



The Effectiveness of Local Potential-Based Learning Modules on Creative and Entrepreneurial Project Learning

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Entrepreneurship education is a learning process that requires self-direction and self-management from Shiva. The purpose of this study is (1) to know the learning outcomes of students after using the learning module of creative and entrepreneurial projects; (2) to know the improvement of student learning outcomes. This type of research is experimental research. Experimental design using one group Pretest-Posttest Design with one class using a learning module with the provision of pretest at the beginning of learning and post at the end of learning. The subjects of this study were students of Class XI of Online Business Marketing at SMK 1 Bone Regency, totaling 35 people. The sampling technique used is purposive sampling. Analysis of the effectiveness of the n-gain test module. The results showed (1) the learning outcomes of students in field trials showed the tendency to learn very high category with a percentage of 42.86%; (2) the value of n-gain score in the experimental class of 0.48 then it can be concluded that there was an increase in learning outcomes with the medium category. Thus it can be said that the use of learning modules creative and entrepreneurial projects based on local potential is more effective than the products that have been used so far.

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1. INTRODUCTION

Entrepreneurship is a hot topic in economic policy and labor market, entrepreneurship not only supports economic priorities but also the competitiveness of a country [1,2]. Creating an entrepreneur is a tough task, not only because the thought of entrepreneurship is difficult to form, but the facility of a learning activity is difficult for teachers (Winarno, 2016). Entrepreneurship education is a learning process that requires self-direction and self-management from Shiva. The implementation of entrepreneurship learning is considered to be still found many discrepancies between theory and practice. In addition, the difficulty of learners' ability to see and create entrepreneurial opportunities is a serious problem [3].

Entrepreneurship education seeks to equip students with the knowledge, skills and motivation to drive entrepreneurial success [4]. Entrepreneurship education as formal structural instruction that conveys entrepreneurial knowledge and is developed in students, focusing awareness related to the introduction of opportunities and the creation of new ventures [5]. Entrepreneurship learning needs to innovate into advanced and visionary learning. The use of technology and information in the learning process becomes an absolute requirement in order to support learning in accordance with the needs of the Times.

Entrepreneurship represents creative and innovative skills as the foundation, effort, and source for finding opportunities to be successful. The essence of entrepreneurship is to create something new and different things with creative thinking and innovative actions create opportunities [6]. The condition and potential of the local environment actually has a carrying capacity that must be utilized optimally. Community empowerment should be a solution tool in developing various needs, demands and harmonizing development with the potential of local communities [7]. A region enables the many local cultural capacities that are everywhere capable of becoming opportunities and wealth provided by the global system [8]. Local potentials can be applied to subjects, can also be specialized subjects or implemented in school culture. In addition, it can also be a promotion of learning and teaching existing communities [9].

Based on the background described above, the purpose of this study is to focus on: (1) student learning outcomes in the subjects of creative projects and entrepreneurship; and (2) improving student learning outcomes through the application of entrepreneurship learning modules based on local potential. This study also provides an overview of the influence and quality of learning using local potential-based learning modules compared to conventional learning methods that have been used.

The study aimed to investigate the effectiveness of learning modules on creative and entrepreneurial project learning. The learning modules were developed based on local potential and included course learning achievements, apperception, material, material application, concept understanding, summary, practice questions, answer keys, and self-reflection. The modules were designed to help students learn and measure their individual abilities. The study used an experimental design with one group pretest-posttest study and the acquisition of n-gain score to measure the effectiveness of the learning modules. Data collection was carried out with the help of instruments in the form of questions that were distributed to students to assess cognitive aspects. The source of data in this study comes from primary data obtained directly from students taken through the effectiveness of creative and Entrepreneurial Project Learning modules developed. The study found that the learning outcomes of students in field trials showed a tendency to learn very high category with a percentage of 42.86% after using the learning module of creative and entrepreneurial projects based on local potential. The improvement of students' learning outcomes was measured based on experimental results using the experimental design of one group pretest-posttest study and the acquisition of n-gain score. The value of n-gain score in the experimental class of 0.48 then it can be concluded that there is an increase in learning outcomes with the medium category. The study concluded that the use of learning modules creative and entrepreneurial projects based on local potential is more effective than the products that have been used so far.

2. METHODS

This type of research is experimental research. This research was carried out in June-July 2023

at SMK 1 Bone Regency. The research design used is the treatment of experimental class. Data collection was carried out with the help of instruments in the form of questions that were distributed to students to assess cognitive aspects. The source of data in this study comes from primary data obtained directly from students taken through the effectiveness of creative and Entrepreneurial Project Learning modules developed. Experimental design using one group Pretest-Posttest Design with one class using a learning module with the provision of pretest at the beginning of learning and post at the end of learning [10]. The subjects of this study were students of Class XI of Online Business Marketing at SMK 1 Bone Regency, totaling 35 people. Sampling technique used is purposive sampling, i.e. sampling according to the needs of researchers. Data analysis of the effectiveness of learning modules creative and creative projects based on local potential is carried out by N-gain score test. The formula used to see the gain is while for the N-gain test using the following formula.

$$\text{N-Gain Score} = \frac{X_2 - X_1}{X_{maks} - X_1} \quad (1)$$

Description:

- x_2 = Pretest
- x_1 = Posttest
- X Max = Maximum Value [11]

The magnitude of the effectiveness of learning modules (g factor) based on the N-gain criteria in Table 1 as follows.

Table 1. Study result test score statistics

Value of N-gain	interpretation
$0,70 \leq g \leq 1,00$	High
$0,30 \leq g \leq 0,70$	Medium
$0,00 < g \leq 0,30$	Low
$g = 0$	No Increased Occure
$-1 \leq g < 0$	There was a decline

Gain score analysis was conducted to prove the effectiveness of the Learning Module products of creative and entrepreneurial projects based on

local potential whether the products developed are more effective than the products that have been used so far.

3. RESULTS AND DISCUSSION

3.1 Learning Outcomes Test

The test is a form of evaluation tool to measure how far the teaching objectives have been achieved [12]. Description of cognitive learning outcomes data obtained through pre-test and post-test values, can be seen in Table 2.

Table 2. Study result test score statistics

Description	Statistical Values
Test Subjects	35
Average	80.05
Median	80.00
Std. Deviation	8,17
Variance	23,46
Range	35
Minimum	62,50
Maximum	97,50

Based on the results of descriptive analysis of test data learning outcomes in field trials obtained an average value of 80.05. The minimum score obtained a value of 62.50 and the maximum score obtained a value of 97.50. While the median value obtained by 80.00. Furthermore, to determine the percentage of learning outcomes, learning outcomes test data are grouped into 4 categories Table 3 as follows.

Based on Table 3 shows that the learning outcomes of students in field trials showed that in the very high category there were 3 students with a percentage of 8.57 %. High category there are 15 students with a percentage of 42.86%. Medium category there are 13 students with a percentage of 37.14%. While the lower category there are 4 students with a percentage of 11.43%. Thus the tendency of learners ' learning outcomes in field trials are in the category of high learning outcomes. The test results of students in field trials can be seen in Fig. 1 as follows.

Table 3. Frequency distribution of student learning outcomes tests

Category	Interval	frequency	percentage (%)
Very High	88.22	Up	8.57
high	80,05	88,21	42,86
medium	71,88	80,04	37,14
low	below	71.87	11.43
Total		35	100

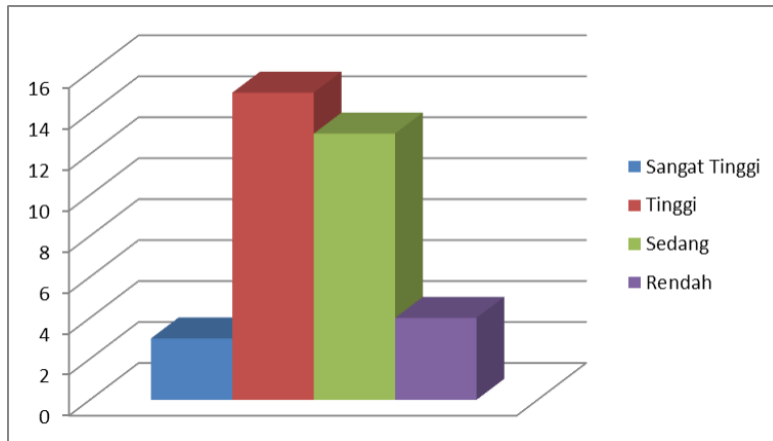


Fig. 1. Graph of test results of students on the implementation of field trials

The experimental results of the application of the learning module of creative and entrepreneurial projects based on local potential in field trials show that consistently the learning model developed is able to improve the learning process. This is shown in the acquisition of learning outcomes of students consistently in the range of high categories in each implementation of field trials. The results of this study are contrary to the results of research conducted by [13] which states that entrepreneurial learning efforts in the implementation of learning assessments include indicators of the implementation of entrepreneurial learning outcomes assessment involves several aspects, such as written tests, observations, practical tests, individual assignments, group assignments that are in the category of less pursued.

3.2 Analysis of Learning Outcomes Improvement

Analysis of learning outcomes improvement using N-gain score analysis was conducted to prove the effectiveness of the Learning Module products Creative and entrepreneurial projects based on local potential are more effective than the products that have been used so far. N-gain score analysis based on learning outcomes in the experimental class. Furthermore, the acquisition of n-gain score was analyzed and interpreted into the N-gain score categorization table as follows.

The results of N-gain score analysis can be seen in Table 4 as follows.

The results of the analysis of n-gain score in the experimental class obtained the pretest mean value of 61.71, the posttest mean value of 80.05 and n-gain score of 0.48 then it can be concluded that there is an increase in learning outcomes with the medium category. Thus it can be said that the use of learning modules creative projects and entrepreneurship based on local potential is more effective than the learning modules that have been used so far.

Table 4. Results of N-gain score analysis

Class	Mean Pretest	Mean Posttest	N-Gain
Experiment	61,71	80,05	0,48

The comparison of learning outcomes in the experimental class based on the pretest and posttest results using the Learning Module creative projects and local potential-based entrepreneurship can be seen in Fig. 2 as follows.

With the results obtained are effective tested modules with the category of increase in learning outcomes are then the module can be used as teaching materials creative project materials and entrepreneurship. The results of this study are in line with research [14] which states that the entrepreneurship learning module based on local potential has been tested as effective and feasible as teaching materials. An effective local potential-base entrepreneurship learning module to improve learning outcomes was also obtained in the study [15].



Fig. 2. Graph comparison of learning outcomes in the experimental class

Several factors cause the effectiveness of the use of modules that module has been validated by material experts, media experts, linguists and lecturers praktikan and declared very valid, very practical and can be used in learning so as to improve learning outcomes. This is in line with research that has been conducted by [16]. Furthermore, the modules are arranged based on classroom learning consisting of course learning achievements and indicators, apperception, material, material application, concept understanding, summary, practice questions, answer keys, and self-reflection so that students can learn and measure their individual abilities. This result is in accordance with research (Rahayu & Sudarmiatin, 2010) stated that learning modules are effective if the student is easy to understand to achieve certain competencies, the systematics of writing modules is easy to understand, module material is relevant to the measured competencies and references used are up-to-date.

The provided text seems to be an excerpt from a research paper titled "The Effectiveness of Local Potential-Based Learning Modules on Creative and Entrepreneurial Project Learning." The text discusses the research methodology, results, and conclusions of the study. It includes information about the experimental design, data collection, analysis of learning outcomes, and the effectiveness of the learning modules.

The text also references other research studies and provides details about the learning outcomes, n-gain score analysis, and the comparison of learning outcomes before and after the implementation of the learning modules. Additionally, it discusses the potential

effectiveness of the learning modules based on the results obtained [17,18].

4. CONCLUSION

Based on the results of research and discussion that has been described, it can be concluded:

1. Learning outcomes of students in uji cobafield trials showed a tendency to learn very high category with a percentage of 42.86% after using the Learning Module creative projects and entrepreneurship-based Local potential. Thus, the tendency of students ' learning outcomes in Uji Cobafield trials are in the category of high learning outcomes.
2. Improvement of students 'learning outcomes by using the Learning Module creative projects and entrepreneurship-based Local potential measured based on experimental results using the experimental design of one group Pretest Posttest Study and the acquisition of n-gain score. The value of n-gain score in the experimental class of 0.48 then it can be concluded that there is an increase in learning outcomes with the medium category. Thus it can be said that the use of learning modules creative and entrepreneurial projects based on local potential is more effective than the products that have been used so far.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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