



Application of Problem Based Learning Models To Improve The Innovative Ability Of Basic School Students

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Abstract. The purpose of this study is to apply a problem based learning model based on improving the ability to think innovations carried out on the Role of Economics. Thus increasing the ability of innovative thinking skills is very important to determine decisions in solving learning problems. In improving the innovative thinking ability of elementary school students, it is used in the Problem Based Learning model on the economic role material. So that the research method used is the experimental method with the design of The One-Group Pretest-Posttest Design. The research population is the fifth grade students at SDN leuwihieum, Jatigede Subdistrict, Sumedang Regency. The instrument used consists of test instruments, namely the Innovative Thinking Skills Test, which aims to find out the improvement of innovative thinking skills and non-test instruments in the form of observation formats, student daily journals and field notes. The importance of research in learning Problem Based Learning models significantly increases Innovative thinking skills while research directs that Primary School teachers can use continuously and continuously in learning Probelem Based Learning models so that their use for Primary School students continues to increase and adds to effective and efficient learning.

Keywords: Problem Based Learning, thinking

INTRODUCTION ~ Education is a very significant change for the nation and the country in one of the demands and challenges faced by the world education in the 21st century and in the future education should be able to produce human resources That has a complete competence in strengthening learning in innovative thinking so that in the learning that is done by educators to learners in the learning process of elementary school there is still a less precise because participants Students in the process of learning is passive, learning is less meaningful for students or less in innovative thinking skills so that in strengthening aspects of hard skills and soft skills are less able to provide assurance that The education that is implemented can produce quality human resources, in accordance with the mandate of national Education law.

In line with the above statement in the learning process by implementing a problem-based learning (PBL) model that corresponds to the characteristics of learners. Among the many models of learning problems based learning (PBL) learning model so that learning model of problem based learning (PBL) is one of the arternative learning to be creative, innovative used to Improving innovative thinking learning towards learners so as to emphasize to active, creative and innovative encourages educators to create a fun learning atmosphere to provide motivation and solve problems that improve Innovative thinking skills.

Models that meet these requirements are problem-based learning models so that the opinions above "learning that students expect to engage in the research process require it to Identifying problems,



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collecting data or using data for troubleshooting. " Further from the problem-based learning Model according to Ratumanan (Heriawan, et al. 2012:7) is "an effective approach to teaching high-level thinking processes. This learning helps students to process the finished information in his mind and organize their own knowledge of the social and surrounding worlds.

The learning Model with a scientific approach in accordance with the 2013 curriculum, among others, Discovery learning, inquiry learning, project and problem based learning. One learning model that uses a scientific approach is the model of problem-based learning (PBL). Referring to the explanation above, PBL could potentially provide a meaningful learning experience, which will provide reinforcement to the aspects of hard skills and soft skills (Karyanto et al, 2014).

In pediatric learning should emphasize learners have an innovative thinking ability so that this is affirmed innovation is the idea of ideas, goods, events, methods that are perceived or observed as a new thing for someone or Community, whether in the form of invention or Discoveri, innovation is held to achieve a certain goal or to solve a particular problem.

In addition to the problem-based learning there are five very important steps in a problem-based learning model that is, (a) The problem is presented and read by some group members, while the other

members take action; such as writing to mark a group's identified facts, (b) Learners discuss what is already known and experienced, (c) Learners discuss what they think, and identify broader issues (Discussing their ideas and formulating hypotheses), (d) Learners identify learning needs (what is needed to prove or disprove their idea), (e) Learners jointly investigate Above all problems according to Wang & Shuler, 1998 (in UusToharudin et al, 2011:102) In learning materials the approach to economic role is the skills of learners in choosing the right economic concepts and principles to use in resolving the issue concept concepts innovative thinking skills are defined as common ideas As the basic concepts of economics being taught. The term principle on the other hand means the basic or legal economic rules used to describe the object and its interactions, such as the legal role of fundamental economic interactions On the other hand, learning is lacking mutual interaction of students ' willingness to learn so that educators should often motivate, motivation to encourage students or learners to do something So that encouragement has innovative thinking skills based on Stigmen can be sourced from anywhere to be a source of energy in doing something to achieve a goal that we want.

So in this article Megambil topics with the implementation of Model-based learning problems towards improving the skills of innovative thinking elementary school



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class V SDN Leuwihieum District
Sumedang.

The methose used in this research is a method of experimentation with the design of one group pre-test and post-test

METHOD

Tabel 1 Desain One-Grup Pretest-posttest

Pretest	Treatment	Posttest
O ₁	X	O ₂

Source: (Sugiyono, 2014: 108)

Description:

O₁ = Pretests value before treatment.

O₂ = Posttest value after receiving treatment.

X = Treatment by applying a problem-based learning model to innovative thinking skills

This research was conducted at SDN state Leuwihieum located in Leuwihieum Hamlet in Jatigede District Sumedang District. The subject of this study is Grade 5 students at SDN Leuwihieum. With a total of 11 people, consisting of 6 male students and 5 female students. Data is collected using observations and tests. Observation was made to see the innovative thinking skills of learners when applying a problem-based learning model and this test is used to obtain the students ' innovative thinking ability data.

So the type of test that used in the type of written test is performance. Tests were conducted to measure students ' innovative thinking skills.

The data analysis techniques in this study used statistical tests conducted using the help of the Microsoft Excel 2010 Program and IBM SPSS Statistics 23. For Windows Software. The Statstik test is used, among others, the normalized test, the research hypothesis test, the N-Gain calculation.

RESULTS AND DISCUSSION

Prior to the hypothesis testing, researchers conducted the first normality test on collected data. Based on the test normality of data pre-test variables innovative thinking ability acquired Kolmogorov-Smirnov value of 0.217 with significance p = 0.04 (P > 0.05). While the test result normality to the post-test data variable variables innovative thinking capability Kolmogorov-Smirnov amounted to 0.163 with significance p = 0.86 (P > 0.05). The results showed that the data spread of innovative thinking capabilities was normal.

Tabel 2 Data Normality Test analysis

Value	Category	Frequency	Percent
Tes	Kolmogorov-Smirnov		
	Statistic	Df	Sig.
Pretest	0,217	25	0,04



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Posttest 0,163 25 0,86

According to table 2 above, see the average difference in each – each value

so that it continues with the Mann-Whitney test.

Tabel 3 Uji Mann-Whitney

Test Statistic	Value
Mann-Whitney U	137.500
Wilcoxon W	462.500
Z	-3.400
Asymp .Sig.(2-tailed)	.001

The Mann-Whitney test results gave Asymp. Sig = 0.001. This indicates that there is a significant difference between the average pretests value and the Postes value.

The treatment is given to the implementation of a problem-based learning model of good and significant impact on the innovative thinking skills of the class V SDN Leuwihieum students because students gain new experience

and problem solving in Receive learning materials so that students are more interested in the study of being creative and innovative and antusiasme in a problem-based model of defense.

On the other hand, the average increase of the pre test and post test results showed that learners (sample research) experienced an increase with an average pre test of 66.24 to 78.36 on the average post test. Whereas based on the gain test the table is as follows:

Tabel 4 Average value Data, Min and Max N-Gain

Class	Average n Gain	Min	Max
One group	0.3536	0.8	8,84

The table of gain above shows that the average research is 0.3536, so it is included in the high category of increase significantly because students have a new and more innovative experience when the learning process Last. The value of posttest is more increased better in the value of post test.

Based on the data exposure of the results above, indicating that the implementation of a problem-based learning Model can

improve the innovative competency of the students in the V class at SDN Leuwihieum in Jatigede District Sumedang. It can be seen from the average posttest value after given better treatment than the average pretests value before given treatment.

In line with the research results above, "problem-based defense model (PBL) One of them has an important principle (a). The problem is the beginning of the learning



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process (b). The problem is based on real-life issues (realistic) (c). Activity-based Learning (d). Problem solving is a goal and also a learning method (e). Group based Learning (collaborative) (F). Provide an authentic experience (G). Engage students as stakeholders (h). Methodology based on Inquiry based learning (i). Prioritizing high level thinking and Communikas.

CONCLUSION

Based on the results and the discussion of the research, can be concluded that the problem-based learning process in the innovative thinking of a elementary school student class V SDN Leuwihieum District of Jatigede District Sumedang. As for the results as the following many are interested in using the process so that a elementary school students have an innovative innovation in thinking and develop analytical skills in the innovative thinking ability of the process Learning in class or outside class so that a super student in his daily life as well as learning is increasing significantly and adds a reference for educators in implementing learning models for Educators In the use of a problem-based learning model (PBL) so that in a factor that affects the implementation of it because it takes the most deepest and isolated school in terms of time and equipment is insufficient.

SUGESTION

Based on conclusions above the researchers are reviewing (a) problem-

based learning models can be applied continuously so that the more effective and efficient for teachers can be considered to be one of the alternative models in Learning. (b) Researchers will use problem-based learning (PBL) models continuously to be better so as to be effective and efficient.

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