

The Implementation of Problem Posing Model Assisted by Smart Card to Improve Students' Questioning Skills on Social Studies for the Fourth Grade Students

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Abstract: *This study aims to analyse the skill enhancement for delivering the question for the fourth grade students of Social Studies at SDN Tunjungsekar 5 Malang through the implementation of posing problem assisted by smart card learning model. This study is a classroom action research (CAR) that consists of two cycles. Each cycle consists of four stages. They are: planning, implementation, observation, and reflection. Subjects of this study are the fourth grade students in academic year of 2015/2016 that consists of 20 students. Data on students' questioning skills for social studies were collected through observation and interviews. The results of this study indicate that the implementation of posing problem assisted by smart card learning model can improve the students' skills on social studies on sub aspect of the basic ability to ask, the ability to ask from low, medium, and high levels. In the first cycle, the students' questioning skill obtained 63% and has increased significantly in the second cycle of 84%. Based on these results, we can conclude that the posing problem assisted by smart card learning model is not only able to prepare questions on any given level (low-level thinking skills), but students can arrange questions for evaluating and creating (high-level thinking skills) level.*

Keywords: *Problem Posing Assisted by Smart Card, Questioning Skill, Social Studies*

I. Introduction

Stepping on the growing information era bears the demand for each individual to have life skills. Education is one of the factors to acquire skills in life to achieve a civilization for the nation. The national education serves to develop the skills to form the character of dignity in the context of the intellectual life of the nation.

In curriculum 2013, acquisition of skills is gained through students' knowledge in social studies. The role of social studies in an integrated thematic learning is considered important as a means of knowledge for students in acquiring the social skills in society. Skills that are formulated in social studies subjects in the curriculum in 2013 is to think logically and critically, reading, learning (learning skills, inquiry), solve problems, communicate, and collaborate in the life in the society (Regulation of the Minister of Education and Culture No. 57 Article 10 years 2014). The description, it can be concluded that social studies education requires a learning pattern that is capable of bridging students in understanding a concept, events, and facts through the learning experience of students who formulated the scientific approach is one that is asked of activities.

Asking in learning is seen as a digging information activity to develop students' thinking skills that are almost always found in learning. Asking question cannot be separated and becomes a significant part in the form of discussion, group work, when students encounter obstacles to learning, observing, and so forth. Lewis (2007) stated that students will ask questions when they are faced with the problem that is confusing or unclear so that the student will attempt to find information to get the accurate data. Therefore, the student activities are an important part in implementing the learning-based inquiry, which gather information, confirm what is already known, and to bring attention to the aspect of the unknown. In a scientific approach activity emphasis in asking questions to arise from the students. The competencies developed in activity asking questions, the scientific approach such as: (1) develop creativity, (2) curiosity, (3) the ability to formulate questions to form the critical thinking necessary for intelligent life and lifelong learning (Widyastono, 2014).

Competence that is contained in the activities of asking questions is a tool to acquire in-depth information about the subject matter, especially in social studies in primary school, so that the goal of social studies can be accommodated well. Activity ask questions encourage students to ask questions of the factual to the hypothetical, beginning with the guidance of teachers to be independent (being an alkalinity) to seek information and / or meaning of something through the process of asking the dialectical (dialectical questioning) by asking a number of questions tracker (probing question), for example asking the question: What, Where, Who, When, Why, How, How much, and so on (Regulation of the Minister of Education and Culture, The Republic of Indonesia, No. 57 of 2014).

The effectiveness of students' question can be attributed by cognitive aspects such as the students' skills in diagnosing trouble and scrutinize information. The students' critical thinking skills related to ask, such as: (1) put forward questions and important issues, formulate it clearly and accurately; (2) bring new ideas or can improvise ideas (Jacobsen et al., 2009). Efforts to form the critical thinking of students as the competence of students having mastered the skills to ask can be measured through Bloom's Taxonomy. Munandar (2012) states that the activities of asking questions can be developed and evaluated based on degree of difficulty with reference to Bloom's Taxonomy. Use of the classification of the types of questions associated with Taxonomy Bloom. The types are low-level questions (remember & understanding), the question of medium level (applying and analysing), and high-level questions (evaluating and creating) (Arends, 2008).

The achievement of social studies skills to ask cannot be separated from the teachers' strategies in teaching in the classroom on the implementation of learning models to encourage and motivate students to ask. UNESCO (2012) stated that by implementing varied learning, teachers give assistance to students to use and develop the learning process. A meaningful learning provides opportunities to the students to develop their skill and efforts to learn and to think. but, learning model applied by conventional teacher emphasizes learning that is much influenced by the lectures, making it less able to stimulate students to be actively involved in the learning process, this is confirmed by the results of a study conducted by Bourke (2004) states that learning in Southeast Asia they rarely use the lessons oriented to students (student centred).

Referring to the preliminary observations in SDN Tunjungsekar 5 Malang, it can be described that the activity of asking questions cannot be fully implemented in the classroom. Activity was dominated by the teacher asking questions so that the information appearing in the learning is meaningful only on a particular student. Weak urge teachers to stimulate questions from the students become a major factor in the weakness of students' questioning skills. The skill asked students from pre-action conducted observations obtained yield was 54%. Based on these results, it is clearly indicated that students might be easier to ask questions on sub aspects of basic capabilities and the ability to ask on low level question. That is, most students' levels of thinking in making the question is still recall and understand the material.

Based on observations above, it can be concluded that the implementation of the learning process showed that the ability of students questioning skills, especially in social studies is still poor. Accordingly, it needed an effective learning model for motivating students to improve their skill. Efforts in addressing issues relating to the questioning skills of students in social studies is done by applying a problem posing model.

Problem posing can be interpreted as a learning model that emphasizes students to be able to compile or create their own problems through the situation given by the teacher in the context of social studies as well as constructing knowledge and exchanging information to others, so that students are expected to student learning can be meaningful. Demir (2005) stated that the implementation of problem posing allows students to conclude through their own language, vocabulary, grammar, sentence structure, context, and syntax based on the given situation. Therefore, the students' ability in asking questions or problems to solve problems increase. Through the posing model, students get two skills such as exploring problem and solving it.

In the learning implementation of problem posing model, researchers use smart media card. This learning implementation modifies the smart card using keywords that are able to trigger new ideas in the learning process. Jay (2008) states that technologies collaboration in learning give a framework for students to understand, analyse, evaluate, and create language with their friend. Thus, it can facilitate their language development. The use of smart card aims to facilitate students to associate concepts and materials, so that students can construct creative ideas.

Based on the identification of the above problems, the researchers conducted a study entitled "The Implementation of Problem Posing Model Assisted by Smart Card to Improve Students' Questioning Skills on Social Studies".

II. Method

This study is a classroom action research. Classroom Action Research (CAR) is a study conducted by a teacher or a particular person in the classroom with the aim to improve the performance of teachers in the teaching and learning process. The procedures in this study use a model developed by Kemmis, et al. (2014) that includes planning, implementation, observation, and reflection. This study design can be described by the following model.

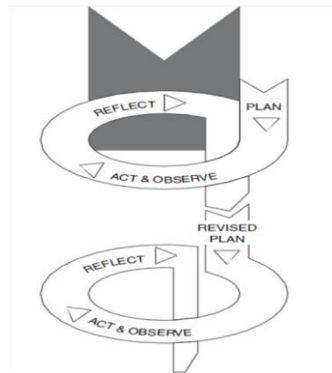


Figure 1. Design of Classroom Action Research Spiral Model by Kemmis et al. (2014)

For the planning phase, the researchers carried out; (a) develop Lesson Plan, (b) make smart card learning media; (c) make research instruments and determine the implementation of the observation.

The implementation of these measures was tailored to the lesson plan which has been prepared based on the problem posing learning model. It is started with the preliminary stage by the teacher, explaining the purpose of learning. Core activities used for problem posing model assisted by smart cards with the stages: (1) teachers convey the material to be learned; (2) the teacher divides the students into groups of 4 students; (3) each member of the group holding the smart card; (4) the students put questions to choose keywords that exist on the smart card; (5) students ask questions to the group of their friends to take turns in a clockwise direction; (6) the students leave a response or reply their friends. Next, the closing is done by drawing conclusions and evaluation activities.

The observations in this study are carried out during the implementation of problem posing learning using observation sheet. Observation of the activity of the model covers five sub aspects that have been established such as: (1) the students understand the flow of the models; (2) students prepare questions via keywords on the smart card; (3) students take turns asking questions according to clockwise direction; (4) students provide answers or responses to answer a question. Next, observing social studies skills of the students includes four sub-aspects that have been established such as; (1) the ability of the basic question; (2) the ability to ask a lower level; (3) the ability to ask a moderate level; and (4) the ability to ask a high level question. Reflection on the learning process is conducted with observers at each end of the cycle. Reflection is based on the observation and evaluation of learning based on indicators of learning achievement. At this stage, researchers and observers discuss the results of observations and interviews, then evaluate all activities performed in the learning process. Criteria for success in improving skills is viewed from observation and interview. Subjects in this study is the fourth grade students at SDN Tunjungsekar 5 Malang in academic year of 2015/2016. The number of students is 20 students consisting of 11 girls and 9 boys with different academic abilities.

III. Findings

This CAR took place from January 20, 2016 until February 1, 2016 and conducted in two cycles involving 20 fourth grade students at SDN Tunjungsekar 5 Malang. Each cycle consists of 2 meetings. Based on observations and interviews, it showed that the average student success in the implementation of the model by 67%. Some student has been able to compile questions via smart cards although some other students have any errors in choosing one keyword. In addition, the activities provide answers or responses to questions; some students cannot concentrate in the discussion because they talking each other in the group. Meanwhile, the observations and interviews in the first cycle of students' social studies questioning skills showed that some student get score 63%. This means that students' skill in sub aspects of the ability to ask low-level has significant progress by most students. While in the sub viability asked medium and high levels are still dominated by students with academically above average only.

The results of the analysis of the success of the first cycle showed that the overall aspects studied have not yet reached the criteria of success of the action. The implementation of problem posing model reached 67% or below of success criteria of 75% and above. Meanwhile, the acquisition value for questioning skill is 63%, far below the success criteria of 75% and above. Referring to these findings, the researchers and observers agreed on the continuity of the action to the second cycle.

In the second cycle the researchers and observers coordinate to make some improvements, among others; (1) the teacher explain more detail the syntax of problem posing in front of the students so that they are not confused to do the game; (2) the formation of a group determined by the teacher based on students' academic

consideration; (3) the teacher reviews the students' questions with a more detailed explanation with example of questions on each sub aspect.

Based on data from observations and interviews the second cycle, it showed that the average student success in the implementation of the model is 90%. The results of observations and interviews show that almost all students already understand the flow of the game and questions prepared by themselves according to keywords on the smart card. Next, the majority of students have been able to provide answers or responses to questions submitted by them appropriately. While the results in the second cycle about the questioning skills showed that the average student success in asking questions is 84%. This shows that students are not only able to remember and understand the information, but they also have demonstrated the ability to think critically through the emergence of the evaluation questions and creating (the ability to ask a high level) to the most students.

Findings from the second cycle analysis above, it shows that the problem posing reached 90% or above of success criteria of $\geq 75\%$. Meanwhile, the acquisition value on the students' questioning skill is 84%. This means it has exceeded the success criteria. These results indicate that students are not only able to prepare questions on any given level (low-level capabilities), but students have been able to think more deeply and critically to formulate questions on levels creates (with high levels).

IV. Discussion

The problem posing learning model this study aims to analyze the description of increasing skills of the fourth grade students to ask. Improved skills to ask for social studies include this following aspect: (1) the ability of the basic question; (2) the ability to ask a lower level; (3) the ability to ask a moderate level; (the ability to ask a high level). The success of these students questioning skills is in line with Eggen & Khauchak (2012) argument. They were found by the questions or issues raised by the students. Students can enhance the activity and engagement in learning so that their learning achievement can be increased.

The students' basic ability to ask have increased significantly. This is shown by the majority of students have been able to ask questions at a good sentence structure. The composition of the student questions using standard vocabulary and conjunctions is suitable with proper placement. This fact is supported by the results of interviews to students. It revealed that student' abilities to prepare questions either influenced by the student's mastery of the basic vocabulary or supported by students' habit of using the Indonesian language in everyday conversation. Fulfilment of sub aspects of the basic ability supports the success of students' questioning skills. The ability to ask low level question through problem posing learning model is done through questions that require answers in accordance with the material they have learned. Interviews showed that students' mastery of the material by giving stimulation to devise questions as text or learning resources to learn more easily. These results indicate that the emergence of meaning of the teaching and learning process occur during the submission of the issue. Killen (2003) stated that the learning activity has been set to involve in the learning process.

The ability to ask a moderate level question through problem posing model require answers as an attempt to solve a problem. Keywords "how and why" that appears on every question indicate that the students need more information in detail.

In order to get in-depth information, the students will attempt to find the reason or the cause of the problems posed. Interviews showed that their expectations of students' buddy in earnest so that there is no difficulty in answering the question.

The ability to ask a high level question through problem posing model is showed by the emergence of questions about assessment to determine the opinions or views of the phenomenon posed by their friend. The emergence of evaluation by students to answer question from their friend is a positive sign of students' critical thinking. Interviews showed that students want to compare and exchange opinions with friends. Santrock (2011) explained that there are several ways for students to develop critical thinking such as: (a) the students make queries using keywords "how" and "why"; (b) the student has evidence or facts to support their arguments and ideas; (c) students to compare answers to questions that can assess where the best answer; and (d) evaluate or criticize the student answers or arguments.

V. Conclusion

The conclusion of this study is that the implementation of problem posing model can enhance the skills of the fourth graderson asking for social studies issues at SDN Tunjungsekar 5 Malang. It can be seen from observations and interviews. These results indicate that students are not only able to prepare questions on any given level (low-level capabilities), but students have been able to think more deeply and critically to formulate questions on levels creates (with high levels). Most students have mastered the flow of the gamewell so that they can prepare, file and answer the question correctly.

Based on the research findings, discussion and conclusions, it can be suggested that. (1) problem posing assisted by smart card learning model can be used by teachers as an alternative way to enhance the skills of asking other

subjects; (2) the implementation of problem posing model can be combined with other learning models that are attractive through the award; and (3) it is expected that there will be similar studies that not only focused on questioning skills, but also answering skill.

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