



THE IMPLEMENTATION OF COOPERATIVE STUDY GROUP MODEL IN PROBLEM BASED LEARNING

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Abstract : The General problem of this research: “How does the cooperative study group model in problem-based learning improve students’ economics learning outcomes?” Specifically, the research questions are: (1) Is a cooperative study group model in problem-based learning more effective compared to conventional study group model to improve the economy learning outcomes? (2) What are the perceptions of economics teacher regarding the strengths and weaknesses of a cooperative study group model in problem-based learning? (3) What are the experiences obtained by students through cooperative study group model in problem-based learning? This research was using experimental method through Quasi-Experimental as the research design. The research was located in State High School 2 of Sungai Kakap of Kubu Raya Regency. The research subjects were an economics teacher and the XII class students of Social Science. The number of each experimental and controlled group has amounted to 38 people. The technique and instrument of data collecting are measurement technique through the use of instruments which include test item, direct observation technique with observation guideline, and documentary study technique with note sheet. The data were analyzed through SPSS Program by calculating the t-test and Effect Size. The acquired conclusions are: (1) The implementation of cooperative study group model in problem-based learning is effective in improving the economics learning outcomes of State High School 2 of Sungai Kakap of Kubu Raya Regency which included in a high category. (2) The perception of teacher indicates that cooperative study group model has strengths in which the learning process in cooperative study group model emerges the occurrence of interactive, inspiring, pleasuring, and challenging processes as well as motivating the students to actively participate and providing enough room for the initiative act, creativity, and independence of students. The weakness is that sometimes the discussion between students is escalating which generates relatively longer learning process. (3) The experiences of students after performing the learning process through this model indicate that they able to conduct better attitudes, such as being tolerant towards the members, dare to express their arguments, improving their learning motivation and critical thinking. The poor experience of students who study with this model is that the discussions tend to get escalated and require plenty of time. Associated with good experiences acquired by students, thus, the recommendations are (1) Cooperative study group model in problem-based learning should be made as an alternative learning model. (2) In order to create a more effective learning process, thus, the learning program should be designed in accordance with the phases and made as functional.

Keywords : cooperative study group model in problem-based learning, learning outcomes.



I. INTRODUCTION

Learning outcomes are the absorbing ability of students which until present still become the basis to place them into a higher class and graduate them into a certain level of education. Therefore, the learning standard presented in learning outcomes needs to be improved, because we have to be ready to face new challenges in globalization era. The industrialization process which getting rapid in the globalization era will trigger citizen of Indonesia towards more complex citizen. In the condition of growing community, managerial orientation towards human values is required. The importance of this orientation is to ensure that not only technological and economical aspects that become the concern in various circumstances, human aspect can be proportionally aligned with the aspects of technology and economy. According to Wijaya (2015:7), "On the relation to social-cultural aspect, what needs to be underlined is the orientation towards cultural values, the way of thinking (reasoning), the attitude in facing social-natural environments as well as the behavior". This condition demands the importance of the implementation of problem-based learning method. Seng, Ong, Tan (2004) express that problem-based learning method facilitates the students in learning academic contents and the skills to solve problems by involving students in a condition of real-life problems. The problems made as learning focus can be solved by students through study group, therefore, they could provide varied learning experiences on students. If a learning process is began with a problem, moreover, if that problem is contextual, thus, cognitive imbalance might occurs on students. This condition is able to induce curiosity of students, thus, it generates intrinsic motivation on students.

Rusman (2011:1) expresses that "learning is a system which consists of interconnect components. Those components include purposes, materials, methods, and evaluations". Those four components need to be put into consideration by teachers in selecting and determining the learning models which will be applied in learning activities to achieve the purposes of each learning process. Discussing in further, Sagala (2012:61) mentions that "providing students with a learning which based on educational principle or learning theory is the main determinant of the success of educators". According to Krisanti, Elsa, Mulia, and Kamarza (2005:21), problem-based learning method is a learning method which implemented by connecting the curiosity with the skills and initiative of students into subject materials. Learning is aimed to prepare the student to think critically and analytically as well as discovering and utilizing proper learning sources. In this research, problem-based learning is implemented through study group for economics subject by assigning students to become active in solving an economic problem through problem solving procedures.

General problem of this research is "How does cooperative study group model in problem-based learning improve students' economics learning outcomes?". Specifically, the research questions are: (1) Is cooperative study group model in problem-based learning more effective compared to conventional study group model to improve the economy learning outcomes? (2) What are the perceptions of economics teacher regarding the strengths and weaknesses of cooperative study group model in problem-based learning? (3) What are the experiences obtained by students through cooperative study group model in problem-based learning? The



implementation of this research is based on the following basic assumptions: (1) The learning situation which allows optimal learning activities is highly determined by the capability of teachers in implementing a learning method to create learning situation, thus, students will be able to intensively interact with teachers in accordance with the agenda programmed by teachers. (2) Learning method is the way which will be taken by teachers and students in achieving instructional purposes for a certain instructional unit. The aim of this research is to perform analysis and discussion of the effectiveness of cooperative study group model in problem-based learning to improve the economics learning outcomes of students which associated with the perception of teacher and experience of students after conducting the learning process. The urgencies/significances of this research are (a) For Students. Learning through the implementation of problem-based learning is an innovative learning for students which able to generate active learning condition. Problem-based learning involves students to solve a problem through the phases of scientific method, thus, the students are able to learn the knowledge related to the problem and acquire skills to solve the economics problems. (b) For Teachers. Improving the professionalism of teachers in performing a learning process through problem-based learning model. (c) For Government. To support the program to improve the quality of human resources, particularly for economics teachers and high school students.

II. RESEARCH METHOD

This research is using an experimental method, the design is Quasi-Experimental Design. This research is conducted at State High School 2 of Sungai Kakap of Kubu Raya Regency in odd semester of 2018/2019. The research subject is taken in random manner, namely an economic teacher and XII class students of Social Science-2 (experimental class) as well as XII class students of Social Science-1 (control class). Each experimental group and control group has 38 students. The technique and instrument of data collecting are measurement technique through the use of instruments which include test item, direct observation technique with observation guideline, and documentary study technique with note sheet. The research procedures include (1) before the test items are tested towards the research subject, the validity test, difficulty test, differential test, and reliability test are performed towards students in XII Class of Social Science-3. (2) The conducted steps in data processing are data transformation, data classification, data distribution, data analysis techniques which include data normality test, variance homogeneity test between groups, linearity test, and research hypothesis test. Data analysis technique is performed with SPSS program which measures t-test and Effect Size.

III. RESULTS AND DISCUSSIONS OF RESEARCH

Data processing results to test the hypothesis are presented as follows.

Independent Samples Test

	Levene's Test For Equality of Variances	t-test for Equality of Means
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	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal Variances Assumed	.551	.460	3.986	74	.000	7.632	1.915	3.817	11.446
Assumed Equal Variances			3.986	73.980		7.632	1.915		11.446
Not assumed					.000			3.817	

Source: Processed Data of SPSSv.18 (2018)

Some research results will be discussed as follows. (1) According to the data of t-test, it has been discovered that t count value is 3.986, and t table value is 1.992. In that order, $t \text{ count} > t \text{ table}$ ($3.986 > 1.992$), it can be revealed that cooperative study group model in problem-based learning is more effective compared to conventional study group model to enhance economics learning outcomes. In order to discover how significant the effect of cooperative study group model in problem-based learning towards learning outcomes, thus, data analysis is performed by applying Effect Size formulation (Hadi, Sutrisno, 2012). Based on the calculation, 0,84 Effect Size value is acquired. Therefore, the implementation of cooperative study group model in problem-based learning is categorized as highly effective in improving the learning outcomes of the students of State High School 2 Sungai Kakap of Kubu Raya Regency. This finding is parallel with the results of studies that observe the effect of cooperative study group model which being correlated with the acquisition of knowledge by students which performed by Edwards & De Vries (1972), Johnson & Woxman (1985), Van Oudenhoven (1987), this entire studies indicate that students with various academic level have gained benefits from the implementation of cooperative study group model. It can be said as well that students who study under this model are actually have better acquisition of knowledge compared to the students who learn under traditional method (Edwards & Talbot, 1994). Problem-based learning is derived from a theory in which learning is the process where learners are actively constructing knowledge (Wee, Neo Kong, Lynda, 2004). Discussing in further, in relation to the problem-based learning, Yin, Hee Soo (2005) expresses that modern cognitive psychology has stated that learning is emerging from the action of students, and teachers are only contributing or having role in facilitating the occurrence of knowledge construction activities performed by students. Teachers have to focus their attentions to support students in achieving the skill of self-directed learning. Problem-based learning is one of the innovative learning models which able to provide active learning condition on students (Seng, Ong, Tan, 2004). Problem-based learning is one of the learning method which involves students in solving a problem through scientific method, thus, the students will be able to learn the knowledge correlated to the problem as well as conceiving problem solving skill. (2) According to the perception of the teacher, the strengths of cooperative study group model in problem-based



learning are training students in solving a problem in a democratic group, having positive natures in developing the concepts which have practical values for the life of community, namely curiosity, solidarity, being critical, independent, emotional intelligence, communicating skill and accuracy in taking decision, in that order, the learning process of social science especially economics subject will be able to integrate humanity and religious values in analyzing a specific social issue/problem. The weaknesses of this model is the tendency in which the discussion can get escalated, requiring relatively long time, and requiring relatively large costs especially for the provision of learning sources. In the correlation with the strengths/advantages of cooperative study group model in problem-based learning, the research findings during two years in Elementary School has indicated that cooperative study group model is proven of generating positive and significant impact on the skills and attitude of students in reading, in Bahasa and mathematics subjects as well as on the social interaction of students in class (Stevens & Slaving, 1995:321-351). This statement is consistent with the argument of Slavin (1992) and Stahl (1994) which mention that cooperative study group model is really capable of achieving the entire contents of academics, social, and affective purposes. Discussing in further, according to Amir, M. Taufiq (2009:12), problem-based learning method is “a method which frequently adopted to support the learner-centered learning approach and to empower the students”. . Trianto (2007:74) expresses that “the proper way of presenting problems for a learning material in problem-based learning is by using events that emerge mystery and evoke the curiosity of students”. This effort is aimed to encourage the intention and will of students to solve the faced problems. (3) Good experiences acquired by students after learning through cooperative study group model in problem-based learning are (a) providing various experiences in group to obtain the opportunity to speak, initiate, vote, and observe the emotion which able to develop good habit in general, (b) improving the learning motivation, (c) improving critical thinking skills, (d) learning in pleasuring atmosphere, (e) improving the desired to find the discussed material independently. The poor experiences are for example like distorted discussion and a quite noisy situation during the group study. Edwards & Talbot (1994) reveal that the research regarding the implementation of cooperative study group indicates positive outcomes on (a) successful academic achievement, (b) self rewards and confidence of students, and (c) social reception of students on their environments.

IV. CONCLUSION AND RECOMMENDATION

The research conclusions are (1) Cooperative study group model in problem-based learning is more effective compared to the conventional study group model in improving economics learning outcomes. (2) According to the teacher perception, the strengths of cooperative study group model in problem-based learning are training students in solving a problem in a democratic group, having positive natures in developing the concepts which have practical values for the life of community, namely curiosity, solidarity, being critical, independent, emotional intelligence, communicating skill and accuracy in taking decision, in that order, the learning process of social science especially economics subject will be able to integrate humanity and religious values in analyzing a specific social issue/problem. The weaknesses of this model are the tendency that the



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