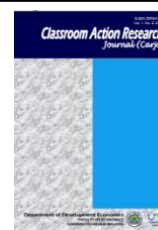




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Problem-Based Learning Application to Increase Critical Thinking Ability and Learning Result of Economic Student Learning

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Abstract

This research aims to know the implementation of the Problem Based Learning model in critical thinking skill and student learning outcome to the Economy subject in the X IIS 3 class SMA Negeri 1 Garum. The research design used was classroom action research. This research was conducted in 2 cycles. Based on research results it was known that there was an improvement of student activity in the X IIS 3. It was showed the percentage of student critical thinking skills results in cycle I for 61,3% and in cycle II is improved for 77%. The improvement of student learning outcome could be seen from the completeness of student learning outcome in the cognitive domain with the post-test average score of students that improved from cycle I for 78,64% improved to be 91,61% in the cycle II. Therefore, it could be concluded that the implementation of Problem Based Learning could critical thinking skills and student learning outcomes in the X IIS 3 SMA Negeri 1 Garum. Suggestion for teacher of Economy The subject was this model could be made as an alternative to improve critical thinking skills and student learning outcomes.

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INTRODUCTION

Every student has been endowed with the ability to think by God. but the level to the criticism of each student is different. Some students have high critical thinking skills, while others have moderate to moderate critical thinking skills. Critical thinking skills can be developed through practice-solving problem solving, for example, from the problems students face directly in their daily lives.

From the problems that arise, students are accustomed to finding a solution to the problem through thinking critically, reasoning, and utilize the creativity of the students. Students' habits in reasoning and criticizing the problems that exist in the environment surrounding the students to develop in their thinking ability. If the learning process teachers familiarize students to develop their thinking skills, students who can think critically in the category of moderate and less, in the end, able to balance the students who initially already can think high.

The ability to think critically provides the right direction in thinking and qualities and helps in determining the relevance of something with others more accurately. Therefore, critical thinking skills are needed in solving problem/solution search. The development of critical thinking skills is an integration of several parts of capability development, such as observation; analysis, reasoning; assessment; decision-making; and persuasion. The better the development of these abilities, the easier it will be for students to find solutions to the learning problems they are facing.

One of the efforts done by the teacher is to implement problem-based learning that is using PBL learning model (Problem Based Learning), the reason to use Problem Based Learning (PBL) is that the students are faced with real problems as the context in learning critical thinking and problem-solving skills, and gain knowledge.

Implementation of learning model conducted in class X IIS 3 SMA Negeri 1 Garum using materials and Payment System. It is expected that students can solve the problems that occur in the payment system that occurred in Indonesia, especially about the issue of circulation of counterfeit money in the community. Students as economic creatures are expected to be able to solve these problems through analysis, reasoning, decision making, and persuasion conducted on small discussion groups established at the beginning of the meeting of learning activities by researchers.

The scope of this research is the application of the Problem Based Learning learning model on Economics subject. This research was conducted in SMA Negeri 1 Garum, Blitar Regency especially in class X IIS 3 with the number of female students as much as 20 and male students as many as 14.

METHOD

This research uses a qualitative research approach because this research is descriptive. This research is descriptive because it only describes the state of application of the Problem Based Learning (PBL) model of learning to improve students' critical thinking ability on economic subjects in SMAN 1 Garum so that student learning outcomes also experience improvement. The qualitative nature of research requires direct involvement of the researcher (active participation) both at the beginning of the lesson and what happens after the implementation of the action on the ground.

While this type of research is a type of Classroom Action Research because the research is done by teachers in their class by way of designing, implementing, and reflecting collaborative and participatory actions to improve teacher performance so that student learning outcomes can increase.

In this classroom action research consists of four series of activities carried out within two cycles. In this classroom action research consists of 4 steps: planning, implementation, observation, and reflection.

Data in this research there are two kinds, namely qualitative data and quantitative data, that is:

1. The qualitative data is the observation result of students' critical thinking ability. The results of teacher observation on the KBM, the results of interviews with teachers and students, as well as the results of documentation.
2. The quantitative data is the result of student worksheet (news article) and the value of pre-test and post-test of students at each meeting

This study uses quantitative and qualitative data analysis, which describes the data by using the numbers then explained through the sentence clearly and in detail. The data analysis technique in this research is done to get the data of student achievement class XI IIS 3 SMA Negeri 1 Garum on economic subjects by giving pre-test and post-test.

RESULTS AND DISCUSSION

The implementation of Problem Based Learning is aimed at improving students' critical thinking ability. According to Bektı Wulandari (2013: 182), PBL is giving problems related to daily life to students and students in groups looking for alternative solutions to solve the problem. This study also observes students' critical thinking skills individually as well as when they are divided into small groups seeking answers and solutions to problems already solved by teachers. PBL prepares students for critical thinking and analysis and for finding and using learning resources. The perspective is reinforced by Sudewi et al (2014) "on learning with the PBI model, students are required to solve the problems presented by digging the information as much as possible then analyzed sought solution of existing problems. PBL models train students the ability to analyze, think critically, and think high level. As for critical thinking, component formulates the problem, give the argument, do induction, do deduction, do the evaluation, and take decision and action.

Preliminary conditions in the classroom before the implementation of problem-based learning show the class in a less conducive atmosphere due to several factors such as the condition in the stuffy classroom, the condition of the student who completed the gym lessons. Initially the critical thinking skills of students who end not to be maximal because in providing analysis of the articles provided by the teacher have not emerged a strong and logical argument.

The result of field note of students critical thinking ability shows there is still some weakness that happened during the cycle I such as Students are still embarrassed to ask questions and answer questions moreover to present their group's answer, during the discussion, there are some group members who do not participate, the student has not been able to express their arguments logically so that opinions expressed are still difficult to accept, and has not seen effective actions in solving problems associated with articles provided teachers and teachers who have not been able to allocate the time appropriately at the end of the lesson. Reflection is done as a form of improvement that must be done by the researcher to fix the weakness that emerged in the implementation of the cycle I.

During cycle II activities, students have begun to understand the learning path and are getting used to ongoing learning. This is indicated by the majority of students already boldly asking questions, answering, and expressing their opinions, maintaining argument during group discussions.

Based on the results of the analysis of student's critical thinking skills after the application of problem-based learning is known that the average aspects that support student's critical thinking skills are all met. This is following the opinion of Nurhadi and friend (2003:109) problem-based teaching (Problem Based Learning) is a teaching approach that uses real-world problems as a context for students to learn about critical thinking and problem-solving skills, and to acquire knowledge and concepts and essentials of instructional materials. According to observations made by the observer during the

learning process takes place are students learn about critical thinking and problem-solving skills, as well as to acquire knowledge and concepts.

The learning outcome is an achievement of the learning process that has been implemented by doing tests given by the teacher. Learning outcomes also depend on the individual concerned. Conditions in which a student maximizes the learning process, then the results of learning will also be good. And vice versa, when a student is less enthusiastic about competing with his friend to be the best then the results of learning were also less good. Here needed supervision from researchers and parents will the results of learning obtained by students.

According to Beyamin Bloom in Nana Sudjana (2006) explained that the results of learning are accomplished by students can be grouped into three aspects, namely: the realm of cognitive, affective, and psychomotor. The realm of cognitive coincide with the results of intellectual learning consisting of six aspects, namely: knowledge or memory, comprehension, application, analysis, synthesis, and evaluation. The realm of affective coincide with attitude consisting of five aspects, namely: acceptance, answer or reaction, rating, organization, or internalizing. The realm of psychomotor coincides with the results of learning skills and the ability to act. There are six aspects of the realm of psychomotor, namely : (a) reflex movement (b) skill basic movement (c) the ability of perceptual (d) the harmony or the precision (e) movement skill in complex and (f) expressive movement.

In this research the results of cognitive learning used as a reference which indicates how much the level of student understanding and mastery of material where students have the cognitive ability in the knowledge or memory, comprehension, application, analysis, synthetic, and evaluation when problem-based learning takes place. Student learning outcomes are seen from the acquisition of score post-test conducted at the end of the learning cycle. Based on data analysis of student learning outcomes that have been done by researchers, both in cycle I and cycle II, the application of problem-based learning can improve student learning outcomes if compared with the learning model of the previous.

1. Cognitive aspect

The results of the learning cognitive aspect are the level of knowledge or memory, comprehension, application, analysis, synthesis, and evaluation. The results of the learning cognitive aspect measured the value of the post-test students at every last cycle. The results of the post-test at every last cycle made evenly and seen several students which is complete and uncomplete. Then made a comparison of each cycle to know the improvement of student learning outcomes on the cognitive aspect.

In cycle I the results of calculation of the average of the class for the learning results of the cognitive aspect to know the student's early ability, researchers conducted a pre-test and no student score achieved SKM and fall into the category of average enough grade. This is because the first time they get treated like doing pre-test and also there is no preparation them at home to learn about the material to be tested on the day, after being given the application of learning the average value of the class for learning outcomes cognitive aspect post-test of 34 students could increase.

This shows an increase of pre-test where no students have reached SKM and categorized complete, when doing post-test there are 15 students complete. The increasing percentage of students completeness is due to after doing the pre-test, they get treatment using the application of problem-based learning so that the percentage of learning cycle I can increase.

In cycle II in the cognitive aspect shows the increase in student learning outcomes into the category very good because the student learning activity in the classroom that continues to increase towards the better, such as increasing student concentration, increased curiosity student initiative to keep class calm comfortable to learn, student activity in asking, responding to answer, adding answer, giving additional ideas, recording material that is not listed in the material sheet, actively participate in and contribute to group work activities and present their group work.

These cognitive domain learning outcomes are also related to problem-based learning where according to Rusmono in (2012: 82): Problem-based learning has special characteristics about students who will learn with the PBL model is:

- (1) Present and active in all meetings
- (2) Know the PBL process
- (3) Committed to student-centered learning or student-directed learning
- (4) Actively participate in the discussion and critical thinking while contributing to a friendly and non-intimidating environment,
- (5) Has the ability to conduct constructive evaluations of self, group, and tutors

Student's response on economic subjects to the application of problem-based learning in class X IIS 3 SMA Negeri 1 Garum implemented in two learning cycles is generally good. This increase is due to the many students who argue that economic learning with this model is fun and able to bring the class atmosphere up. Students agree if learning with a Problem-Based Learning model can make students more daring to argue, asks, questions, make an opinion, and criticize the material.

CONCLUSION

Based on the formulation of the problem of data analysis results and discussion can be concluded as follows:

1. After implementing the PBL learning model students 'critical thinking ability improved. It can be seen from the increase in the percentage of students' critical thinking ability from cycle 1 to cycle 2.
2. The application of problem-based learning affects the improvement of student learning outcomes as seen from the increase in student learning outcomes of cognitive aspects from one cycle to two that continues to increase.

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