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The Implementation of Problem Based Learning to Increase Activity and Learning Outcomes of Economics Subject in Senior High School Students

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Abstract

Education with the learning model Problem Based Learning has an important role to improve the ability of active thinking and learning outcomes so that it gets good achievements because in this economic subject one of the subjects that requires deeper understanding because in learning it requires carefulness, accuracy, and sensitivity in analyzing conditions that occur in the surrounding environment. The method in this research is classroom action research which in its research requires quantitative and qualitative data which is carried out in two cycles including 4 stages, namely planning, implementing, observing and reflecting. From the results of the implementation of the research phase, it was found that the results showed that the activeness and learning outcomes experienced an increase in criteria very well in the second cycle, the results of which could be seen in the effectiveness assessment sheet and learning outcomes.

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INTRODUCTION

Education plays an important role in the process of country's development. The quality of society within a country depends on the quality of education. It is undeniable that if a country's education system is good, they have an outstanding society. To achieve good quality of education, a great number of elements take a role (Raharjo, 2012). In the context of learning process, teacher contributes as a determinant of good quality of education. Teachers are expected to have adequate knowledge and ability about pedagogy and satisfy a standard of quality as a professional party in performing teaching process (Fadhli, 2017).

In the context of developing countries, particularly in Indonesia, education remains becoming a serious aspect to be paid attention. The quality of education in Indonesia is still far from the expected objective (Sudarsana, 2016; Raharjo, 2012). Even in a big city, some schools provide unsatisfactory education quality. It further triggers the researchers to examine the existing issues. Based on the results of initial observation, it was found that the primary reason of unsatisfactory quality of education is the learning method used by teachers. Consequently, it influences student's attention during learning process. When teachers used monotonous and unattractive learning methods, students were not engaged in learning actively. Monotonous learning methods employed by teachers somehow inhibit student's understanding, particularly in a subject that requires complex explanation (Saifulloh, Muhibbin, & Hermanto, 2012). Consequently, students' understanding of a lesson topic will be incomplete. Even worse, students' acquire no understanding during the learning process since they are not engaging in learning activities due to a boredom. By the same token, students are not willing to ask questions during learning process when they do not understand the topic taught by teacher since they have no idea what to ask and what to discuss. If this circumstance continues for a long time, indeed, the education quality will not be advanced and improved.

Additionally, based on the observation conducted to one senior high school in Malang, students' learning outcomes about Economics subject remain poor and they have not achieved the minimum standard imposed. After conducting in-depth observation to discover the reason, it was revealed that the poor students' learning outcomes were due to a lack of learning method used by teacher during learning process. It was further found that teacher only used a conventional teacher-based method and focused on the explanation from the school textbook. Indeed, this approach of learning is counterproductive to the development of students' understanding. Accordingly, the researchers were intrigued to develop a learning method that contributes to students' understanding in the classroom. In this research, the researchers consider a problem-based learning approach as one solution to the existing problem above.

Problem-based learning approach requires students to actively participate and involve in learning process. Gunantara, Suarjana, and Riastini (2014) explained that within problem-based learning approach, the learning is focused on students as main subject of learning and teacher only plays a role as a facilitator to direct students when they encounter any difficulties. Furthermore, problem-based learning approach promotes a collaborative measure between students and teacher in the learning process (Fitriyani, Jalmo, & Yolida, 2019; Nurhayati, Yulianti, & Mindyarto, 2019) When teacher only plays a role as a facilitator, it does not mean

that teacher has less contribution towards students' learning process. Conversely, it allows students to be independent to construct their own knowledge through a problem given by the teacher during learning process. Therefore, based on the aforementioned explanations, this paper aims at examining the application of problem-based learning approach to improve students' participation and learning outcomes of Economics subjects.

METHOD

This research employed a Classroom Action Research procedure or commonly refers as CAR. Within Classroom Action Research procedure, the research could require both quantitative and qualitative data. This Classroom Action Research was conducted at MAN 1 Malang. The subject of this research was eleventh grade students of Social Studies class. It involved a number of 23 students as research subjects. The data collection was conducted by using direct observation in the learning process. The instrument of this research was observation sheet (learning implementation observation sheet and student's activity sheet) and learning outcomes test. The data related to students' learning outcomes were processed by using descriptive statistics and then were compared between the score of pretest and posttest.

RESULTS AND DISCUSSION

Before the research was carried out, the researchers conducted an initial observation during the Field Study and Practices of teaching or teaching internship. It was carried out between 29 July 2019 and 09 September 2019. Then, the researchers conducted additional observations for two weeks in October to reassert the existing problems in learning process. In addition to conducting observations, the researchers also conducted interviews with teachers of Economics subjects about the conditions of learning in XI IPS 3 MAN 1 Malang.

The results of observations and interviews with Economics subject teachers and students revealed that the learning process of Economics subject in MAN 1 Malang was still dominated by conventional learning models which focused on traditional lecturing. Consequently, students' active involvement and enthusiasm in learning Economics subject were lacking due to the monotonous learning process. Students tended to have their own activities during learning process and did not participate and paid attention to teacher's explanations.

In November to December, the researchers conducted consultations with Economics teachers to check the suitability of the lesson plan with the syllabus that would be used later on. Then, the researchers conducted two cycles of validity checking for two weeks. It was revealed that the validity did not reach the desired objective. Then, the researchers revised the questions to be used for validity checking and finally it revealed that the validity was accepted.

In the initial findings of the study, it was found that based on observations made previously and interviews with economics teachers, the problems discovered are as follows:

- a. During Economics learning activities in class XI Social Studies 3, the learning that has been done was still lacking in encouraging students' active

involvement. Therefore, students tended to be bored, less eager to participate to learning process.

- b. During the group discussion, students also tended to be passive did not actively participate in expressing their opinions. The discussion was dominated only by a small amount of students, particularly those who frequently participated. The rest of the students was passively involved.
- c. When the teacher intended to assign each student to make a group for group work, most students were finical and they did not want to blend with anyone or be in a group with students they did not prefer to.
- d. There were still many students who were passive in the learning process thus other students also became passive and inhibited a conducive learning process in the classroom.

Accordingly, based on the results of initial observation by the researchers and after discovering the major reason of poor quality in learning process, the researchers decided to take a measure to improve students' learning process by applying problem-based learning approach among students of XI Social Studies at MAN 1 Malang. This Classroom Action Research was conducted in two cycles to discover the application of problem-based learning approach to improve students' participation and learning outcomes. The results obtained from the two cycles are presented in the following Table 1.

Table 1. The Results of Cycle I and II of Problem-Based Learning

Cycle	PBL	Participation	Cognitive	Affective	Psychomotor	AVG
I	91.67%	73.55%	95.65%	92.99%	81.52%	90.05%
II	92.36%	88.19%	100%	98.79%	93.16%	97.32%

Based on the results of Cycle I and II presented in Table 1 above, it can be seen that the implementation of problem-based learning from Cycle I to Cycle II increased from 91.67 percent to 92.36 percent. The increase obtained is categorized as very good. In addition, students' participation was also increased from Cycle I to Cycle II (from 73.55 percent to 88.19 percent). The improvement of students' participation is classified as very good. Furthermore, the application of problem-based learning successfully improved students' learning outcomes which were divided into three main categories, specifically, cognitive, affective, and psychomotor.

According to Table 1 above, a cognitive learning outcomes of students increased from 95.65 percent in Cycle I to 100 percent in Cycle II. An affective learning outcomes of students also increased from 92.99 percent in Cycle I to 98.79 percent in Cycle II. Last but not least, a psychomotor learning outcomes of students increased from 81.52 percent in Cycle I to 93.16 percent in Cycle II. The average percentage obtained in Cycle I was 90.05 percent and the average percentage obtained in Cycle II was 97.32 percent. The overall percentage obtained from Cycle I to Cycle II confirms that the application of problem-based learning is able to improve students' participation and learning outcomes.

Based on the results obtained during the implementation of problem-based learning approach, the Cyle I of the learning implementation was categorized into

very good. Furthermore, the implementation of the problem-based learning approach in the Cycle II was also categorized into very good classification.

Based on the implementation of Cycle I problem-based learning in the classroom, although the results were similarly categorized into very good classification, the researchers discovered that there were number of obstacles. Primarily, during the Cycle I problem-based learning, students were relatively difficult to adjust since they were habituated to learn with conventional learning method. However, it was not a significant and did not disturb the learning process. During the implementation of Cycle II problem-based learning, the students began to adapt to the process. The adjustment made by students was indicated by the increase percentage of the implementation presented in Table 1. During the Cycle II, students were familiarized with the process of problem-based learning and understood how did the learning method work. It also confirmed by the percentage obtained in the aspect of participation. During the implementation of problem-based learning, students were actively engaged with the learning process. This is in line with the research results of Wiznia et al. (2012); Wan Husin et al. (2016), and Kim (2017) which report that the problem-based learning allows students to be actively involved in the learning process. Furthermore, Kim (2017) confirms that during the implementation of problem-based learning, students have a positive attitude towards the learning process and they are encouraged to express their thoughts. It is different from the conventional method which does not promote a sufficient room for students to express their thought and be actively engaged in learning process since the students only focus on teacher's explanation. Students' participation plays an important element within learning process. Students' participation further reflects the performance of students in learning process and it also signifies that students are not bored during the activities as stated by Carrasco et al. (2018).

In addition to participation aspect, the implementation of problem-based learning also improved students' learning outcomes. Based on the initial observation conducted by the researchers, it was discovered that one major issue during the learning process in classroom was the outcomes. During the conventional learning process, students relatively obtained low learning outcomes. This is due to the acquisition of knowledge which was not effective and optimal. According to Singh and Bashir (2018), conventional learning does not promote better opportunities for students to acquire knowledge since they are focused to the teacher's explanation based on the textbook. When students only read the learning topic from the textbook and/ or listening to the teacher and it is continually conducted, at the end of the day students will be bored and the acquisition of knowledge will not be effective. In this study, the researchers examined three aspects of learning outcomes, specifically cognitive, affective and, psychomotor. Based on the results of the implementation of problem-based learning, students' learning outcomes increased. It confirms that during the implementation of Problem-based learning, students were able to acquire knowledge. This result is in line with the statement of Singh and Bashir (2018); Carrasco et al. (2018); Kim (2017); Wan Husin et al. (2016) which affirm that after implementing problem-based learning, students' learning outcomes increased significantly. This is presumably due to the activities within problem-based learning which promote students to acquire knowledge. Through the problem given by teacher to students,

students are encouraged to find and discover the answer independently. The syntax of problem-based learning that promotes students' independent learning through problem allows students to be able to think critically and creatively as stated by Suarniati et al. (2019). The research by Suarniati et al. (2019) also reveal that problem-based learning offers students a real-life context problem to be solved. Thus, it can improve students' cognitive learning outcomes. When students dealing with problem in the learning, students will be encouraged to find an answer. In comparison, when students only learn by listening to teacher's explanation and reading a textbook, students' thinking will not be activated. Thus, they only memorize the lesson topics and it will not long last in the student's brain.

CONCLUSION

Based on the initial observation conducted by the researchers, students of XI Social Studies 3 MAN 1 Malang required an alternative learning process to improve their performance as well as participation in classroom activities since conventional learning did not accommodate the two major and important aspects of learning. To improve participation and performance, which later improving learning outcomes, problem-based learning was implemented two cycle to the students. Based on the results of the implementation of problem-based learning in classroom, it obtained that the learning implementation percentage was increased. In Cycle I, the percentage of the implementation was not high as in Cycle II since the students were not completely adjusted to the learning. However, when Cycle II took place, the implementation increased. It confirms that students have adjusted to the learning process. In addition, the implementation of problem-based learning has improved students' participation. The percentage obtained during Cycle I and Cycle II increased. It signifies that in Cycle II, students were engaged well in the learning activities. The percentage obtained categorized into very good classification. It means that problem-based learning is effective to improve students' participation.

Furthermore, the implementation of problem-based learning has successfully improved students' learning outcomes of Economics subject. This research examined three aspects of learning outcomes specifically cognitive, affective and psychomotor. The three aspects of learning outcomes increased during the implementation of Cycle I and Cycle II of problem-based learning. According to the results obtained from the implementation, students' learning outcomes increased significantly. It signifies that students were able to construct and acquire knowledge through the implementation of problem-based learning. Thus, problem-based learning has successfully improved students' learning outcomes optimally.

This research suggests that the teachers in Senior High School to implement diverse learning methods, one of them is problem-based learning considering that conventional teaching is no longer effective to increase participation and performance of students. Furthermore, for the future researchers, it is recommended that they can conduct an extensive research about problem-based learning in different educational level. In addition, the future researchers could observe problem-based learning by comparing to other available learning methods and including more variables to provide comprehensive research results.

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