THE APPLICATION OF *THE PROJECT BASED LEARNING MODEL* IN INCREASING STUDENT ENTREPRENEURIAL MOTIVATION IN HIGHER EDUCATION

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Abstract. This study aims to: (1) determine the application of the Project Based Learning model in increasing entrepreneurial motivation for students of Electronic Engineering Education, Faculty of Engineering, UNM; (2) to find out how much the entrepreneurship motivation of students of the Electronics Engineering Education Faculty of Engineering, UNM; (3) to determine the effect of the Project Based Learning model on increasing the entrepreneurial motivation of students. This research is a quantitative research, with a survey research type. The data collection technique used a questionnaire, while the data analysis method used a percentage descriptive analysis in the form of simple linear regression. The research results obtained are: **one**, the application of the Project Based Learning model is in the very good category with an average value of 86%; **two**, Entrepreneurial motivation of students of the Electronics Engineering Education Faculty of Engineering UNM is in the high category with an average score of 80%; **three**, the Project Based Learning model has a positive effect on increasing entrepreneurial motivation by 80%.

Keywords: Project Based Learning Model, Entrepreneurial Motivation.

A. INTRODUCTION

Higher Education is one of the educational institutions in Indonesia that is fully responsible for producing Human Resources (HR) who have competencies and skills and expertise, so that graduates are able to compete in the global world. In the modern era like today, technological developments greatly affect the competitiveness of a country in global competition. Innovation and appropriate technology really require a mastery of skills / competencies and scientific authority in implementing the technology.

The Central Statistics Agency (BPS) in 2021 recorded unemployment in Indonesia in February 2021 as many as 8.75 million people. This number increased compared to February 2020 which was 6.93 million people. When viewed from the percentage of the Open Unemployment Rate (TPT) based on the highest level of education completed in February 2021, SMK graduates are still the most unemployed compared to graduates of other education levels, which is 11.45%, followed by high school graduates with a percentage of 8.55%, and university graduates 6.97% and diploma I/II/III graduates of 6.61%, so it can be concluded that the highest unemployment is graduates from vocational schools and then following high school and then following high school and Higher Education, therefore every graduate of both SMK, SMA and Higher Education is expected to have competence and entrepreneurial spirit so as to be able to create jobs not as job seekers.

Based on the results of research conducted by Indayani, et al. (2020: 202), data Unemployment began in 2020 increased due to the termination of employment of a total of 212,394 workers who were laid off due to the coronavirus (COVID-19) outbreak that hit almost all countries, especially in Indonesia.The problem faced by university graduates today is that there are still limited job opportunities that can accommodate students who have completed their studies to work in accordance with their fields of expertise. The increase in the number of graduates each year is not comparable to the increase in the provision of employment in both government and private institutions. The quality of university graduates is currently not in accordance with the global needs of industry (Ishak, 2018: 22). Efforts in preparing human resources to be able to compete in the industrial era 4.0 and welcome the era of society 5.0, one of which is to strengthen in terms of aspects of technopreneurship and IT (Information Technology) through learning models or methods that can increase creativity and entrepreneurial motivation in students. One effective student-centered learning method applied because it emphasizes contextual learning through complex activities is Project Based Learning (PjBL). Project-based learning is a learning model that uses projects as the core of its learning. This PjBL model is an innovative learning model involving project work where students work independently in constructing their learning and realizing it into a real product.

The focus of learning lies in concepts that involve students in problem-solving investigations and meaningful assignment activities to develop creativity, giving students the opportunity to work autonomously to construct their own knowledge, with peak achievement when producing real products. The problem that arises is during the learning process. The learning process needed is one that can improve the competence of graduates and entrepreneurial motivation.

This study aims to: (1) determine the application of the Project Based Learning model in increasing entrepreneurial motivation of Electronics Engineering Education students, Faculty of Engineering UNM; (2) knowing how much entrepreneurial motivation students of Electronics Engineering Education, Faculty of Engineering UNM; (3) knowing the influence of the Project Based

Learning model on increasing entrepreneurial motivation of FT-UNM Electronics Engineering Education students.

B.METHOD

This research uses a quantitative approach, where the results can be generalized, while the type of research used is a survey method using questionnaires as an instrument for collecting data, in order to obtain information about a number of respondents who are considered representative of a particular population. This study explains the correlation between the application of the Project Based Learning model in increasing student entrepreneurial motivation. The population in this study is Applied Electronics Engineering (D4) students. While the sample was randomly taken as many as 36 fourth semester students regardless of gender and competence. Individual sampling amounts, if the subject is less than one hundred then it is better to take all, but if the subject is large it can be taken between 10%-15% or 20%-25% or more. (Arikunto, 2013: 112). Because the population is only 36 people, the researchers took the whole as a sample. The variables in this study consist of variable X (Independent), namely the Project Based Learning learning model and variable Y (dependent), namely entrepreneurial motivation. Indicators of independent variables (X) the project based learning model is as follows: Project determination; Planning of project completion steps; lecturer monitoring facilities and preparation of project implementation schedules; Preparation of reports and presentation of project results; and Evaluate project results. Indicators of the dependent variable (Y) of entrepreneurial motivation are as follows: Diligent in facing the task; tenacious in the face of adversity; Interested; prefer to work independently; quickly get bored on the tasks of routine tasks; can defend his opinion; firm in his convictions; and happy to look for problems and solve them. The results of the study are analyzed in order to know their validity and reliability. In the analysis stage to determine the validity and reliability of researchers using the SPSS 16 software program.

RESULTS AND DISCUSSION

1. Description of Learning Model Variables The application of the Project Based Learning model in increasing student entrepreneurial motivation can be seen in Table 4.1 below :

Table 4.1. Category: Project Based learning Model Application

Skor Nilai	Frekuensi Absolut	Frekuensi relatif	Kriteria
81-100	31	86 %	Sangat Baik
60-80	4	11 %	Baik
41-60	1	3 %	Cukup Baik
21-40	0	0%	Kurang Baik
0-20	0	0%	Tidak Baik
Jumlah	36	100%	

Source: Processed data

Table 4.1 shows that, the application of the Project Based learning model in general has been applied in the process of learning activities of Electronics Engineering students very well. The histogram of the results of the study can be seen in Figure 4.1
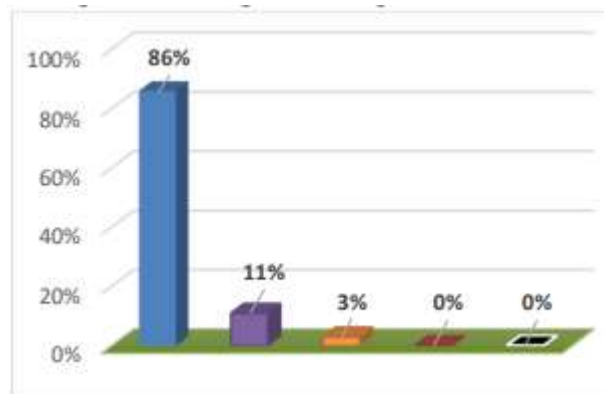

Figure 4.1. Model Applicability Diagram

Project Based Learning performed very well in 31 students (86%). While a total of 4 students (11%) stated that learning activities with the Project Based Learning model were well implemented, and a total of 1 student (3%) stated that learning activities with the Project Based Learning model were quite well-implemented. Thus, the applicability of the learning model with the Project Based Learning model

in students of the D4 Electronic Engineering Education Study Program, Faculty of Engineering, Makassar State University is very well implemented.

2. Description of Entrepreneurial Motivation Variables The results of student entrepreneurial motivation research can be seen in Table 4.2.;

Table 4.2. Category Entrepreneurial Motivation

Skor Nilai	Frekuensi Absolut	Frekuensi relatif	Kriteria
81-100	5	13 %	Sangat Tinggi
60-80	28	80 %	Tinggi
41-60	3	7 %	Rendah
21-40	0	0%	Cukup rendah
0-20	0	0%	Sangat Rendah
Jumlah	**36**	**100%**	

Sumber: Data yang sudah diolah

Table 4.2. The above shows that in general students have high entrepreneurial motivation. The results of the study can be presented in Figure 4.2.
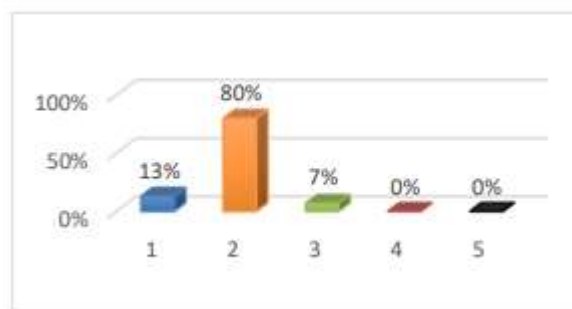

Figure 4.2. Student Entrepreneurship Motivation Diagram

The percentage of answers from respondents with 5 students (13%) stated that they had very high entrepreneurial motivation. While a total of 28 students (80%) stated that they had high entrepreneurial motivation, and a number of 3 students (7%) stated that they had low entrepreneurial motivation. Thus, students of the D4

Electronic Engineering Education Study Program, Faculty of Engineering, Makassar State University have high entrepreneurial motivation.

a. **Prerequisite Test Results**
1) Normality Test Results
The normality test result data is declared normally distributed if the significance is greater than 0.05. The SPSS output normality test also uses statistical analysis, namely using the One Sample Kolmogrov-Smirnov test, here is a normality test table, the value of Y data significance is 0.200 which means the sig value is greater than 0.05. Thus the data is normally distributed.

2) Linearity Test
The significance value in linearity is $0.972 > 0.05$ so that Ho accepts, it can be concluded that between the variables of the Project Based Learning model and the variable of entrepreneurial motivation there is a linear relationship.

3) Hypothesis Test Results
a) Simple Linear Regression Equation
The data from the calculation of simple linear regression analysis using the help of SPSS 16 software, diperoleh regression equation: $Y = 119.262 + 0.812 X$ The meaning of the equation is as follows:
(a) The value of 119.262 means that if the Project Based Learning (X) model value is 0, then the entrepreneurial motivation (Y) value is 119.262.
(b) The variable regression coefficient of the Project Based Learning (X) model is 0.812, meaning that if the Project Based Learning model increases by one score, entrepreneurial motivation (Y) increases by 0.812U

b) Model Significance Test
The hypothesis test is used in order to find out that the extent to which variable X affects variable Y. The results of the study obtained there are values of F 17,430, Sig $0.000 < 0.05$, which means Ho is rejected and Ha is accepted. So a linear equation is obtained, namely the variable (X) has a positive effect on the variable (Y).

(1) Correlation Coefficient
The correlation output obtained a value of 0.505 and a significant value of $0.000 < \alpha$ 0.005. So reject Ho and accept Ha, so that the hypothesis that reads there is an influence of the relationship between variable (X) of the Project Based Learning model and variable (Y) entrepreneurial motivation is accepted. Therefore, it can be concluded that the Project Based Learning model can be applied in order to form students who have entrepreneurial motivation. This research means that the better the applicability of the Project Based Learning model, the higher the motivation for

student entrepreneurship, and vice versa, if the applicability of the Project Based Learning model is not good, the lower the motivation for student entrepreneurship.

(2) Coefficient of Determination

The coefficient of determination obtained is: coefficient (R) of 0.505 so that the coefficient of determination (R2) of 0.255 thus shows that the contribution of the Project Based Learning model to entrepreneurial motivation is 25.5%, while the remaining 74.5% is influenced by other factors outside this study.

DISCUSSION
1. Application of Project Based Learning Model in Increasing Entrepreneurial Motivation

The Project Based Learning model is one of the innovative and creative learning models. Project Based Learning focuses on a concept and principle of discipline, can facilitate students to conduct investigations, solve problems around, and other tasks, be student-centered, and produce real products. In Project Based Learning activities, projects are carried out collaboratively and innovatively, focusing on problems related to student life or the needs of the local community or industry. In this study, the application of the Project Based Learning model is related to its influence in increasing entrepreneurial motivation of electronic engineering students and steps integrated learning steps in the technopreneurship course. The advantage of the Project Based Learning learning model is that it makes the student learning experience more interesting and meaningful and can generate creative and innovative power in creating products produced in their learning activities. The implementation of the Project Based Learning model includes activities; (1) inquire; (2) plan; (3) scheduling; (4) monitoring; (5) assess the results and; (6) evaluate. The description of the Project Based Learning flow above, a more appropriate learning flow carried out in increasing student entrepreneurial motivation is a learning activity that is integrated with the value of entrepreneurship, where the production stage to the sales stage is a practice rather than the value of entrepreneurship. Publication activities carried out with presentation and product sales activities make students practice communicating and promoting, practice innovating in making products, managing risk, planning and creating sales systems, and finding market opportunities. Thus, the application of the Project Based Learning model that is integrated with entrepreneurial values is expected to be able to increase learning achievement in the academic field, namely in affective, cognitive and psychomotor aspects, and be able to increase student entrepreneurial motivation in Higher Education

The results of the study obtained from descriptive analysis show that the application of the Project Based Learning model has an effect on increasing student entrepreneurial motivation. The magnitude of the influence of the application of the

Project Based Learning model on student entrepreneurial motivation is 25.5%. Thus, it can be said that the contribution of the Project Based Learning teaching model to increasing the entrepreneurial motivation of Electronics Engineering students by 25.5%, while 74.5% is influenced by other factors that were not studied in this study.

In general, when viewed from the indicators used to measure Project Based Learning model variables, which include; asking, planning, scheduling, monitoring, assessing results, and evaluating, it can be concluded that the application of the Project Based Learning model in the category is very good, where results are obtained by 86%. S Meanwhile, the variable of entrepreneurial motivation is measured using 10 indicators, namely, Diligent in facing tasks; tenacious in the face of difficulties; interested; prefer to work independently; quickly get bored on routine tasks; can defend his opinion when he is convinced; it is not easy to let go of what he believes in; and enjoys finding and solving problems. In general, student entrepreneurial motivation is in the high category, where results are obtained by 80%. The process of increasing entrepreneurial motivation raises many assumptions that assume that an entrepreneur is born due to heredity. Only the derivative children of entrepreneurs can succeed. But what is clear is that it is the education factor that plays a very important role in shaping students' attitudes, skills, and culture. The above is in line with the opinion of a world-class scientist named Petter F. Drucker that entrepreneurship is neither magic nor mystery. Heredity does not have any influence in terms of entrepreneurship. But entrepreneurship is related to discipline and can be learned by anyone.

D.CONCLUSION

The application of the Project Based Learning model can increase entrepreneurial motivation in students by integrating entrepreneurial values in their learning activities.

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