



## Project-Based Learning to Improve Vocational School Students' Personal Financial Management Understanding in Depok

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**Abstract.** *This study aims to analyze the effectiveness of project-based learning in improving vocational students' understanding of personal financial management. The method used in this study is qualitative research with a case study approach, where data is collected through in-depth interviews with teachers and students, observation of learning activities, and analysis of student financial project documentation. The interviews were conducted to explore the perspectives of students and teachers regarding their experiences in implementing project-based learning in financial education. Observation is used to see firsthand how students apply financial concepts in the projects they are working on. Documentation analysis was carried out on financial statements and student reflections to understand the impact of project-based learning on improving student understanding. The results of the study showed that students who learned using Project-Based Learning were better able to manage their finances better than conventional methods. The contribution of this research is to provide insight for educators and policymakers about the importance of applying project-based learning methods in improving the financial literacy of vocational school students.*

**Keywords:** *Financial Education, Personal Financial Management, Project-Based Learning, Student Understanding, Vocational Students*

### 1. INTRODUCTION

Financial education is an essential skill that vocational school students must have so that they can manage their finances independently after graduation. Without a good understanding of personal financial management, students are at risk of experiencing financial difficulties, such as being wasteful in spending, having difficulty saving, or even getting entangled in debt from a young age. Financial literacy serves as a pivotal foundation that bestows upon students the fundamental competencies necessary for the meticulous processes of budgeting, strategic saving, and prudent investing, all of which are indispensable for facilitating informed and judicious financial decision-making in their personal and professional lives (Taj & Reddy, 2024). Empirical studies consistently demonstrate that students who exhibit a high degree of financial literacy are significantly more inclined to adeptly manage their financial resources, a skill set that culminates in

superior financial outcomes and overall economic well-being (Taj & Reddy, 2024). The implementation of comprehensive and well-structured financial literacy programs within educational institutions has the potential to markedly enhance students' abilities in financial management, thereby fostering a culture of long-term financial stability and resilience in the face of economic challenges (Taj & Reddy, 2024). A study shows that many vocational school students are not able to formulate a monthly budget effectively, and most of them do not even understand basic concepts such as simple financial planning and investments. Therefore, financial education in vocational schools needs to be strengthened with more applicable methods so that students can understand and apply financial principles in their daily lives.

One method that has proven effective in improving students' understanding of personal financial management is project-based learning (PBL). PBL encourages students to learn through hands-on experience by completing projects that are relevant to the real world, such as budgeting, investment simulations, or long-term financial planning. Students cultivate vital competencies including critical-reflective thought, collaborative teamwork, and proficient time management as a result of engaging in collaborative projects (Miryala, 2024). The transition from conventional pedagogical approaches to project-based learning (PBL) presents significant challenges for both educators and learners (Mutanga, 2024). Resource Intensive: The successful implementation of PBL necessitates a considerable investment of time and resources for both planning and execution (Miryala, 2024). In some case studies, students who learned to use PBL had a better understanding of financial concepts because they were actively involved in a financial management simulation project, as opposed to just reading theories from books. Thus, PBL in financial education not only improves understanding of concepts but also helps students develop critical thinking and problem-solving skills in managing their finances.

The implementation of PBL in financial education can be done by assigning project-based assignments that challenge students to craft their financial strategies. Through this project, students can experience firsthand how to budget, plan savings, and understand the financial risks that may occur in their lives. Educational interventions have demonstrated considerable advancements in learners' financial acumen, as evidenced by

post-assessment evaluations revealing augmented comprehension of fiscal planning and savings strategies (Chrisinta et al., 2024; Ekasasmita et al., 2024). A substantial 85% of vocational learners indicated a heightened grasp of financial principles after their involvement in instructional modules concentrated on monetary management and budgeting (Chrisinta et al., 2024). Students participate in experiential learning activities that replicate authentic financial contexts, thus enabling them to refine their skills in budgeting and savings formulation (Santoso & Binawati, 2023). In a financial education experiment at SMK, students were asked to create a personal financial plan within a period of six months, including calculating income, expenses, and savings and investment strategies. The results showed that the students involved in this project experienced a significant improvement in understanding compared to those who only followed conventional learning. Therefore, the implementation of PBL must be applied more in the financial education curriculum at vocational schools so that students have real experience in managing their finances.

PBL's success in improving student's understanding of personal financial management shows that this method can be a key approach to financial learning in vocational schools. By providing a more interactive and practice-based learning experience, PBL not only improves students' understanding but also forms better financial habits from an early age. Problem-based learning (PBL) has been demonstrated to substantially enhance early childhood financial literacy competencies, as corroborated by a study that yielded a t-value of -16.412 and a significance level of 0.001, thereby indicating a robust positive influence (Kalsum et al., 2025). Interactive pedagogical approaches, including economic games and simulations, significantly enrich students' comprehension of financial principles, thereby empowering them to translate theoretical insights into practical applications in real-world contexts such as budgeting and investment strategies (Kalashnikov et al., 2024). The hybrid instructional framework for financial management curricula, designed with a focus on PBL, markedly improves the overall calibre of financial education, rendering it more pertinent and applicable for learners (Xing, 2023). Some schools that have integrated PBL into their financial education curriculum report that students have become more disciplined in managing their finances, understand the importance of saving and be wiser in spending their money. Therefore, the integration of PBL in financial education in vocational schools must

continue to be strengthened through training for teachers and the development of a curriculum that is more adaptive to the needs of students in facing financial challenges in the future.

Financial education at the vocational school level is still often considered as additional material and has not been the main focus of the curriculum. Many vocational school students have limited access to knowledge about personal financial management, so they do not have adequate skills in managing finances after graduation. Financial literacy provides students with critical competencies such as budgeting, saving, and investing, which are indispensable for proficient personal financial management (Chandrika Reddy & Taj, 2024; Taj & Reddy, 2024). Research indicates that students possessing elevated levels of financial literacy exhibit a greater propensity to engage in informed financial decision-making, thereby enhancing their long-term financial well-being (Annisa Nurrohmah Azzahra et al., 2024). Socio-economic determinants and restricted access to financial resources further obstruct students' capacity to attain essential financial knowledge (Taj & Reddy, 2024) (Chandrika Reddy & Taj, 2024). Studies show that most vocational school students do not understand the basic concepts of money management, such as how to budget, distinguish needs and wants, or understand the importance of investment from an early age. Therefore, an innovative approach to financial education is needed that not only provides theory but also practical experience for students to understand how to better manage their finances.

One method that can improve students' understanding of personal finance management is project-based learning (PBL), which is based on the completion of real projects. In contrast to conventional methods that use lectures and memorization, PBL allows students to learn through hands-on experience in compiling and managing financial budgets. Research findings suggest that project-based learning (PBL) substantially improves students' comprehension of budgeting, with one investigation revealing an enhancement in understanding from 55% to 87.5% after the introduction of PBL within a budgeting curriculum (Mustika et al., 2024). PBL facilitates students' engagement in authentic financial consultancy endeavours, which not only elevates their academic performance but also augments their involvement and intrinsic motivation (Abinzano et al., 2024). Through interactive pedagogical techniques such as simulations

and economic gaming, which are fundamental to PBL. Students acquire vital competencies including budget formulation and risk assessment (Kalashnikov et al., 2024). In the implementation of PBL, vocational school students are given the task of creating financial projects, such as preparing a small business plan, managing simulated household finances, or developing a simple investment strategy. With active involvement in the project, students not only understand the concept of financial education but also develop critical thinking and problem-solving skills that will be useful for their lives after graduation.

Although PBL in financial education has many benefits, its implementation still faces various challenges at the school level. These challenges include a lack of training for teachers in implementing the PBL method, limited school resources to support finance-based projects, and a lack of students' awareness of the importance of project-based learning. Numerous educators exhibit a deficiency in adequate training concerning project-based learning (PBL) methodologies, which significantly obstructs the effective execution of such practices (Clark & Shin, 2024; M. & Jamaludin, 2025). Professional development initiatives are imperative for equipping educators with the requisite competencies and assurance to proficiently facilitate PBL (Clark & Shin, 2024; Kieu et al., 2024). Inadequate resources, encompassing both materials and technological support, represent a common impediment to the implementation of PBL (Bin Adnan & Abdul Rahman, 2024; Tisna et al., 2024). Resource deficiencies not only diminish the calibre of projects but also exacerbate classroom management challenges during PBL engagements (Bin Adnan & Abdul Rahman, 2024). Some schools that try to implement PBL report that without adequate guidance, students often struggle to structure their financial projects systematically, and most still rely on teacher instruction rather than independent thinking. Therefore, a more mature strategy is needed in integrating PBL into financial education, including the provision of training for teachers and the preparation of more structured learning modules.

If implemented well, Project-Based Learning in financial education can have a significant impact on students' understanding of personal financial management. With hands-on experience in managing finances through practical projects, students can build healthier financial habits early on, such as saving, managing expenses, and thinking critically before making financial decisions. Financial literacy provides students with critical competencies necessary for proficient management of personal finances, encompassing budgeting and savings strategies (Taj & Reddy, 2024). Empirical evidence indicates that experiential financial learning significantly augments students' financial literacy, as reflected in enhanced performance on financial tasks among individuals possessing practical experience (Polák et al., 2022). Workshops facilitated by peers have yielded noteworthy advancements in students' financial acumen and behaviours, fostering savings practices and mitigating impulsive expenditures (Oladayo et al., 2023). Programs designed to cultivate saving behaviours in children have demonstrated potential effectiveness, as early engagement in saving activities can facilitate more advantageous financial decisions in subsequent stages of life (Hutasoit et al., 2022). Several studies have shown that vocational school students who are involved in PBL are more financially prepared than those who only get theory in class because they are already familiar with financial management simulations before entering the workforce. Therefore, PBL must be an integral part of financial education in vocational schools, so that students not only understand financial theory but also have real skills in managing their finances independently.

Understanding personal finance management is an essential skill for vocational school students, considering that they are prepared to immediately enter the world of work or entrepreneurship after graduation. However, there are still many vocational school students who experience difficulties in managing their finances due to the lack of applicable financial education at school. Conventional learning methods that emphasize more on theory have not been able to provide real experience in financial management. Engaging students in workshops centred on cash flow statements and the management of personal finances has been demonstrated to be effective in enhancing comprehension and practical competencies (ARIANI et al., 2024). The integration of technology within the realm of accounting education can equip students with contemporary instruments for financial management, thereby promoting enhanced engagement and understanding

(Aliah et al., 2024). The incorporation of project-based assessments can serve to reinforce the learning process and ensure that students effectively translate their theoretical knowledge into practical applications (Aliah et al., 2024). Based on previous research, low financial literacy among vocational school students has an impact on unhealthy financial habits, such as consumptive habits without planning or difficulties in saving and investing. Therefore, more innovative and real-practice-based learning methods are needed to effectively improve students' understanding of financial education.

One approach that can be applied to improve students' understanding of personal finance management is Project-Based Learning (PBL), which is oriented towards hands-on experience through real projects. PBL allows students to learn in a more contextual and applicative way, where they are given the challenge of managing finances in real-world situations. Compared to the lecture method, PBL encourages students to think critically, analyze financial situations, and make informed decisions. Project-Based Learning (PBL) assimilates financial education into the quotidian experiences of students, thereby rendering the educational process both pertinent and pragmatic. This pedagogical framework equips students to confront authentic financial predicaments, thereby fostering financial autonomy and proficient monetary stewardship (Thi Toan et al., 2024). The integration of financial education within academic curricula is imperative for cultivating discerning citizens who are adept at manoeuvring through the complexities of economic environments (Fernandes et al., 2024). Students may be assigned a project to create a personal budget, manage a simulated business cash, or design a financial strategy for a small business. In this way, they not only understand financial concepts in theory but also develop practical skills that can be applied in daily life. Through the Project-Based Learning approach, financial education in vocational schools can become more interesting, effective, and relevant to the needs of students in an increasingly complex economic era.

This study aims to analyze the effectiveness of Project-Based Learning in improving students' understanding of personal financial management at the vocational school level. By examining how PBL is applied in financial education, this study can provide insight into how project-based learning strategies can shape better financial habits for students. In addition, this research will explore the challenges and opportunities in

integrating PBL into the vocational curriculum. Students acquire the ability to implement financial principles through engagement in practical projects, such as the formulation of advisory reports, thereby significantly advancing their comprehension of budgeting, investment strategies, and risk management (Abinzano et al., 2024; Kalashnikov et al., 2024). Research findings suggest that Project-Based Learning (PBL) is associated with enhanced academic outcomes, particularly for learners exhibiting elevated levels of engagement in their educational activities (Saputra et al., 2024). The results of this study are expected to provide recommendations for educators and policymakers in designing a financial education curriculum that is more experience-based and applicable for vocational school students. Thus, this research not only contributes to the development of financial learning theory but also provides concrete solutions to improve financial literacy among vocational school students.

## **2. METHODS**

This study uses a qualitative approach with a case study design to understand the effectiveness of project-based learning (PBL) in improving the understanding of personal financial management of vocational school students. PBL was chosen because this learning model provides students with hands-on experience in managing finances through real projects, thereby improving their conceptual understanding and practical skills. Project-based learning (PBL) significantly augments the proficiency of financial literacy skills, particularly within the realm of early childhood education, as demonstrated by research revealing a t-value of -16.412 and a significance level of 0.001, thereby indicating substantial positive implications (Kalsum et al., 2025). In vocational education contexts, PBL has been correlated with enhanced educational outcomes and heightened motivation among students engaged in accounting disciplines, effectively equipping them to confront real-world financial dilemmas (Andalusia et al., 2024). Interactive pedagogical approaches, encompassing simulations and economic games, serve to complement PBL by offering tangible experiences in financial management, including budget formulation and risk assessment (Kalashnikov et al., 2024). In this study, students were given monthly budgeting projects, daily financial record-keeping, as well as simple investment planning to improve their financial management skills. With this approach,



the research aims to explore how PBL can help students connect financial concepts with daily living practices.

The population in this study is SMK grade XI students in Depok majoring in Business and Management who have studied personal financial management subjects. The selection of this population is based on the relevance of the curriculum to the financial management skills that students must master before entering the world of work or entrepreneurship. Financial management is of paramount importance for students, especially those who intend to pursue entrepreneurial endeavours, as it provides them with essential competencies to manage resources efficiently and make well-informed decisions (Irdianty & Sitorus, 2024). Initial financial education cultivates a sense of financial autonomy and proficient money management, which are imperative for achieving success in the future (Thi Toan et al., 2024). Graduates possessing robust financial management competencies exhibit enhanced employability, as these competencies are congruent with industry requirements, particularly in the realms of problem-solving and meticulous attention to detail (Bagares, 2024). Financial literacy significantly augments the ability to recognize entrepreneurial opportunities, thereby encouraging students to participate in activities that generate income (Kang & Park, 2024). The sample was taken using purposive sampling techniques, with the criteria of students who have been engaged in project-based learning for one semester. In addition, the subject teachers were also involved as additional informants. The research focus on vocational school students allows for an in-depth exploration of how project-based learning experiences affect their financial understanding and skills.

Data collection was carried out through in-depth interviews, classroom observations, and document analysis from student financial projects. This combination of methods provides a comprehensive overview of how students understand and apply the concept of personal finance management through a given project. The emergence of financial technology, specifically Buy Now Pay Later (BNPL) services, has profoundly influenced the financial conduct of students, fostering hedonistic consumption patterns (Suherman et al., 2025). Research has shown that the accessibility of fintech can facilitate enhanced financial planning among students, notwithstanding the potential adverse effects associated with impulsive expenditures (Suherman et al., 2025). The domain of

financial education necessitates a transformation to confront emerging challenges and opportunities, thereby guaranteeing that students are perpetually knowledgeable and proficient in the management of their financial resources (Shi et al., 2025). Interviews were conducted to explore students' experiences and challenges in completing financial projects, class observations to see their participation in the learning process, and document analysis to assess the quality of the financial projects that have been made. This method ensures that the data obtained reflects students' understanding of the subject in depth and applicability to the concept of personal financial management.

The data obtained was analyzed using thematic analysis methods to identify patterns of understanding, challenges, and impacts of PBL on students' financial skills. Thematic analysis allows researchers to group data based on key aspects such as understanding financial concepts, financial management skills, and the impact of the project on students' financial independence. Thematic analysis possesses the capacity to elucidate students' understanding of financial principles, thereby underscoring deficiencies in their knowledge base. For instance, empirical studies suggest that familial and educational backgrounds play a pivotal role in shaping students' financial literacy (Amiranashvili, 2023). Research demonstrates that individuals enrolled in Financial Management programs frequently exhibit superior financial competencies in comparison to their counterparts in alternative academic disciplines (Ilar et al., 2024). The examination of financial autonomy among students reveals that a substantial proportion attain commendable levels of financial independence, irrespective of their financial proficiency (Ilar et al., 2024). From the results of interviews and observations, it was found that students who were actively involved in the project showed an increased understanding of budgeting, recording income and expenses, and making more rational financial decisions. The results of the analysis are expected to provide insights into the effectiveness of Project-Based Learning in improving the financial literacy of vocational school students, as well as recommendations for educators to develop project-based learning methods in the field of financial education.

### 3. RESULTS

Empirical findings obtained from a series of interviews conducted with students enrolled in vocational high schools, commonly referred to as vocational high school students, conclusively show that the application of project-based learning (PBL) pedagogical strategies significantly improves their understanding of the complex concepts of personal finance management in a much more practical and applicable way in their daily lives. Most students articulate that through the implementation of a designated project, they are allowed to directly translate theoretical knowledge into real-world applications, which includes but is not limited to, the formulation of a comprehensive monthly budget and careful recording of their various expenses. One student openly revealed that before the implementation of PBL teaching methods, he often faced major challenges in the effective management of his pocket money; However, after his involvement in personal finance projects, he underwent an important transformation and began to exercise greater discipline in his allocation and distribution of expenses. Furthermore, educators specializing in financial literacy have corroborated the statement that active participation in finance-related projects serves to significantly increase students' awareness of the importance of having a strong understanding of financial literacy in today's complex economic landscape.

From the extensive analysis of the results obtained through systematic observations conducted during the educational learning process, it becomes clear that students show significantly increased levels of enthusiasm and engagement when participating in personal finance management learning activities, compared to the more traditional lecture methods used previously. It was observed that students actively engaged in thought-provoking discussions regarding various financial management strategies, carefully drafted comprehensive financial planning documents, and participated in collaborative dialogues with their peers to critically evaluate and assess their individual financial decisions. Furthermore, an important trend emerged where some students began to adopt and utilize advanced digital applications designed for financial record-keeping, which then facilitated a more efficient and efficient approach to budget planning. This phenomenon shows that the application of problem-based learning (PBL) not only improves students' understanding and mastery of core concepts related to financial

management but also significantly changes and improves their habitual practices in managing their finances in a more organized and systematic manner.

Project documentation carefully collected from the student body includes a variety of essential components, including personal financial statements that provide insight into an individual's fiscal situation, a budget table that outlines anticipated income and expenses, and a comprehensive analysis of expenses and revenue streams that contribute to a holistic understanding of financial health. After conducting a thorough examination of the documents analyzed during this study, it became clear that most students demonstrated an exceptional capacity to engage in a more detailed and realistic financial planning process after they participated in project-based learning initiatives, which significantly improved their financial acumen. In addition, some projects undertaken by students also show an impressive level of creativity in formulating easy yet effective savings and investment strategies that are practical and achievable in their financial context. A highly innovative student developed a comprehensive savings plan structured around a "50-30-20" strategy, in which 50% of their income is allocated to essential needs, 30% is devoted to discretionary desires, and the remaining 20% is committed to savings, thus illustrating a holistic approach to personal financial management. This collection of documentation serves to confirm and reinforce the assertion that project-based learning (PBL) exerts a significant and transformative influence on students' understanding of financial concepts and the development of essential skills in the field of financial education.

Based on a comprehensive analysis of the findings obtained from a series of carefully conducted interviews, systematic observations, and thorough documentation, it can be conclusively affirmed that Project-Based Learning plays a very significant role in improving the understanding of personal finance management among students enrolled in vocational high schools, commonly referred to as vocational schools. This particular pedagogical approach facilitates a vital connection between theoretical construction and practical application, thereby substantially increasing students' awareness of the importance of effective financial management in their lives. In addition, students' active involvement in various financial projects not only enriches their learning experience but also plays a crucial role in encouraging the development of healthier financial habits that

are essential for their future well-being. These exciting findings provide strong support for a theoretical framework that positions project-based learning as an effective way to improve critical thinking and problem-solving skills in the context of financial situations.

**Table: Summary of Research Results**

<b>Aspects</b>	<b>Research Findings</b>
<b>Interview</b>	Students find it easier to understand financial concepts after applying them directly in personal finance projects. Teachers also see an increase in students' awareness of managing finances.
<b>Observation</b>	Students are more active in discussions, use technology for financial records, and show changes in habits in managing money.
<b>Documentation</b>	Student financial statements show improvements in financial planning skills, with some students implementing simple savings and investment strategies.
<b>Analysis Findings</b>	Project-based learning is effective in increasing vocational students' understanding of personal financial management, building healthier financial habits, and increasing active involvement in financial education.

The data presented in the table above illustrates that the implementation of project-based learning in the domain of personal financial management education has shown significant efficacy in improving the understanding of financial principles among students in vocational high schools (SMK). The results obtained from the interviews showed that students found it much easier to understand the material after its practical application in personal finance projects, while educators noted a marked increase in students' awareness regarding the management of their financial resources. In addition, the observational analysis revealed that students demonstrated high engagement during discussions, used technological tools for meticulous documentation of financial records, and demonstrated favourable changes in their financial behaviour. Furthermore, the compilation of student financial statements underscores advances in financial planning abilities, with some students embarking on a basic savings and investment approach. Collectively, these results support the statement that project-based financial education not only improves conceptual understanding but also fosters more responsible financial practices among high school students.

#### **4. DISCUSSION**

Students' understanding of personal financial management can be improved through the project-based learning (PBL) method in financial education at vocational schools. Based on interviews with students and teachers, the majority stated that PBL provides a more interactive and applicative learning experience. Students not only learn financial concepts theoretically but also apply them in real-life projects, such as budgeting and personal financial record-keeping. Students subjected to project-based learning (PBL) exhibit enhanced performance in evaluative measures, as substantiated by a study in which more than 90% of participants articulated a favourable educational experience (Wickramasinghe & Appiah, 2024). PBL fosters the utilization of theoretical frameworks in practical contexts, thereby augmenting the understanding and retention of financial principles (Nascimento, 2024). PBL exerts a profound influence on financial literacy competencies in early childhood, signifying that active involvement in financial activities equips students with the requisite skills for effective financial stewardship in the future (Kalsum et al., 2025). Undertakings such as budget formulation facilitate students' comprehension of the significance of financial planning and meticulous record-keeping, which are pivotal competencies for the management of personal finances (Andalusia et al., 2024). One of the students revealed that through this project, he realized the importance of managing income and expenses in a disciplined manner. A teacher also emphasized that with this method, students are more motivated because they see firsthand the benefits of learning finance in their daily lives. Thus, this interview shows that PBL is effective in increasing the awareness and understanding of vocational school students towards personal financial management.

Observations during the learning process show that the PBL method encourages students' active involvement in understanding personal finance. Students are more enthusiastic and active when they are given project-based tasks, such as creating monthly budget reports and simple investment simulations. They also discuss a lot in groups, compare financial management strategies, and apply various financial recording techniques. Project-based learning (PBL) cultivates an engaging educational atmosphere, thereby motivating students to assume responsibility for their own learning experiences (Khamouja et al., 2025). Participation in authentic projects, such as the engineering of

electric vehicles, has been demonstrated to significantly enhance student engagement and overall satisfaction (Tirado-Morueta et al., 2025). Through PBL, students acquire critical competencies including collaboration, analytical reasoning, and flexibility, which are indispensable for practical applications in real-world contexts (Afzal & Tumpa, 2025). The execution of projects not only improves problem-solving skills but also promotes autonomous learning, thus aligning with contemporary educational imperatives (Linh, 2024). Some students have started using digital financial recording applications to monitor their expenses. In addition, some students also try to implement need-based financial management strategies and have a desire to see the impact on their financial balance. The results of this observation show that PBL not only improves students' theoretical understanding but also forms better financial habits in their lives.

Documentation of student project results provides concrete evidence that PBL is effective in building better personal finance skills. The student's project report shows that they not only understand the basic concepts of finance but are also able to design a more systematic financial management strategy. Some students have developed long-term savings plans, small investments, and more effective budget allocation strategies. It cultivates an enhanced understanding of financial instruments and market mechanisms, which is imperative for successfully navigating the intricacies of the contemporary financial environment (Raghvendra et al., 2024). Students have evidenced their financial acumen by formulating long-term savings strategies that are congruent with their future aspirations, thereby illustrating their capacity to implement theoretical concepts in practical contexts (Rajesh & Giridhar, 2024). The small-scale investment initiatives devised by students signify their grasp of risk management and investment methodologies, which are critical for the accumulation of wealth (Abdul Samad et al., 2024). A concrete example of a student project is the application of the "50-30-20" method, where 50% of income is allocated to basic needs, 30% to wants, and 20% to savings or investments. Some students also draw up a financial plan for small business capital after graduating from school. From this documentation, it can be concluded that Project-Based Learning has a real impact on how students manage their finances more responsibly.

Based on interviews, observations, and documentation, project-based learning has been proven to increase the understanding of vocational school students on personal financial management. This method not only helps students understand financial concepts but also forms better financial habits through hands-on application in the projects they are working on. Thus, PBL can be an innovative solution for improving financial literacy among vocational school students. Interactive pedagogical approaches, including simulations and economic games, have demonstrated significant efficacy in enhancing financial literacy, thereby facilitating students' opportunities to develop competencies in areas such as budgeting and investing (Kalashnikov et al., 2024). Empirical investigations suggest that problem-based learning (PBL) markedly improves financial literacy competencies, as demonstrated by an analysis revealing a t-value of -16.412 and a significance threshold of 0.001, thereby attesting to its substantial efficacy in the domain of early childhood financial literacy (Kalsum et al., 2025). The findings of the study show that students are more disciplined in recording expenses, understand the importance of investments, and can make better long-term financial planning. In addition, they are more confident in making more rational and strategic financial decisions. Therefore, the integration of project-based learning in financial education is recommended to be applied more widely so that the younger generation is better prepared to face financial challenges in the future.

## **5. CONCLUSION**

This study aims to analyze the effectiveness of project-based learning (PBL) in improving the understanding of vocational school students on personal financial management. Through this approach, students not only gain a theoretical understanding of financial education but also apply those concepts to real-life projects. This study explores how PBL can help students in managing their finances in a more systematic and disciplined manner. In addition, this study also identifies challenges and supporting factors in the implementation of PBL in personal financial management subjects. The contribution of this research is to provide insight for educators in designing more effective project-based learning strategies and encourage the implementation of more applicable financial education in vocational schools. In addition, the results of this study can also be a reference for policymakers in developing a curriculum that is more relevant to the



financial literacy needs of students. The limitation of this study is that the scope of the sample is still limited to several vocational schools, so further research is needed on a wider scale to obtain more generalizable results.

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