



The Impact of PjBL on Creative Products and Entrepreneurship Subjects on Students' Entrepreneurial Intention and Readiness Vocational Schools-Centers of Excellence

Hasanuddin Hasanuddin^{1,*}, Eduart Wolok¹, Sunardi Sunardi¹, Esta Larosa¹

¹Mechanical Engineering Education Study Program, Universitas Negeri Gorontalo, Gorontalo, Indonesia

*Corresponding author. Email: hasanuddin76@ung.ac.id

ABSTRACT

Skills competency learning in vocational high schools is designed to equip students with entrepreneurial knowledge through creative and entrepreneurial product subjects. Entrepreneurship learning in vocational schools is carried out through the implementation of the project-based learning model as an effort to prepare graduates who have the intention and readiness to become entrepreneurs. This study aims to analyze the contribution of project-based learning implementation in the subject of creative entrepreneurship products to the entrepreneurial intentions and readiness of Center for Excellence Vocational High School students in Gorontalo Province. The study used a quantitative approach to a non-experimental survey design, in which data was collected using a questionnaire. The sample in this research was 106 class. The data collection method was by questionnaire and the research results were analyzed using regression analysis. The conclusion of this research is that project-based learning in creative product and entrepreneurship subjects contributed 42.3% to entrepreneurial intentions and 33.6% to the entrepreneurial readiness of Central Vocational School of Excellence students. on the competency of Machining Engineering skills in Gorontalo Province.

Keywords: *PjBL model, Entrepreneurial Intention, Entrepreneurial Readiness.*

1. INTRODUCTION

Vocational High Schools not only prepare students to be ready to work in certain fields by filling job vacancies but also prepare students who have the knowledge and entrepreneurial skills to create jobs. Therefore, entrepreneurship is important to instill in students from an early age through learning activities at school. Entrepreneurship is the activity of creating, discovering, evaluating and exploiting opportunities to produce services and products [1]. Entrepreneurship has an impact on a country's economic growth, job creation, and innovation [2]. Currently, entrepreneurship is an excellent career alternative [3].

To prepare vocational school graduates to become entrepreneurs after completing their education, efforts are needed to increase students' entrepreneurial intentions through learning creative and entrepreneurial projects to encourage the birth of potential young entrepreneurs armed with expertise in their field of knowledge. Entrepreneurial intention is the subjective probability of someone involved in entrepreneurship to create a company or new job opportunity [4]. A person's entrepreneurial intentions

can be trained through relevant activities accompanied by practice so that they can hone their skills through direct experience [5]. Practicing activities that can increase the adversity quotient, self-efficacy, and need for achievement can simultaneously shape students' entrepreneurial intentions [6].

The current vocational school curriculum has attempted to provide students with entrepreneurship education through the integration of skills competencies with entrepreneurship education in the form of Creative Products and Entrepreneurship subjects. Decree of the Minister of Education and Culture Number 17/M/2021 concerning the Center of Excellence Vocational High School Program further strengthens the importance of entrepreneurship education in Vocational Schools, where the Center of Excellence Vocational School program aims to produce graduates who are absorbed in the world of work or become entrepreneurs through in-depth vocational education alignment. and comprehensive with the world of work [7].

One aspect that supports entrepreneurship education in the Center of Excellence Vocational

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A. Kusumastuti et al. (eds.), *5th Vocational Education International Conference (VEIC 2023)*,

Advances in Social Science, Education and Humanities Research 813,

https://doi.org/10.2991/978-2-38476-198-2_65

School program is the subject of creative projects and entrepreneurship. Through creative projects and entrepreneurship subjects, it is hoped that students can create creative projects that are in accordance with the skill competencies that students are pursuing at school. So that vocational school graduates are expected to not only be good at knowledge, but are expected to be able to fulfill their needs independently by becoming entrepreneurs through the knowledge and skills acquired at school.

Creative and entrepreneurial project learning designed by teachers has a big influence on the success of the learning process. In creative project and entrepreneurship subjects, the learning process is an important aspect to help students understand and apply the material studied. Project-based learning is an appropriate model to use in creative and entrepreneurial project subjects. Project based learning provides student-centered learning opportunities, where students are actively involved in completing projects collaboratively.

Project based learning places students in learning activities through research to complete learning projects and produce work [8]. To encourage students' skills in producing contextual work either individually or in groups, it is highly recommended to use a project-based learning approach [9]. Project-based learning allows students to work in teams, discover new ideas, and develop existing ideas further. This is because the main task of students in this learning model is to improve the skills of planning, designing and making creative products.

Project-based learning is an authentic learning model that can train students' abilities to plan, implement and evaluate projects in the real world, thus facilitating students to think creatively and innovate. The project-based learning model is effective for increasing entrepreneurial attitudes, entrepreneurial interest and motivation as well as learning achievement. Project-based learning can foster entrepreneurial spirit, entrepreneurial intentions and student entrepreneurial learning outcomes [10].

The application of the project-based learning model in creative and entrepreneurial project subjects is able to create: (1) form entrepreneurial character, science process skills and high-level thinking, (2) increase interest and achievement in learning entrepreneurship, (3) increase understanding of entrepreneurship and the internalization process characteristics of entrepreneurs, (4) increasing creativity, skills and learning outcomes, (4) high mastery of entrepreneurial soft skills and business skills, (5) being able to process potential into a creative product, (6) fostering an entrepreneurial spirit,

(7)) increase leadership abilities and self-confidence, (8) increase entrepreneurial intentions and creative thinking abilities, and (9) increase students' entrepreneurial mindset and entrepreneurial skills [11].

Based on the theory and research findings above, it can be concluded that project-based learning in creative project and entrepreneurship subjects can increase vocational school students' entrepreneurial intentions and readiness. Entrepreneurial intention can be interpreted as the process of searching for information that can be used to achieve the goal of establishing a business [12]. Intentions are represented by four factors, namely: desires, preferences, plans and behavior expectations. Desires are something within a person in the form of a desire to start a business. Preferences are something in a person that shows that entrepreneurship is a need that must be achieved. Plans are a hope that exists within a person to start a business in the future. Meanwhile, behavioral expectations are the possibility of entrepreneurship followed by the target of starting a business [13]. Entrepreneurial readiness is a form of maturity of an individual in terms of knowledge, skills and experience in building and developing a business that will be started. There are three very important readiness provisions to anticipate for someone entering the business world, including: mental readiness, knowledge and skills readiness, and resource readiness [14].

Based on the description above, this research aims to analyze: (1) the contribution of project-based learning in creative product and entrepreneurship subjects to the entrepreneurial intentions of Central Vocational School of Excellence students in Machining Engineering skills competency in Gorontalo Province, and (2) the contribution of project-based learning in Creative product and entrepreneurship subjects on the entrepreneurial readiness of Center of Excellence Vocational School students on Machining Engineering skills competency in Gorontalo Province.

2. RESEARCH METHODS

This research uses a quantitative survey type approach. This research is non-experimental because the researcher did not provide any treatment to the research subjects. This research examines the contribution of project-based learning in creative product and entrepreneurship subjects to the entrepreneurial intentions and entrepreneurial readiness of Center of Excellence Vocational School students in machining engineering skills competency in Gorontalo Province. This research was carried out

at vocational schools in Gorontalo Province that provide machining engineering competencies, namely SMK Negeri 3 Gorontalo, SMK Negeri 1 Marisa, and SMK Negeri 1 Paguyaman. The sample in this research was 106 class. The data collection method was by questionnaire and the research results were analyzed using regression analysis.

3. RESEARCH RESULTS AND DISCUSSION

Before testing the hypothesis, the analysis prerequisite tests are first carried out, namely the normality test and linearity test for each variable: project-based learning in the subjects of creative products and entrepreneurship (X), entrepreneurial intentions (Y₁), and entrepreneurial readiness (Y₂). The prerequisite analysis test was carried out with the help of SPSS 22, the results are presented as follows.

Table 1. Normality Test Results

Variable	Sig.	Criteria	Conclusion
X	0.173	Sig. \geq 0.05	Normally Distributed
Y ₁	0.200	Sig. \geq 0.05	Normally Distributed
Y ₂	0.200	Sig. \geq 0.05	Normally Distributed

Table 2. Linearity Test Results

Variable	Sig.	Criteria	Conclusion
X-Y ₁	0.740	Sig. \geq 0.05	Linier
X-Y ₂	0.820	Sig. \geq 0.05	Linier

After the analysis prerequisites have been tested and the results are met, then the hypothesis test is carried out. The first hypothesis of this research is: there is a contribution of project-based learning in creative product and entrepreneurship subjects (X) to entrepreneurial intentions (Y₁). The first hypothesis testing uses simple regression analysis with the help of SPSS version 22.0. The results of the hypothesis test are as follows.

Table 3. Hypothesis Test Results X-Y₁

Variable	r ² value	t value	Koef.	Konst.
X-Y ₁	0.423	0.000	0.490	38.104

Based on table 3 above, the regression equation is $Y_1 = 38.104 + 0.490X$. This equation shows that the regression coefficient value is positive at 0.490,

meaning that if the value of the project-based learning variable in creative product and entrepreneurship subjects (X) increases by one unit, entrepreneurial intentions (Y₁) will increase by 0.490 units. The coefficient of determination of 0.423 means that the project-based learning variable in creative product and entrepreneurship subjects (X) contributes 42.3% to entrepreneurial intentions (Y₁).

The results of this research indicate that project-based learning in creative product and entrepreneurship subjects contributes positively to entrepreneurial intentions. These results are in accordance with research [15], which revealed that the project-based learning model is effective for increasing entrepreneurial attitudes, entrepreneurial intentions and motivation. Project-based learning can also foster entrepreneurial spirit and entrepreneurial intentions.

This happens because project-based learning trains many aspects of entrepreneurial intention, including students being involved in investigations, solving problems and meaningful tasks, working autonomously to construct their own knowledge, and producing real products. The implementation of project-based learning in creative product and entrepreneurship subjects provides students with the opportunity to plan projects to be undertaken, select materials and tools, and develop procedures to be carried out so that students can carry out various innovations based on the results of investigations and teamwork. This really supports the process of developing students' entrepreneurial intentions.

The second hypothesis of this research is: there is a contribution of project-based learning in creative product and entrepreneurship subjects (X) to entrepreneurial readiness (Y₂). Testing the second hypothesis uses simple regression analysis with the help of SPSS version 22.0. The results of the hypothesis test are as follows.

Table 4. Hypothesis Test Results X-Y₂

Variable	r ² value	t value	Koef.	Konst.
X-Y ₂	0.336	0.000	0.471	40.209

Based on table 4 above, the regression equation is $Y_2 = 40.209 + 0.471X$. This equation shows that the regression coefficient value is positive at 0.471, meaning that if the value of the project-based learning variable in creative product and entrepreneurship subjects (X) increases by one unit, entrepreneurial readiness (Y₂) will increase by 0.471 units. The coefficient of determination value of 0.336 means that the project-based learning variable in creative product and entrepreneurship subjects (X) contributes 33.6% to entrepreneurial readiness (Y₂).

The results of this research show that project-based learning in creative product and entrepreneurship subjects contributes positively to entrepreneurial readiness. The project-based learning model is suitable for increasing students' entrepreneurial competence because students are provided directly through training in making an innovative product and marketing their product, so that the application of the project-based learning model contributes to student independence in producing an entrepreneurial product which is ultimately able to make students economically independent.

Training is a substantial factor that has a strong influence on entrepreneurial attitudes, in this case entrepreneurial readiness. This means that the existence of entrepreneurship training will influence the attitude of individual readiness in starting and developing a business [16]. Entrepreneurship education and training is a determining factor in the development and sustainability of a business, because training leads individuals to have entrepreneurial readiness [17]. Entrepreneurship training will shape the positive characteristics of an individual so that it will stimulate him to have readiness for entrepreneurship [18].

4. CONCLUSION

Based on the research results, it can be concluded that: (1) project-based learning in creative project and entrepreneurship subjects contributed 42.3% to the entrepreneurial intentions of Center of Excellence Vocational School students in the Machining Engineering skills competency in Gorontalo Province, and (2) project-based learning in Creative project and entrepreneurship subjects contributed 33.6% to the entrepreneurial readiness of Center of Excellence Vocational School students in the Machining Engineering skills competency in Gorontalo Province. Based on the research conclusions, it is recommended to schools, especially productive teachers in creative entrepreneurship project subjects, to be able to carry out activities by implementing project-based learning more intensely as an effort to increase the entrepreneurial intentions and readiness of students at the Center for Excellence Vocational School in the Machining Engineering skills competency after completing their education.

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