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The Effect Of Problem-Based Spot Capturingmodels On Creative And Care Characther Of Students In Elementary School

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ABSTRACT

This study aims to determine the impact of applying problem-based spot capturing modelsin teaching social science in order to develop creativity and caring of students in elementary school. The experimental research was carried out for four weeks by using problem-based spot capturing modelslearning in two groups is experimental group (n = 24) and control group (n = 23). This study used quasi experimental methodwith pre-test and post-test control group design. The research instrument was taken from observation and questionnaire then the data was analysed by using qualitative descriptive percentage. Based on the data, the researchers figure out that a teacher plays an important role in developing the character of the students through the learning design. In addition, there are differences in the higher score obtained by the experimental group than the control group on creative and care characters by using problem-based spot capturing models. Students also gain an improvement in technology use and skills in social science class by using the problem-based spot capturing models.

1. Introduction

Nowadays, there are many educators concern more about the character education program at school (Sanchez, 2005). The National Education Association policy has expressed the importance of building the learning achievements and character of each student (Benninga et al., 2006). he South African Curriculum and Assessment Policy Statement (CAPS) aims to produce students to be able to design and investigate, classify, hypothesize, infer, observe interpret, predict and make conclusions (Department of Basic Education, 2011, p.5). Teachers are to equip learners with knowledge, skills and values that help in meaningful participation irrespective of intellectual ability, race, gender, and socio economic background (Department of Basic Education, 2011, p.4). This could be achieved by encouraging students to engage in an active learning, rather than rote learning. Demonstrated the effect of integrating the collaborative teaching approach with problem-based learning (PBL) on improving the students' achievement, attention and behaviour (Chu, Chow et al., 2008). It can bring a good learning atmosphere for the students. PBL can improve analytical skills through evaluation and inferences of data (Zhou et al., 2013). Among these strategic teaching methods is the Problem based Learning (PBL) approach. This paper focuses on problem-based learning as a teaching strategy and how it can effectively be used to increase students' achievement in physical science. The research specifically assesses how PBL as a method of instruction can be effectively used in teaching chemistry in high schools (Aido, dkk 2016). Spot capturing based-problem models is oriented to the use of technology in the learning process is the use of digital technology to take pictures, photographs or video based on the visualization of a theme. It engages the students to do the learning activities inside and outside the classroom.

Widiasmadi, Nugroho (2010: p.56) states that the spot capturing method provides the widest possible motion for the students to optimally radiate the global brain stimulation. Problem-based spot capturing models can help construct students' knowledge through various learning experiences, which

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results in strengthening the process of building feelings, improving perceptions, forming imagination, strengthening philosophy, which influences the development of students' character. Problem-based spot capturing models has the potential to help students on how to learn, how to work together and apply what they learn to understand and solve real problems (Hmelo, Silver:2004). Critical awareness and student engagement are the focus of problem-solving skills that provides philosophical principles to support problem-based learning (Andrew Armitage:2013). Character is one's natural qualities in responding to situations which is represented by the behaviour(Lickona, Thomas:2012: p.196).

Constructing knowledge, learning inquiry, improving the skills of scientific thinking, critical thinking and character education are the achievement to be obtained by every teacher in constructing a learning process. Problem-based spot capturing models is a collaborative learning model developed from spot capturing methods and Problem-Based Learning (PBL), where students conduct investigations on authentic issues found in everyday life and they analyse those issues by using various sources of learning, media and technology (Zumbach et al.,2004).Problem-based spot capturing models integrates 6 learning steps (orientation, organizing, inquiry, presentation of results, evaluation and follow-up).

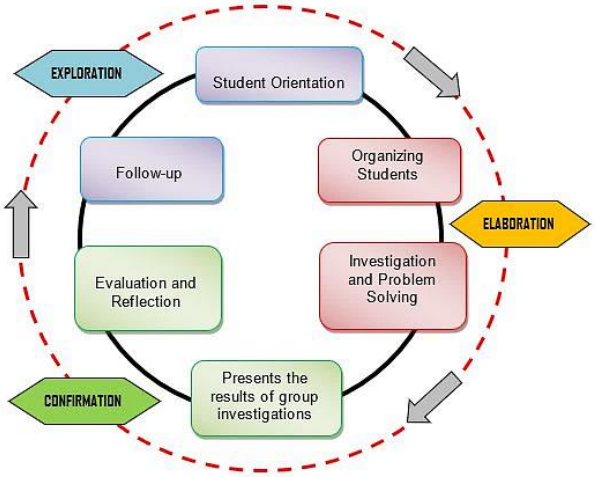

Figure 1. Scheme of Problem-Based Spot Capturing Models

Problem-based spot capturing models is expected to be an innovative learning model that can help construct students' knowledge through various learning experiences to generate reinforcement on the process of building feelings, strengthening perceptions, forming imagination, strengthening philosophy and meaning that influences the growth of character values of students in elementary school.

Social science is the simplification or adaptation of the common social sciences and humanities, as well as the basic human activities that are organized and presented scientifically and pedagogically for educational purposes (Walter, C. Parker, 2012: p.86). Providing social science at the school level aims to prepare learners as citizens who master knowledge, skills, attitudes and values (Mindes, 2014: p.66). Therefore, through social science, students can learn to understand social problem, they are able to obtain decision-making ability and they can participate in various community activities in order to become a good citizen.

Character building arises when teachers associate learning materials with the environment of the students (Megawangi, Ratna, 2004: p.49). Thus, active involvement in their learning will elicit embedded values through life experiences and a sense of empathy towards the environment. Students need an education that links them to communities outside the school. They can develop a character namely the habit of mind, heart, and action (Goh et al.,2009).Problem-based spot capturing models enables students to develop creativity and care effectively, starting from structured investigation activities as well as media and technology utilization so that students can facilitate their own learning styles.

2. Method

Thisresearch was conducted of student's elementary school in Jakarta using quasi experimental with "Pre-test and post-test control group design". There are two groups that are selected at random, and then given a pre-test to determine the initial state is there a difference between the experimental group and the control group (Cohen et al.,2005: p. 21). Students were given a pre-test before the treatment and

posttest after the treatment (Sukmadinata, 2005: p.44). The results of testing the effectiveness of creativity and care were analysed by using descriptive percentage.

The subjects were 47 fourth grade students of elementaryschool consisting of experimental group (n=24) and control group (n=23). Students are divided into groups containing 3-4 members.Researchers developed a sheet of character observation to assess the creativity and care character of students, which emerged during the lesson. Each observation sheet has four indicators that the observer must observe. Researchers also developed an evaluation test sheet of multiple choice questions and student worksheets to measure academic achievement.Research data collection techniques, researchers use several techniques and procedures tailored to the characteristics of data collected and respondents research. Data collection technique is done by way of literature study, observation, and questionnaire with guided by instrument which made and developed.

The researcher organized, coded, reviewed and analysed the observation sheets. The data were analysed by utilizing descriptive percentage. In addition, the researcher also obtained data of questionnaire result of student and teacher response done after trial finished. The data is analysed with descriptive percentage to get more information(Hake, 1999).

3. Result

The purpose of this research is to investigate the effect of problem-based spot capturing models in social science learning on the development of creative and care character of the students in elementary schools. The question of this research that's "Is there difference between the student's character scores in the experimental group taught by problem-based spot capturing models and the students in the control group who are only taught by the common method based on the curriculum?"

The score data of the student's character values in the experimental group and the controls obtained from the observation sheet were compared and analysed by using descriptive percentages.

Table 1. Results of Analysis of Student Character Development.

Group	Experimental(n=24)		Control(n=23)	
Character	Creative	Care	Creative	Care
Total Score	82	78	68	67
Average	3,42	3,25	2,95	2,91
Percentage%	85,41%	81,25%	73,91%	72,83%
Category	Very Good	Very Good	Good	Good

Based on the findings in Table 1, the percentage of the experimental group for creative character is 85.41% and the score of the control group 73.91%, showing the difference of percentage statistic of 11.5%. While the percentage score of experimental group for the character of care is 81,25% and the score of control group percentage 72.83%, showing difference of percentage statistic of 8.42%. Based on the results obtained on the analysis of percentage descriptive, it can be said that the use of problem-based spot capturing models in social science learning has an impact to improve the creative and care character of students in elementary school. This's evidenced by the results of a higher percentage analysis of character assessments in the experimental group compared with the control group.

This study also measured the practicality of using problem-based spot capturing models on social science learning in elementary school, the practical data obtained from the questionnaire given to students and teachersafter the learning is complete.Based on the questionnairethat the mean score of student's response score is 58,4 or 83,5%, so the student's response questionnaire is incategory "Practical". The questionnaire of teacher response after learning by using problem-based spot capturing models obtained mean teacher response test score 8,14 or 81,4%, so teacher questionnaire response in category "Practical".

Problem-Based Learning (PBL) is defined as a type of learning resulting from the process of comprehending and solving a problem (Dabbah et al., 2000). Problem-based spot capturing integrates the active engagement of students in problem-solving process through direct experience and creative use of technology, resulting in the sense of empathy, critical and care about the environment.

The result of the research shows that the experimental group obtained a higher percentage score of creativity and caring than the control group. Therefore, it can be said that problem-based spot capturing implementation in social science class has an effect on the character development of students in elementary school. Character development so far has the very essential role in improving the students' academic achievement (Kamaruddin, 2012). A number of studies have documented the importance of

teacher on student's learning outcomes (Pianta et al.,2004). This study found that teachers play an important role in developing character through the instructional design.

This study found that teachers play an important role in developing character through instructional design. Such as applying the learning model that facilitates the learning styles of children in primary schools. Descriptive analysis showed that there were differences in the percentage of scores of creative characters and care about the students in the experimental group were better and higher when using problem-based spot capturing models. Based on the questionnaire responses of students and teachers were also obtained a score of practicality model of problem-based spot capturing the category of "practical or good". Students can achieve optimal learning achievement if they enjoy learning as the teacher builds the students' interest (Railsback, 2002: p.51). When the teachers provide learning assignments, the students also report on the positive impact of technology utilization and skill enhancement gained by implementing problem-based spot capturing. School staff is an essential element for developing a good student community, especially at the primary school level (Railsback, 2002: p.54).

4. Conclusions and Recomendations

Based on the positive outcomes of the teaching process,the researchers concluded that the problem-based spot capturing models applied to social science learning affects the development of creativity and caring of fourth grade students in elementary schools.In addition, there is a higher margin and different on the score obtained by the student characters in experimental group than the control group. Positive results also showed that there was an increase in students' problem-solving skills and the ability to use technology in learning in elementary schools.

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