

Development Creativity Students through Problem Based Learning Model in Physical Education in Reviewed of Adversity Quotient

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Abstract: The purpose of this research is to develop students' creativity through problem based learning model in physical education in review of adversity quotient. The research method used is experimental method with 2x2 factorial designs. The population in this study are the students of 10th grade in SMK 1 Cipanas Cianjur Regency consists of 10th grade as many as 8 classes with a total of 375 students. The sample in this research is as many as 60 students, consists of 30 students with high adversity quotient skills and 30 students with low adversity quotient skills. The sampling using cluster random sampling technique. The instrument used is a questionnaire to measure the level of adversity quotient and the creativity. The result of data analysis Two Way Anova showed that there are interactions between the learning model and the adversity quotient on students' creativity. Discussion and Conclusion of the study showed that problem based learning model has more effective impact and can be applied by physical education teachers in an effort to develop student creativity.

1 INTRODUCTION

In today's world of globalization, creativity is an important element in development and it is a basic capital in building a better quality of human resources in a country (Berezcki, 2016; Cheung, 2016). The term creativity is very difficult to define because creativity is a multidimensional concept so that many experts are advocating the meaning of creativity (Turpin, Matthee, and Kruger, 2015). The difference in the definition of creativity put forward by experts is a complementary definition, but the term that is often used in the world of education that creativity can be interpreted as a person's ability to create something new both in concepts or real work (Cheung, 2016; Rasmussen and Østergaard, 2016). Creativity is the result of the process of interaction between individuals and their environment. A person can be influenced by the environment in which he is located. It means, the creativity that is owned by a person can develop depending on the environment he is in. Student creativity can grow and develop well, if family environment, society, especially school environment also support them in expressing their creativity (Zimmerman, 2009). Related to the explanation, then one of the efforts to bridge the

development of student creativity is through learning physical education in the school environment (Cheung, 2010). But unfortunately, research on creativity is still rarely done in the world of education, especially physical education (Konstantinidou, Michalopoulou, Agelousis, and Kourtesis, 2013).

There is a learning model that is expected to be able to increase the creativity that is owned by students is by applying problem based learning model. Because problem based learning is a learning model, where physical education teachers provide a problem and give students the freedom to learn to solve problems and find solutions to the problem independently (Bethell and Morgan, 2011). Thus, it can be concluded that in addition to external factors that is by applying the model of problem based learning into learning physical education is able to facilitate students to improve their creativity (Awang and Ramly, 2008; Folly Eldy and Sulaiman, 2013). Nevertheless it cannot be denied that the quality of adversity quotient students themselves in the face of a problem is an internal factor is crucial to the development of a creativity. The role of adversity quotient in physical education is to help students not to give up easily and not easily despair of the learning problems they face. Adversity quotient can be interpreted as the intelligence of a person in the face

of difficulties or problems and help students to increase the potential within him that includes various components such as performance, motivation, empowerment, creativity, productivity (Parvathy and Praseeda, 2014). The better the adversity quotient the student has, the higher the creativity or the better the student is able to give a good response and able to survive in overcoming a difficulty, the higher the spirit of creation (Zhi-hsien, 2014).

According to the problems that have been described above, the purpose of this research is to develop students' creativity through the application of problem based learning model in physical education in review of adversity quotient. Some of the questions to be answered through this research are:

- Is there a difference of creativity between students given learning of problem-based learning model and group of students who are given direct instruction model?
- Is there any difference of creativity between students who are given problem-based learning model and direct instruction model in groups of students who have high adversity quotient ability?
- Is there any difference of creativity between students who are given problem-based learning model and direct instruction model in groups of students who have low adversity quotient ability?
- Is there an interaction of the model of learning and adversity quotient on student creativity?

Based on the analysis of previous research showed no one ever to study and try to apply problem based learning model and adversity quotient in an effort to develop students' creativity in physical education.

2 METHODS

2.1 Participants

This research will be conducted at SMK 1 Cipanas Cianjur. The population used was 10th grade student at SMK 1 Cipanas, Cianjur Regency in the academic year of 2016-2017 consisting of 10th grade of 8 classes with details: X agri business processing of agricultural products 1 and 2, X online business and marketing 1 and 2, X computer network engineering 1 and 2, X light vehicle engineering 1 and 2, the total totals are 375 students. Sampling using cluster random sampling technique. The sample in this study were 60 students, consisting of 30 students who have high AQ and 30 students who have low AQ.

2.2 Procedures

The research method used is experimental method with 2x2 factorial designs. The study was conducted for 5 weeks, while the learning was done 14 times as a whole, With details for the treatment of 12 meetings and 2 times that is one to perform the pretest and one to perform the posttest, with frequency 3 times a week, the treatment was given to the experimental group using problem based learning model, while in the control group using direct instruction model.

The instrument used is a questionnaire to measure the level of adversity quotient theory proposed by Stolz (2000) and the theoretical creativity put forward by Guilford (1950). This instrument is not known with certainty to have the validity and reliability of how much, therefore the authors will re-examine this instrument to find validity and reliability upon high school students of class X computer network engineering and X light vehicle engineering in SMK 1 Cipanas Cianjur. Data analysis using SPSS version 17.

3 RESULTS AND DISCUSSION

The main purpose of this research is to find out whether learning model and lean model based learning model can be used to facilitate the development of students' creativity in physical education. Overall the results of this study show that there is a difference between PBL and DI model, and PBL model is more suitable applied to high AQ students, whereas DI model is more suitable applied to low AQ students. Further data show there is interaction of learning model and AQ to creativity.

In relation to the results of previous research conducted by Temel (2014) showed that the design of pre-test-post-test control group, PBL has no significant effect. PBL and DI do not have a different effect on the disposition of critical thinking of teachers and have different effects on perceptions in problem-solving abilities. Based on the results of research Temel above is different from the results of research that the authors do, where the results show that the PBL model is better than DI to improve student creativity (Chen, 2013).

4 CONCLUSIONS

The implication is that when a teacher wants to increase the creativity possessed by students, then one

solution is to apply problem based learning model in the process of physical education. This is in accordance with the results of the study showed that problem based learning model has more effective impact and can be applied by physical education teachers in an effort to develop student creativity. Based on these conclusions the authors suggest to further researchers to complement the existing limitations in this study that is when the PBL model applied to low AQ group data results showed the creativity of students experienced a significant reduction.

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