ANALYSIS OF PROJECT-BASED LEARNING EFFECT ON STUDENT ENTREPRENEURIAL ABILITY

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Abstract

The Covid-19 pandemic has had an impact on all sectors of life. One of the sectors most affected by this pandemic is the economic sector. The reduction of employees causes the high unemployment rate in Indonesia. In addition, the large number of university graduates who have not found work also increases the unemployment rate. This phenomenon makes universities have to make more efforts to prepare their graduates to become graduates who are not only ready to work but are also ready to create their own jobs. This study aims to analyze the effect of project-based learning on student competence. the method used is descriptive quantitative. The process of collecting data using questionnaires and observation sheets. The results obtained by project-based learning have a fairly good influence on students' entrepreneurial abilities.

Keywords: Project based learning, entrepreneurship, entrepreneurial skills

1. Introduction

The COVID-19 pandemic has had an impact on several sectors. The economic sector is one of the sectors that is most affected by the COVID-19 pandemic. Several companies that have gone bankrupt have certainly reduced their employees. Many workers end up being laid off. The Central Statistics Agency (BPS) reported that the number of unemployed in Indonesia was 8.40 million people as of February 2022. That number decreased by about 350,000 people from the position as of February 2021 which reached 8.75 million people. (https://www.BPS.go.id). This condition has improved but still cannot match the unemployment rate before the pandemic.

The number of unemployed is quite a lot, causing its own problems for the government. Several ways have been taken by the government to reduce the number of unemployed in Indonesia. Among them by holding entrepreneurship training, skills and several other trainings aimed at equipping the community so that people can open their own jobs, not only depending on job search.

Unemployment in Indonesia does not only come from those who have not received education or high school graduates, but also come from university graduates. The number of university graduates annually reaches 1.7 million people. This is a threat if these graduates are not ready to work. Especially with the arrival of the era of the industrial revolution 4.0, human power will be significantly replaced by automatic machines based on digital control. This era will rely on robotic technology, internet of things, and artificial intelligence, so that hundreds of jobs will be lost or at least reduced. (Nailariza, et al. 2020). Based on this condition, universities must prepare their graduates to become graduates who are ready to work or ready to create jobs, in this case are young entrepreneurs.

Universities are currently starting to promote various entrepreneurship programs. In essence, entrepreneurship is a source of innovation, job creation and economic growth. Therefore, it is very important to attract young and educated people to become entrepreneurs (Kim and Catheryn. 2015). Entrepreneurship education in universities aims to facilitate understanding of entrepreneurship education programs in universities, thus an intense approach and entrepreneurial development can be carried out (Rafika et al, 2018). Several steps have been taken by universities to prepare graduates who are ready to work or ready to create their own jobs. Higher education efforts are of course also supported by the government. Several steps were taken through learning, entrepreneurship training at various universities and several other entrepreneurial activities. Entrepreneurial activities held include the Indonesian Student Entrepreneurship Program (PKMI), Student Creativity Program (PKM) and Student Business Competition (KBMI). By holding various programs related to

entrepreneurship, it is hoped that it will increase the number of students who will become entrepreneurs and can reduce unemployment in Indonesia (Erlitawati and Alexander, 2020)

In addition to the steps taken, universities are also trying to integrate course learning activities with entrepreneurial activities. For example, in the course of installation engineering. When students have taken the installation engineering course, they can apply the skills acquired to open a simple electrical installation service. Besides that, they can also collaborate, for example, with housing developers to carry out the electrical installation process in housing that has been built. This activity can be done by collaborating between lecturers in entrepreneurship courses and installation engineering.

In order to hone students' entrepreneurial skills, it can also be done using project-based learning methods. Through this method, students are trained to become entrepreneurs, so they can have real experience in running a business. The application of this method is able to generate innovation in student business groups and be able to hone and develop their entrepreneurial character (Wirawan and Oscarius, 2017). Other research related to the application of project-based learning in entrepreneurship shows that project-based learning makes students more independent (Rahmatika, 2016).

Project-based learning has also been developed as a prerequisite learning model for on-the-job learning (Hanif, 2020). Before students enter the world of work, students can take field work practices first. Where previously students had to make a simple product that was feasible to sell based on engineering. By implementing project-based learning activities, students are required to find simple problems and products as solutions to these problems. The hope is that the product will pass the test and be marketable.

Based on these conditions we try to apply project-based learning activities for entrepreneurial activities. The two courses that we collaborate on are the entrepreneurship course and the electronics circuit practicum. Students are required to design a business project armed with knowledge of the course. From the project design developed by students, it is then realized into a business plan which in the future can be developed in real terms.

2. Method

The research method used is a quantitative research method. The research instruments that we used in this study were questionnaires and observations. Questionnaires were filled out by fourth semester students to explore students' entrepreneurial abilities. The questionnaire used uses a scale of 1-5 with categories of strongly agree, agree, quite agree, disagree and strongly disagree (Riduwan, 2015). Observation sheets are filled out by the lecturer in charge of the course and by prospective customers as input related to products marketed by students.

3. Results and Discussion

The questionnaire related to the entrepreneurial competence of students contains thirteen competencies that must be possessed by an entrepreneur (Eddy, 2014). Based on the results of the questionnaire, the results of the assessment are as follows:

Table 1. The results of the questionnaire based on the ability of competence

No	Competency Ability	Results	Interpretation of results
1.	Knowing Your Business	4.2	Good
2.	Knowing The Basic Business	4.0	Good
3.	Having the proper attitude	4.0	Good
4.	Having adequate capital	3.3	Good Enough
5.	Financial competence	3.0	Good Enough
6.	Managing time efficiently	4.0	Good
7.	Managing people	4.0	Good
8.	Satisfying costumer by providing high quality product	4.0	Good
9.	Knowing how to compete	3.7	Good Enough
10.	Copying with regulations and paper work	4.0	Good
11.	Technical competence	4.3	Good
12.	Marketing competence	4.0	Good
13.	Human relation competence	4.1	Good

The data in Table 1 shows that of the 13 indicators of entrepreneurial competence, they have a "good enough" and "good" range of values. The highest results are found in the Technical Competence indicator. In this case, students show good abilities because they are supported by the basics of Engineering that they have learned from semester 1 to semester 3. While the lowest results are in financial management abilities. The financial ability of the majority of students is quite low. Their provision to manage finances is quite minimal. Students have not been able to manage finances well. They are only able to determine the cost of production and break event points which will later be used as the basis for taking profits. In order to improve this ability, it is very necessary to have special materials that collaborate with, for example, lecturers from the accounting study program to give lectures.

The first indicator is that students know enough about the business they are going to run. This is of course because since the beginning of the lecture, students have to learn to design a business, either in the form of products or services related to electronic circuits, which will later be outlined in a business plan.

Furthermore, the second indicator is student knowledge related to the basics of business management. Students understand enough about how business management is designed. With project-based learning, where students independently design their business projects from scratch, students have a better understanding of business management. Besides that, the obligation to promote and market their own business makes students act like traders who have to make their wares sell well in the market. This meets the criteria well for the third indicator.

The fourth indicator is that students must have sufficient capital. Not only skills but capital in the form of material. The results showed quite well. This is because the average student's financial ability is in the less category. So, they have limitations in terms of material capital.

The sixth and seventh indicators are related to the management of time and human resources, the results are given in the good category. Students are able to manage time and human resources. They are quite good at dividing their time using time priority, where since the beginning of their entrepreneurship course, they have been provided with the provision of selecting the right activities at the right time. Where they have to write in a special book about time priority, which activities must be carried out first. In addition, the project-based learning carried out provides students with lessons related to collaboration skills. In this case, students are equipped with the ability to plan and manage other people in running a business.

Then related to relations with outsiders the value obtained is good. Students already have the ability to satisfy customers who use their products or services. There is always a testimonial sheet or feedback that can be used as evaluation material related to the business being carried out. Meanwhile, knowledge related to SWOT in the ninth indicator is not yet visible to students. this requires further research on what causes students' lack of knowledge regarding SWOT analysis on their own efforts.

The ability of students to make rules or guidelines related to the business they run is quite good. Some of the rules that they have set have been made based on the situation and conditions of their environment and business. Students also have good skills in terms of marketing or marketing. This is proven by the exact market share they are targeting. Accuracy in targeting market share makes their business sustainable. The ability of students to establish relationships with outsiders is also quite good. Some students establish relationships with several electronic workshops. they provide their services to help complete repair orders at the workshop. In this case, the context is not as employees, but if the workshop requires assistance for repairing equipment, they can contact the student concerned. In addition, there are some students who have promoted with a system of providing training to youth organizations. Thus, the people in the village will know them. This is very helpful in promoting their business.

Apart from the questionnaire, we also made observations on the lecturers. From the results of observations obtained the fact that students have quite good entrepreneurial abilities. However, there are still some things that still need to be improved. For example, the ability to manage finances and understand your strengths and weaknesses. Regarding the issue of material capital, it cannot be forced because it is related to each other's

financial condition. However, this can be circumvented by becoming a service seller first. The results of this service business can be used for future business development.

From the skills related to the technique, students are quite skilled. Their ability in relation to electronic circuits is quite good. They can use these skills in their business. In relation to product design and design, they can design simple products that are worthy of sale, such as running led, line follower robot, electric bells or smartphone-based motorcycle alarms. With such abilities, it is hoped that their business will quickly develop.

4. Conclusion

The project-based learning model is very suitable to be used for analyzing student entrepreneurial competence abilities. The entrepreneurial abilities of students are quite good, but they are still lacking in terms of financial capabilities. In the future, further research can be carried out related to the analysis of increasing self-understanding abilities. This is related to students' understanding of their strengths and weaknesses.

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