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The Effect of Problem Based Learning Method on Students' Creative Thinking Ability in Entrepreneurship Craft Subjects in the Covid-19 Era

(Case study on high school students plus Merdeka Soreang)

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A B S T R A C T

The purpose of this study is to find out the differences in students' creative thinking ability using the *Problem Based Learning* Method in prakarya and entrepreneurship subjects, the object of this study is class X SMA Plus Merdeka Soreang students. The method used in this study is a pseudo-experimental method or Quasi Experiment. The results of this study are differences in students' creative thinking ability using the *Problem Based Learning* Method in craft and entrepreneurship subjects in the Covid-19 Era.

A R T I C L E I N F O

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1. INTRODUCTION

Creativity is one of the pillars of entrepreneurial values that must be possessed by every student at every level. In line with the objectives of national education derived from the cultural roots of the Indonesian nation contained in the National Education System Law, No. 20 of 2003 it is said that: "National education aims to develop the potential of students to become human beings who have faith and piety in God Almighty, have a noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic citizens, and responsible"

However, Indonesia's creativity is among the lowest compared to other countries in the world. The Global Creativity Index (GCI) 2015 ranked Indonesia 115th out of 139 countries. Student creativity is still low because learning is currently still dominated by teachers and has not given students the freedom to be able to develop their creativity.

Learning approaches or strategies are formed according to student needs by considering the needs of different students in order to achieve the desired learning goals and produce different results. One of the learning methods that can improve students' creative thinking ability during the Covid-19 period is Problem Learning (PBL). The Problem based learning method was developed on the basis of constructivist learning theory so that students can improve thinking skills in the learning process by using real-world problems as a background for creative thinking in solving problems and applying learning concepts. Through the Problem based learning model, cognitive learning outcomes will improve such as the ability to know, understand, evaluate, interpret a certain object. (Mardiana, Irawati, & Sueb, 2016).

2. METHODS

Research Method comes from Greek which consists of two syllables, namely methodos which means the path or path taken, and penelitiaan comes from the word research "re" which means to seek. So it means that research is carried out through a process of supportingand data with the aim of improving, modifying or developing a research. (Darna, 2018)

The method used in this study is a pseudo-experimental method or quasi-experiment. Quasi-Experimentation is a type of study that compares the effects of manipulation on subjects (experimental groups) and looks at their impact on procedures that are not randomly included by students in the research process (Sugiyono 2013). The design used in the study was "Design Before Testing Before a Group" Arikunto (2010) stated that the pre-test will be applied before the treatment, after the treatment then given the last post-test.

2.1. Kreativitas

Fakhriyani (2016) states that creativity is a human ability that has to do with special achievements in everyday life. Turning new things or something that already exists into a new concept or something that already exists into a new concept, finding ways to solve problems that most people can't find, creating new ideas that never existed. This creativity is very important for students because one of the most targeted and most superior talent traits in the 21st century is creativity. In addition, in the results of the Work Economic Forum the top 3 skills that are

most targeted by industry in all fields are creativity.

Based on the results of Vendiktama's research (((2016) There are several indicators of creativity achievement, namely:

1. Fluency, Fluency is the ability to generate many ideas or ideas.
2. Flexibility, flexibility is the ability to put forward various solutions or approaches to problems
3. Originality, Originality is the ability to spark ideas in original, non-clichéd ways
4. Elaboration, Elaboration is the ability to decipher something in detail.
5. Characteristics, characteristics also affect students' creative thinking skills, because not all students are willing to play an active role in contributing their ideas when discussing.

2.2 *Problem Based Learning* Method

One way to be successful in learning and learning activities is to choose the right teaching method. (Hasmiati, Jumadi, and Rachmawaty 2016) One of the learning methods that can improve students' creative thinking ability during the Covid-19 period is problem-based learning. The Problem based learning model was first introduced by Prof. Howard Barrows at McMaster University Canada in the 1970s. Problem based learning is a learning model that can be applied to develop structures at the curriculum level by placing students in an active role as problem solvers who believe in real-world problems similar to Savery, 2006). Problem based learning not only improves students' creative thinking skills, but can also improve student learning outcomes. The Problem Based Learning model has several stages that allow students to improve their creative thinking skills and academic performance.

Stage 1: Student orientation to the problem the teacher explains the learning objectives, explains the necessary logistics, and motivates students to engage in problem-solving activities.

Stage 2: Organizing students for learning teachers help students define and organize learning tasks related to the problem.

Stage 3: Guiding the iindividual/group experience of teachers encourages students to collect information that is appropriate to carry out experimentation to get explanations and problem solving.

Step 4: Developing idan ipresenting the work, the teacher assists students in planning and preparing appropriate works such as reports, and helps them to share tasks with their friends.

Step 5: Analyzing and evaluating the problem-solving process the teacher helps students to reflect or evaluate their investigations and the processes they carry out.

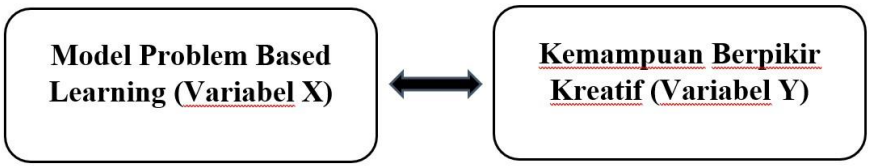

Figure 1. Relationship of Research Variables

3. RESULTS AND DISCUSSION

In this chapter, the process of data management will be presented using useful analysis to describe and describe research data, covering the amount of data, maximum value, minimum value, average value and so on.

Table 1. Descriptive Statistical Analysis

	N	Minimum	Maximum	Mean	Deviation
Pre-Test Eksperimen	22	59	75	69.32	4.824
Post-Test Exsperimen	22	78	95	87.00	5.765
Pre-Test Kontrol	22	51	78	66.82	6.773
Post-Test Kontrol	22	67	89	76.23	6.362
Valid N (listwise)	22				

Source : Processed Data (2022)

Based on the table above, it can be seen that students in the experimental class and control class each numbered 22 students, in the experimental class, a pretest score was obtained for the creative thinking ability of students with the highest score of 75 and the lowest score of 59 with an average score of 69.32 and a standard deviation of 4.824. Then after giving the treatment, the post test questions were given again in the experimental class and obtained the highest scor for the creative thinking ability of students with a score of 95 and the lowest score of 78 with an average score of 87.00 and a standard deviation of 5.765. And in the control class, a pretest score was obtained for the creative thinking ability of students with the highest score of 78 and the lowest score of 51 with an average score of 66.82 and a standard deviation of 6.773. Then after giving the treatment, posttest questions were given again in the control class and obtained the highest score for the creative thinking ability of students with a score of 89 and a score the lowest was 67 with an average score of 76.23 and a standard deviation of 6.362.

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3.1 The Effect of Problem Based Learning Method on Students' Creative Thinking Ability

Based on the results of descriptive statistical analysis and parametric statistical analysis tests conducted in the experimental class, it was shown that a Sig. (2-tailed) value of 0.000 < 0.05 was obtained, it can be concluded that there is a difference in the average student's creative thinking ability to pretest the experimental class with the experiment class post test using the Problem Based Learning learning method. This difference can be seen from the average creative thinking ability between the use of the two methods below.

It was found that the group of students who used the problem-based learning method had a higher average compared to the group of students who used the discovery learning method, that is, the problem-based learning method is more effective than the discovery learning method in improving students' creative thinking ability.

It becomes a natural thing when there is an increase after the learning activity process is completed. Both classes that use problem-based learning methods and classes that use discovery learning methods both experience an increase in creative thinking skills. This can be seen from the increase in the average value of students' creative thinking ability. Before the learning activity, the average score of the experimental class (class X social studies 2) was 69.32 and the average score of the control class (class X social studies 1) was 66.82. The same class experienced an increase in creative thinking skills because both classes received the same allocation of learning time, namely 10 class hours (5 meetings)

4. CONCLUSION

Based on the discussion of the research results, the following conclusions can be drawn:

1. Creativity is one of the pillars of entrepreneurial values that must be owned and needs to be internalized in every student in the learning process in the classroom. The use of problem-based learning models in the learning process makes students more actively participated, including developing a bold, creative attitude and developing a more pleasant learning atmosphere. In addition, students can show the application of creativity in everyday life, therefore students can gain more experiences, new and fun experiences, so as to improve students' creative thinking skills as a source for developing aspects of development in themselves.

2. The ability to think creatively of students after the application of the problem-based learning method, by looking at the results of the posttest score in the experimental class, it can be seen that there is a difference in students' creative thinking ability. The experimental class obtained a post test score with the highest scor for the creative thinking ability of students with a score of 95 and the lowest score of 78 with an average score of 87.00. So based on the results of this study, it can be concluded that there are differences in students' creative thinking ability using the Problem Based Learning Method in pre-work and entrepreneurship subjects in the Covid-19 Era.

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