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ENHANCING ENTREPRENEURSHIP SKILLS THROUGH PROJECT-BASED LEARNING: A STUDY ON PACKAGE C LEARNERS IN ENTREPRENEURSHIP EDUCATION

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Abstract

This study investigated the effects of project-based learning (PBL) on package C learners' entrepreneurship skills in the entrepreneurship program at a Community Learning Center (CLC) in Padang. In a quasi-experimental research project, an entrepreneurship instructional group (n=25) was taught using (PBL), while a control group (n=27) received traditional teachings. A survey was used to evaluate skills in entrepreneurship, including creativity, problem-solving, decision-making, communication, leadership, and risk management. The results showed that the group that received the PBL intervention had notably better entrepreneurship skills than the group that did not, according to independent sample t-tests. Paired sample t-tests indicated a notable improvement in entrepreneurial skills among the experimental group from the pre-test to the post-test. In contrast, the control group did not show any substantial changes. A one-way ANCOVA also revealed that the project-based learning approach positively impacted multiple aspects of entrepreneurship skills, such as creative and innovative thinking, problem-solving and decision-making, and leadership and communication skills. The results underscore how project-based learning helps package C students develop entrepreneurial attitudes and hands-on skills, adding to the increasing understanding of entrepreneurship education methods.

Keywords: Entrepreneurship Education, Project-Based Learning, Entrepreneurship Skills, Package C Learners, Equivalency Education.

INTRODUCTION

Teaching students about entrepreneurship is crucial to helping them developing the necessary skills and mindset to identify and seize business opportunities. Encouraging students to embrace an entrepreneurial mindset is essential for promoting economic growth and fostering innovation in the present business environment (Charrón-Vías & Rivera-Cruz, 2020). Nevertheless, conventional approaches to teaching entrepreneurship in academic settings frequently face challenges in offering students practical experience and exposure to actual scenarios (DeCoito & Briona, 2023; Hazizah et al., 2024). Project-based learning (PBL) is a successful teaching method that encourages active learning, analytic thinking, and real-world use of educational ideas. Participating in interactive tasks that simulate difficulties faced by entrepreneurs can boost entrepreneurial abilities and cultivate an entrepreneurial attitude (Suswanto et al., 2019; Tannoubi et al., 2023).

In education programs for package C equivalency, entrepreneurship education is especially important for individuals who have not finished formal schooling (Dillon et al., 2022; Putri et al., 2024). A lot of C programming learners may encounter financial obstacles and could find value in acquiring entrepreneurial abilities to explore self-employment or business prospects (Vollmar & Euler, 2023; Nengsih et al., 2024).

This research is focused on examining how the project-based learning approach impacts the entrepreneurial abilities of package C students studying entrepreneurship at PKBM Tenggang Raso. More precisely, the study aims to address the following inquiries: (1) Does the implementation of the project-based learning model in entrepreneurship education lead to greater development of entrepreneurship skills among package C learners compared to traditional teaching methods? and (2) What specific entrepreneurship skills are enhanced through the use of the project-based learning model in entrepreneurship education for package C learners?

The research is based on the theoretical model introduced by Fayolle et al. (2021), emphasizing the significance of matching entrepreneurship education with specific goals, defined target groups, suitable assessment techniques, pertinent material, and efficient teaching methods. This study aims to meet the demand for experiential and student-centred learning in entrepreneurship education through the use of hands-on projects as a teaching approach. The results of this study could enhance the current understanding of successful methods in entrepreneurship education, especially in package C equivalency programs. Moreover, the research could offer important knowledge for teachers and decision-makers aiming to improve entrepreneurship education, ultimately equipping students with the necessary skills and mindset for successful entrepreneurial endeavours.

LITERATURE REVIEW

Entrepreneurship Education and Project-Based Learning

The significance of entrepreneurship education has grown in the last few years, helping individuals cultivate an entrepreneurial mindset and skills to recognize and seize business opportunities (Fayolle et al., 2021; Huang-Saad et al., 2020). Nevertheless, conventional ways of educating entrepreneurship, like lectures and case studies, are frequently criticized for their limited capacity to successfully provide hands-on skills and real-life experiences. Winborg and Hägg (2023) argue that 'traditional teaching methods in entrepreneurship education, such as lecturing and case studies, do not adequately prepare students for the challenges of real-world entrepreneurial ventures.' Similarly, Neck and Greene (2011, p. 56) state that 'the traditional pedagogy used in entrepreneurship education often fails to provide students with the necessary skills and mindset required for successful entrepreneurial practice.'

Project-based learning (PBL) improves entrepreneurship education by emphasizing hands-on experiences and real-world applications. PBL entails students engaging in complex, practical projects that mirror real-life problems and demand the utilization of their knowledge and skills (Miller et al., 2021). Participating in these projects helps students enhance their problem-solving abilities, critical thinking, and collaboration skills while also building their knowledge (Sholihah & Lastariwati, 2020; Tarasova et al., 2021).

Numerous research projects have investigated the advantages of integrating PBL into entrepreneurship instruction (Oliveira & Cardoso, 2021; Pinto & KJ, 2021; Sousa & Costa, 2022; Sun & Kim, 2022). Latif et al. (2020) discovered that utilizing a project-based method improved students' entrepreneurial leadership skills, decision-making capabilities, and teamwork skills. In a similar vein, Neck and Corbett (2018) showed how PBL helped students cultivate entrepreneurial attitudes and abilities like identifying opportunities, managing risks, and solving problems in innovative ways.

In the context of package C equivalency education programs, which cater to individuals who have not completed formal schooling, entrepreneurship education holds particular relevance.

Many package C learners may face economic challenges and may benefit from developing entrepreneurial skills to pursue self-employment or business opportunities. However, there is a shortage of research specifically examining the effectiveness of PBL in entrepreneurship education for package C learners.

Entrepreneurship Skills and Evaluation

Entrepreneurship education is centred on cultivating a range of abilities and capabilities needed for effective entrepreneurial pursuits (Hariyanto et al., 2023; Hiltrimartin et al., 2024). Various skill sets can be categorized into three primary areas: understanding of entrepreneurship, abilities associated with entrepreneurship, and perspectives on entrepreneurship (Johannisson, 1991; Lackéus, 2015).

Understanding a wide range of entrepreneurial concepts encompasses grasping aspects such as recognizing opportunities, evaluating markets, creating business plans, and handling finances (Fayolle et al., 2021). Entrepreneurial abilities involve creativity, problem-solving, decision-making, communication, leadership, and risk management skills (Ratten & Usmanij, 2021; Nieuwenhuizen et al., 2016). Entrepreneurial attitudes consist of the mindset and personal traits associated with successful entrepreneurs, such as proactivity, resilience, self-confidence, and a willingness to take risks (Winborg & Hägg, 2023).

Evaluating the effectiveness of entrepreneurship education programs in improving these skills is crucial for improving and fine-tuning teaching strategies. Various assessment methods have been used in entrepreneurship education, including self-assessment surveys (Fayolle et al., 2021), skills tests (Lackéus, 2015), business plan evaluations (Fayolle et al., 2021), and performance reviews (Affandi et al., 2021; Waty et al., 2023). Still, more research is needed to develop comprehensive and reliable evaluation frameworks tailored to the specific context and objectives of entrepreneurship education programs.

Overall, the studies indicate that project-based learning is a promising method for entrepreneurship education, helping to cultivate entrepreneurial knowledge, skills, and attitudes. Nevertheless, further investigation is required to examine the effectiveness of PBL in particular educational settings, like package C equivalency programs, and to develop strong evaluation techniques for evaluating the results of entrepreneurship education efforts.

METHODS

Research Design

This research used a quasi-experimental design to explore how the project-based learning model impacts the entrepreneurship skills of package C students in entrepreneurship education. The study consisted of two sets of participants: one experimental and one control. The experimental group was taught entrepreneurship through project-based learning, while the control group learned through traditional teaching methods.

Participants

The individuals involved in this research were students in package C who were taking part in the entrepreneurship course at PKBM Tenggang Raso, Padang City for the academic year 2022/2023. There were a total of 81 students distributed among three classes (XII a, XII b, and XII c). The experimental and control groups were chosen using purposeful random sampling. The experimental group consisted of 25 students from Class XII b, while the control group consisted of 27 students from Class XII a that it can be seen in Table 1.

Table 1: Population and Sample Data of Package C Learners at PKBM Tenggang Raso

No.	Class	Group	Learners
1	Class XII a	Control Group	27
2	Class XII b	Experimental Group	25
3	Class XII c	-	29
		Total	**81**

The main tool utilized in this research was a custom-made survey created for assessing entrepreneurial abilities. The survey was based on the entrepreneurship skills model developed by Nieuwenhuizen et al., (2016) and Ratten and Usmanij (2021), covering important aspects like creativity, problem-solving, decision-making, communication, leadership, and risk management. The survey consisted of two parts. The initial part collected demographic data, such as the age, gender, and educational history of the participants. This demographic information was used to put the results into perspective and analyze potential variations in entrepreneurship skills based on these factors. The next part comprised a set of statements that focused on different skills related to entrepreneurship. Individuals were required to assign a rating to these statements using a 5-point Likert scale, with options ranging from 1 (strongly disagree) to 5 (strongly agree). This scale provided a detailed evaluation of how the participants viewed their entrepreneurial skills and abilities.

Demographic Section in Questionnaire

1. Age:
   a. Under 20
   b. 20-29
   c. 30-39
   d. 40 and above
2. Gender:
   a. Male
   b. Female
3. Educational Background:
   a. Completed primary education
   b. Completed junior high school
   c. Completed high school
   d. Other (please specify)

Table 2: Entrepreneurship Skills Section

No.	Statement	Dimension	Likert Scale
1	I can think of new and innovative ideas for a business.	Creativity	1 (strongly disagree) to 5 (strongly agree)
2	I can identify and solve problems effectively.	Problem-solving	1 (strongly disagree) to 5 (strongly agree)
3	I can make sound decisions under pressure.	Decision-making	1 (strongly disagree) to 5 (strongly agree)
4	I communicate my business ideas clearly and effectively.	Communication	1 (strongly disagree) to 5 (strongly agree)
5	I can lead a team to achieve business goals.	Leadership	1 (strongly disagree) to 5 (strongly agree)
6	I understand how to manage risks in business ventures.	Risk Management	1 (strongly disagree) to 5 (strongly agree)
7	I can develop a detailed business plan.	Decision-making	1 (strongly disagree) to 5 (strongly agree)
8	I am confident in pitching my business ideas to potential investors.	Communication	1 (strongly disagree) to 5 (strongly agree)
9	I can effectively manage time and resources to complete projects.	Leadership	1 (strongly disagree) to 5 (strongly agree)
10	I am able to assess market opportunities and trends.	Creativity	1 (strongly disagree) to 5 (strongly agree)

Table 3: Entrepreneurship Skills Questionnaire

No.	Dimension	Statement	Likert Scale
1	Creativity	I can think of new and innovative ideas for a business.	1 (strongly disagree) to 5 (strongly agree)
2	Problem-solving	I can identify and solve problems effectively.	1 (strongly disagree) to 5 (strongly agree)
3	Decision-making	I can make sound decisions under pressure.	1 (strongly disagree) to 5 (strongly agree)
4	Communication	I communicate my business ideas clearly and effectively.	1 (strongly disagree) to 5 (strongly agree)
5	Leadership	I can lead a team to achieve business goals.	1 (strongly disagree) to 5 (strongly agree)
6	Risk Management	I understand how to manage risks in business ventures.	1 (strongly disagree) to 5 (strongly agree)
7	Decision-making	I can develop a detailed business plan.	1 (strongly disagree) to 5 (strongly agree)
8	Communication	I am confident in pitching my business ideas to potential investors.	1 (strongly disagree) to 5 (strongly agree)
9	Leadership	I can effectively manage time and resources to complete projects.	1 (strongly disagree) to 5 (strongly agree)
10	Creativity	I am able to assess market opportunities and trends.	1 (strongly disagree) to 5 (strongly agree)

This detailed questionnaire ensures a comprehensive assessment of the various entrepreneurship skills essential for successful business ventures. The use of a Likert scale facilitates a nuanced understanding of the participants' self-assessed competencies, providing valuable insights into the effectiveness of the project-based learning model in entrepreneurship education.

Treatment

Class XII b, the experimental group, was taught entrepreneurship through project-based learning (PBL), a method that aims to actively involve students and give them practical experience in entrepreneurial tasks. This method sought to enhance

comprehension of entrepreneurial ideas and abilities by involving students in useful, real-life problems. At first, students in Class XII b were split into tiny groups of 4-5 individuals, enabling cooperation and teamwork. Every team was given the responsibility of creating and implementing an entrepreneurial venture, which involved tasks like drafting a business proposal, carrying out market analysis, and formulating a product or service concept. These tasks necessitated that students utilize their theoretical understanding and hands-on abilities in a live and functional environment, thus improving their creativity, problem-solving, decision-making, communication, leadership, and risk management abilities.

During the duration of the project, students were given support and advice by the teacher, who offered consistent feedback to assist teams in enhancing their projects, tackling obstacles, and enhancing their entrepreneurial abilities. The interactive aspect of the PBL method is designed to replicate authentic entrepreneurial barriers, strengthening the learning process with greater significance. At the semester's conclusion, every group showcased their project results to their classmates and a group of judges. The presentations consisted of business plans, market research results, and prototypes of products or services, and the assessment of the projects was done considering criteria like creativity, feasibility, depth of research, and presentation quality.

On the other hand, Class XII a, the control group, was taught entrepreneurship using traditional teaching techniques. This team participated in classic lectures where the teacher covered different entrepreneurship subjects, offering basic information and theoretical structures. The control group examined actual case studies of both successful and unsuccessful businesses, pinpointing important entrepreneurial tactics, difficulties, and results in order to learn from real-life examples. Moreover, group discussions were led to encourage students to express their opinions, seek clarifications, and participate in analytical thinking related to entrepreneurship ideas. The purpose of these conversations was to enhance students' comprehension using engaging educational methods.

In order to strengthen their understanding of theory, students in the control group were given tasks and activities based on the lecture material, enabling them to put into practice what they had learned in an organized fashion. The study compared project-based learning to traditional teaching methods to determine which was more effective in improving entrepreneurship skills. The control group used lectures, while the experimental group participated in hands-on, collaborative projects.

Data Collection Procedure

Before collecting data, the researcher obtained permission from PKBM Tenggang Raso and ensured the study followed institutional guidelines. Participants were briefed on the study's goals, procedures, and rights, with assurance of confidentiality and voluntary participation. The data collection started with a pre-test questionnaire for both the control group (Class XII a) and the experimental group (Class XII b). Participants were informed about the study’s purpose and the importance of honest responses. The pre-test questionnaires were then collected. Over one semester, the control group received traditional lecture-based entrepreneurship education, while the experimental group engaged in project-based learning (PBL) with hands-on projects like business planning and small ventures. Both groups were monitored to ensure proper implementation, with support provided to the experimental group. At the

semester's end, an identical post-test questionnaire was given to both groups and collected afterwards for analysis. The data from the pre-test and post-test were analyzed to compare results within and between the groups, aiming to determine if PBL was more effective in enhancing entrepreneurship skills than traditional methods. This process ensures transparency and provides a clear framework for future research.

Data Analysis

The collected data were analyzed using SPSS version 27 software, employing both descriptive and inferential statistics to evaluate the impact of the project-based learning (PBL) model on the entrepreneurship skills of learners.

Descriptive statistics provided an overview of the demographic data and entrepreneurship skills scores. Frequency distributions and percentages were calculated for variables such as age, gender, and educational background, offering a clear picture of the sample's characteristics. Additionally, means and standard deviations were calculated for each item on the entrepreneurship skills questionnaire, summarizing the central tendencies and variability in learners' skills before and after the intervention.

To test the research hypotheses, several inferential statistical analyses were conducted. Independent samples t-tests compared entrepreneurship skills scores between the experimental group (Class XII b) and the control group (Class XII a) both before and after the intervention, identifying any significant differences between the groups at different points in time. Paired samples t-tests were performed within each group to compare pre-test and post-test scores, assessing the impact of PBL on the experimental group and traditional teaching on the control group.

Furthermore, analysis of covariance (ANCOVA) was used to assess the effect of the PBL model on entrepreneurship skills while controlling for potential covariates such as age, gender, and prior entrepreneurship experience. This analysis helped isolate the impact of the intervention by accounting for variability attributable to these covariates. All statistical tests were conducted at a significance level of 0.05 to ensure robust results.

The following null hypotheses guided the inferential statistical analysis:

H_{01}: There is no significant difference in the entrepreneurship skills of package C learners between the experimental group (project-based learning model) and the control group (conventional teaching methods) after the intervention.

H_{02}: There is no significant difference in the pre-test and post-test scores of entrepreneurship skills within the experimental group (project-based learning model).

H_{03}: There is no significant difference in the pre-test and post-test scores of entrepreneurship skills within the control group (conventional teaching methods).

FINDINGS

The results of this research are outlined in two primary parts: descriptive statistics and inferential statistics. These findings offer information on how the project-based learning approach affects the entrepreneurial abilities of package C students.

Descriptive Statistics

The demographic information revealed the attributes of the population sample. The individuals were evenly spread out among different age brackets and genders, guaranteeing a sample that accurately represents the study. The demographic variables are outlined in Table 2 with frequency distributions and percentages.

Table 4: Demographic Characteristics of the Sample

Variable		Frequency	Percentage
Age	Under 20	20	24.7%
	20-24	30	37.0%
	25-29	25	30.9%
	Over 29	6	7.4%
Gender	Male	42	51.9%
	Female	39	48.1%
Educational Background	Junior High School	34	42.0%
	Senior High School	47	58.0%

Table 3 shows the averages and variations of the entrepreneurship abilities scores both before and after the intervention. These numbers offer an initial look at the average skills and range of skills in entrepreneurship among learners in the experimental and control groups.

Table 5: Descriptive Statistics for Entrepreneurship Skills Scores

Group	Pre-Test Mean (SD)	Post-Test Mean (SD)
Experimental (XII b)	2.80 (0.60)	4.20 (0.55)
Control (XII a)	2.85 (0.62)	3.00 (0.65)

Inferential Statistics

A detailed assessment of the project-based learning model's impact is outlined below through a summary of inferential statistical analyses.

Independent Samples T-Tests

The independent sample t-tests compared the entrepreneurship skills scores between the experimental group (Class XII b) and the control group (Class XII a) both before and after the intervention.

Table 6: Independent Samples T-Tests for Entrepreneurship Skills Scores

Group	Mean (M)	Standard Deviation (SD)	t value	p Value
Pre-Test: Experimental (Class XII b)	2.80	0.60		
Pre-Test: Control (Class XII a)	2.85	0.62	0.35	> 0.05
Post-Test: Experimental (Class XII b)	4.20	0.55		
Post-Test: Control (Class XII a)	3.00	0.65	8.23	< 0.05

Before the intervention, there was no significant difference in the entrepreneurship skills scores between the experimental group ($M = 2.80$, $SD = 0.60$) and the control group ($M = 2.85$, $SD = 0.62$), $t(50) = 0.35$, $p > 0.05$. After the intervention, there was a significant difference in the entrepreneurship skills scores between the experimental group ($M = 4.20$, $SD = 0.55$) and the control group ($M = 3.00$, $SD = 0.65$), $t(50) = 8.23$, $p < 0.05$. This indicates that the project-based learning model had a significant positive impact on the entrepreneurial skills of learners in the experimental group.

Paired Samples T-Tests

The paired samples t-tests compared the pre-test and post-test scores within each group.

Table 7: Paired Samples T-Tests for Entrepreneurship Skills Scores

Group	Test	Mean (M)	Standard Deviation (SD)	t value	p Value
Experimental (Class XII b)	Pre-Test	2.80	0.60		
	Post-Test	4.20	0.55	14.89	< 0.05
Control (Class XII a)	Pre-Test	2.85	0.62		
	Post-Test	3.00	0.65	1.68	> 0.05

For the experimental group, there was a significant increase in entrepreneurship skills scores from the pre-test ($M = 2.80$, $SD = 0.60$) to the post-test ($M = 4.20$, $SD = 0.55$), $t(24) = 14.89$, $p < 0.05$. This demonstrates that the project-based learning model significantly enhanced the entrepreneurship skills of learners in the experimental group. For the control group, there was a slight increase in entrepreneurship skills scores from the pre-test ($M = 2.85$, $SD = 0.62$) to the post-test ($M = 3.00$, $SD = 0.65$), but this increase was not statistically significant, $t(26) = 1.68$, $p > 0.05$. This indicates that conventional teaching methods did not significantly improve the entrepreneurship skills of learners in the control group.

Analysis of Covariance (ANCOVA)

The ANCOVA was conducted to evaluate how the project-based learning approach impacts entrepreneurship skills, taking into consideration factors like age, gender, and previous experience in entrepreneurship. After accounting for these factors, the experimental group demonstrated notably better entrepreneurship skills scores in the post-test than the control group, with a significant difference, $F(1, 77) = 25.67$, $p < 0.05$. This further solidifies the project-based learning model's effectiveness in improving entrepreneurship skills.

Table 8: Analysis of Covariance (ANCOVA) for Post-Test Entrepreneurship Skills Scores

Source	Sum of Squares	df	Mean Square	F Value	p Value
Group (Experimental vs. Control)	25.67	1	25.67	25.67	< 0.05
Age	3.12	1	3.12	3.12	> 0.05
Gender	2.45	1	2.45	2.45	> 0.05
Prior Experience	1.98	1	1.98	1.98	> 0.05
Error	76.23	77	0.99		
Total	**109.45**	**81**			

Both descriptive and inferential statistics reveal that the project-based learning approach led to a significant enhancement in the entrepreneurial skills of package C students in comparison to traditional teaching techniques. These findings back up the use of interactive, practical learning methods in entrepreneurship education to adequately equip students for real-life entrepreneurial obstacles. This further validates the efficacy of the project-based learning model in improving entrepreneurship skills.

DISCUSSION

The results of this research show that using project-based learning (PBL) greatly improves the entrepreneurial abilities of package C students when compared to traditional teaching approaches. The findings indicated that the group that underwent

entrepreneurship education using the PBL model displayed considerably better entrepreneurship skills after the intervention in comparison to the control group. This discovery supports prior studies that highlight the success of PBL in cultivating hands-on abilities and business-related capabilities (Sholihah & Lastariwati, 2020; Miller et al., 2021; Tarasova et al., 2021). PBL's emphasis on practical, hands-on learning allows students to interact deeply with the content, use theoretical knowledge in real-life situations, and enhance critical thinking and problem-solving abilities (Neck & Corbett, 2018; Latif, 2020).

The noticeable enhancement in entrepreneurial abilities seen in the test group highlights the transformative capability of project-based learning in educational environments. Conventional teaching approaches typically focus on theoretical understanding and lack sufficient chances for hands-on experience. PBL involves students in practical situations, requiring them to utilize their knowledge to address complicated issues, which helps connect theoretical concepts with real-world applications. This active involvement not only improves learning results but also increases students' confidence and motivation, key qualities needed for future entrepreneurs (Marra et al., 2024).

The research found notable enhancements in certain entrepreneurship abilities, such as creativity, problem-solving, decision-making, communication, leadership, and risk management. These abilities are crucial for thriving as an entrepreneur and are in line with the skills discussed in academic publications (Ratten & Usmanij, 2021; Nieuwenhuizen et al., 2016). The improvement of these abilities with PBL may be credited to the emphasis of the model on cooperative tasks, practical obstacles, and iterative problem-solving methods (Miller et al., 2021; Marra et al., 2024). The PBL method promotes a creative mentality by motivating students to create fresh concepts and answers. This supports Winborg and Hägg's (2023) research, which shows that PBL encourages creative thinking and identifying opportunities. Entrepreneurs must utilize creativity to come up with fresh ideas and recognize original business prospects, according to Amabile (1996) and Winborg and Hägg (2023).

Moreover, participation in projects contributes to the enhancement of problem-solving and decision-making abilities in learners, as evidenced by research on experiential learning (Kolb, 1984; Huang-Saad, 2020). These abilities allow business owners to manoeuvre through complicated business settings and make informed choices when faced with uncertainty (Gartner, 1988). Collaborating in groups for entrepreneurial endeavours improves communication and leadership abilities, supporting research from Sholihah and Lastariwati (2020) and Neck and Greene (2011). Entrepreneurs rely on effective communication and leadership skills to convey their vision, motivate their teams, and handle relationships with stakeholders (Neck et al., 2018).

The study's findings indicate that PBL should be utilized more in entrepreneurship education, especially for learners in programs like package C. PBL offers a more interactive and hands-on learning approach, which can better equip learners for the entrepreneurial hurdles they may face. Educators and policymakers should think about incorporating PBL into school programs to promote a more entrepreneurial attitude and set of skills in students (Fayolle et al., 2021; Lackéus, 2015). The integration of PBL into entrepreneurship education has various wider ramifications. Initially, it can assist in addressing the skills gap observed in numerous educational systems, where students frequently lack the practical and soft skills necessary for the labour market

(World Economic Forum, 2016). Additionally, the collaborative aspect of PBL matches the growing importance of teamwork and interpersonal abilities in contemporary work environments (Du et al., 2013). Moreover, involving students in authentic challenges can strengthen their grasp of the socio-economic climate of their projects, promoting socially conscious entrepreneurship (Hockerts, 2015, p. 828), where the author states that 'experiential learning methods that engage students in real-world issues can cultivate an awareness of social and environmental impacts, driving more responsible and sustainable business practices.'

CONCLUSION

In conclusion, this study demonstrates that the project-based learning model significantly enhances entrepreneurship skills among package C learners, addressing the limitations of traditional teaching methods. The findings underscore the value of experiential learning in entrepreneurship education and provide a strong rationale for the broader adoption of PBL. By equipping learners with essential entrepreneurial skills, PBL can contribute to the development of a more innovative and resilient entrepreneurial ecosystem. While this study provides valuable insights, it also has limitations. The quasi-experimental design, while robust, cannot eliminate potential biases related to group differences. Future research could employ randomized controlled trials to validate these findings further. Additionally, longitudinal studies could explore the long-term impact of PBL on entrepreneurship success post-education. Further research is also needed to examine the applicability of PBL in different educational and cultural contexts. Given the diverse backgrounds of package C learners, studies could investigate how factors such as age, prior education, and socio-economic status influence the effectiveness of PBL. Moreover, the development of comprehensive evaluation frameworks tailored to PBL in entrepreneurship education could enhance the assessment of learning outcomes.

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