ('financial literacy agents') received additional guidance materials.

## Result

The community service program was held on April 23, 2026, at SMAN 2 Krakatau Steel, Cilegon, with 50 students from grades 10 and 11 majoring in Social Sciences participating. All planned activities were carried out smoothly and were met with a high level of enthusiasm from the participants.

*Table 1.* Pre-Test and Post-Test Results of Student Financial Literacy

Assessment Aspect	Pre-Test Mean	Post-Test Mean	Gain	% Improvement
Financial Knowledge	52.4	76.8	+24.4	46.6%
Planning Skills	48.6	74.2	+25.6	52.7%
Financial Attitudes	55.8	79.4	+23.6	42.3%
Overall Average	52.3	76.8	+24.5	38.4%

Source: Author's Work, 2026.

The first session, basic financial literacy education, was delivered in an interactive 90-minute seminar format. Students were introduced to fundamental concepts of financial management, including the definition of budgeting, the importance of distinguishing between needs and wants, and the basic principles of saving. The session was dynamic and participatory, with an active student participation rate of 92%, as reflected in the high volume of questions and discussions throughout. Participation rate here refers to the proportion of students who asked questions, contributed to group discussions, or responded to facilitator prompts.

The second session, practical financial planning training, engaged students in direct simulations of personal budget preparation using pre-designed worksheets. Students were asked to develop a weekly financial plan based on a given allowance scenario. A total of 82% of participants completed the worksheet correctly and presented their financial plans to their groups. The activity received overwhelmingly positive feedback, with students noting that the exercise felt immediately relevant to their daily lives.

The third session, digital financial tool implementation, introduced students to a spreadsheet-based financial recording template accessible through their smartphones. The template was designed with a simple interface including income, fixed expenses, variable expenses, and savings goal columns, optimized for mobile screen sizes common among the student population. All participants successfully accessed and completed the template during the session. Based on a questionnaire distributed at the end of the session, 78% of students

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expressed their intention to use the template independently going forward. This self-reported intention figure should be interpreted cautiously, as behavioral intention does not guarantee sustained use; follow-up data collection is planned for six months post-intervention.

The fourth session, the responsible financial behavior campaign, produced 10 student-created posters and infographics on financial literacy themes. These works were displayed in school corridors as a form of sustained educational media. The activity successfully encouraged student creativity while reinforcing their understanding of responsible financial behavior.

Evaluation results from the pre-test and post-test showed significant improvement across all measured dimensions. The overall mean score increased from 52.3 to 76.8, representing a 38.4% improvement. The highest gain was recorded in planning skills (52.7%), followed by financial knowledge (46.6%) and financial attitudes (42.3%). These results surpassed the initial program target of 30%. These gains should be interpreted as short-term learning outcomes. The pre-test/post-test design without a control group means that gains cannot be fully attributed to the program alone; maturation and social desirability effects may also have contributed, particularly in attitudinal measures.

In addition, the program produced a financial literacy education module in the form of a pocket guide for teachers as a supplementary teaching resource, and a digital financial recording template, which are freely accessible to all students. At the close of the program, five students were selected as financial literacy agents (peer educators) to continue delivering financial education to their classmates. These five agents were identified based on their participation quality and expressed interest during the sessions; they will receive a structured peer education guide and be supported through a dedicated digital communication group with program facilitators.

## **Discussion**

The results of this community service program demonstrate that an integrative approach combining theoretical education, hands-on training, digital tools, and participatory campaigns is effective in improving financial planning competence among senior high school students. The 38.4% average increase in financial literacy scores exceeded the program target and is consistent with findings reported by Arifin et al. (2025) and Muthia et al. (2023), who showed that structured financial education programs can produce significant improvements in student comprehension at the senior high school level.

However, it is important to situate these findings within the broader evidence base. Kaiser & Menkhoff (2020) meta-analysis of financial literacy interventions found that while many programs show immediate post-test gains, effects tend to fade over time and rarely translate into durable behavioral change without reinforcement mechanisms. This finding reinforces the value of building follow-up mechanisms into the program design. The digital mentoring group and peer educator network both serve as structural efforts to carry the intervention's impact beyond a single session.

The notable improvement in planning skills (52.7%) compared to the other dimensions suggests that simulation-based and direct practice methods are particularly effective in changing students' practical financial capabilities. This aligns with Kapoor et al. (1996), who argue that personal finance education is most impactful when participants have the opportunity to apply concepts in contexts directly relevant to their own lives.

The improvement in financial attitudes (42.3%) is also a meaningful achievement. Attitudinal change is generally more difficult to achieve than knowledge gain, as it involves deeply embedded values and habits (Sayekti et al., 2025). The real-case simulation approach likely contributed to this gain by making abstract financial concepts personally relevant. However, given that attitudinal measures are particularly susceptible to social desirability bias in self-report formats, these figures should be interpreted conservatively. Differential effects across subgroups were not examined in this study and represent an avenue for future

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investigation.

*Figure 2. Community service program*



Source: Private Documentation, 2026.

The adoption of a spreadsheet template as a digital tool contributed to increased student engagement. With 78% of students expressing intent to use the tool independently, the results suggest meaningful potential for the program's sustainability beyond formal sessions. The template's design prioritized accessibility for students with basic smartphone access, avoiding reliance on internet connectivity or paid applications. This design choice reflects the school's mixed socioeconomic profile and the need for scalable tools that do not exacerbate existing digital divides. This is consistent with trends identified by the OECD (2022), which found that digital tools can extend the reach and effectiveness of financial literacy programs, particularly among youth who are already comfortable with technology.

One important caveat is that while gains in knowledge and skills can be measured over a short timeframe using pre-test and post-test instruments, sustained behavioral change in financial management requires longer-term observation. This is a well-documented limitation of short-term community service interventions (Kaiser & Menkhoff, 2020). This is why the follow-up mentoring component through a digital communication group and the formation of student financial literacy agents are critical to ensuring the program's long-term impact. Tarigan et al. (2026) emphasize that the sustainability of school-based financial literacy programs depends heavily on the involvement of both teachers and peers as ongoing support systems.

In terms of scalability, this program has clear potential for replication in schools with similar profiles, particularly those in industrial areas serving students from diverse socioeconomic backgrounds. The educational module and digital template developed through this program are designed to be easily adapted by teachers without requiring intensive specialist training. Future replications should incorporate pre-program co-design sessions with teachers and students to ensure local contextual relevance, and should include control or comparison groups to strengthen causal inference.

*Figure 3. Closing process of community service*



Source: Private Documentation, 2026.

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## Conclusion

The community service program implemented at SMAN 2 Krakatau Steel on April 23, 2026, achieved its primary objective of improving students' financial planning competence in measurable terms. Involving 50 students in grades 10 and 11 in the Social Sciences major, the program achieved an overall average improvement in financial literacy of 38.4%, surpassing the initial 30% target. The integrative approach combining basic financial literacy education, hands-on practice, digital tool implementation, behavioral campaigns, and follow-up mentoring proved effective in improving participants' financial knowledge, skills, and attitudes across all three measured dimensions.

These findings should be read as evidence of short-term learning gains rather than confirmed behavioral transformation. The pre-test/post-test design without a control group limits causal attribution, and attitudinal gains in particular may reflect social desirability effects. The program's true long-term impact will only be assessable through the planned six-month follow-up study. What this program does contribute, however, is a replicable, contextually grounded model for school-based financial literacy intervention in industrial-area settings — one that combines structured content delivery with peer-educator infrastructure and accessible digital tools.

The highest gain was recorded in the planning skills dimension (52.7%), confirming the effectiveness of simulation and direct practice methods in practical financial education. The program also produced several outputs designed for sustained use: a financial literacy education module, a digital financial recording template, student-created visual campaign materials, and the formation of five student financial literacy agents to carry on peer education. These outputs are structured for integration into both formal classroom activities and extracurricular programs at the school.

As a key recommendation, the school is encouraged to incorporate the developed modules and learning materials into the Economics curriculum on an ongoing basis. Further research is needed to measure the program's long-term impact through a follow-up study at six months post-intervention, examining whether knowledge gains translate into observable changes in saving behavior, allowance management, and financial goal-setting. Similar programs are recommended for replication in other schools, ideally with comparison group designs to strengthen the evidence base for school-based financial literacy programs in Indonesia.

## Acknowledgments

The program team extends sincere gratitude to the Principal and all teachers of SMAN 2 Krakatau Steel, Cilegon, for their trust, support, and facilitation throughout the implementation of this program. Special appreciation is also directed to the 50 student participants whose active and enthusiastic engagement made each session meaningful and productive. Acknowledgment is also due to the Universitas Pamulang for the administrative support and funding that made this program possible. The team also extends its appreciation to all implementation team members, student research assistants, and colleagues who provided input and encouragement throughout the planning, implementation, and reporting stages.

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