The Effectiveness of Picture Simulation Game Method to Improve Critical and Creative Ability in Learning History in SMA N 1 Bandar

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Abstract— **This study aims to find out the improvement of critical thinking ability and creativity of students in history learning through a picture simulation game method. The research method used in this study is Classroom Action Research (CAR). This study is using a research cycle which consists of 2 repeating cycles. Data collection using a questionnaire before the application of image simulation and after the application of image simulation. The hypotheses of this study were being tested with a t-test to find out the improvement of critical thinking and creative ability. The results obtained are the application of picture game simulation method proved to be effective towards to improve the critical thinking and creative ability in the history learning in SMA N 1 Bandar.**

Keywords: learning methods, image simulation, critical thinking, creative thinking, history

I. INTRODUCTION

The learning method is a component which affects the success of the learning in school. Learning method may take part as a tool to create the learning process itself. Using the right method, involving the students in such active learning, may lead them to some change in their critical thinking and creativity aspect. The suitable method must be selected based on available teaching material and current running curriculum. The 2013 Curriculum emphasizes a scientific approach. This approach was expected to be an essential cornerstone towards the verge of science and the student's interest in science [1].

The application of lecture learning methods on history subjects has less effect on students' ability to think critically and creatively on history subjects at SMA N 1 Bandar. This statement acquired from an interview with the teacher of history program in SMA N 1 Bandar. The lecture method considered to be revolving around the teacher. The students were unable to showcase their ability to think creatively and critically while the study goes on. The passive outcome from the students can be seen from their less enthusiastic behavior on historical subjects. There are some evaluations needed to find out other obstacles of the learning process in the classroom so that the next

teaching could adapt to the current situation and condition of the class itself [2].

Learning material would be received by the students if it was given in the right method. In the 21st century, students show some interests in activities like game, films, social media, and a group chat [3]. Students nowadays tend to be more attracted to games more than study. If this kind of passion is combined with study material, that will change the course of the situation in the study process [4]. The combination of games and teaching materials makes students feel challenged, motivated and encourages students to be active in learning [5]. Therefore, they were expected to be more creative and sharp-minded on responding to the study material given by their teacher.

Picture game simulation would be one of the methods that can be used to improve the students' ability to critical and creative thinking. Simulation means an imitation or a mock action such as role-playing, psychodrama, sociodrama, and games [6]. n agree with Csenge Virag, the use of simulation game on study can be received by any range of ages, from children to adults [7]. The observation results showed that the game simulation not only able to entertain students, but also teach students to create bonds with their friends.

The simulation game may lead students to build an image towards the subjects that were given by the teacher. It is proved by an earlier researcher that there are some positive connections between games and study [8]. The effect of the simulation game is such as the student involvement in the subject, their performance, the critical and creative thinking ability and even the motivation on their studies [9]. Therefore, this simulation game may become an integrated part of the students' grade.

The focus of the picture simulation game is to deliver the information as simple as it could. The only problem when implementing this method is that students would likely be less discipline against the teacher's instructions. The high level of enthusiasm made the students becoming less aware of the instructions from the teacher even though this kind of

response is likely rational due to the implementation of the game itself which shows the activity in the study process.

II. RESEARCH METHOD

This study uses a Classroom Action Research (CAR) model of Kemmis and Mc. Taggart. The implementation of this research was done in two cycles. Every cycle consisting of planning, implementing, observation, and reflection. The data were collected with a questionnaire, observation, and interview. The survey was given at two times, before and after the simulation began. The objective is to know the improvement of critical thinking and creative ability of the student in history subject on topic The Dawn of Indonesia's Ancestors.

The researcher examined the data using effectiveness test through the SPSS. The effectiveness would be likely to know according to the results and by implementing the Independent Sample T-Test. If the significant level is lower than 0.05, Ha would be rejected, and if the significant level is above 0.05, then Ho is accepted.

Ho : Picture simulation game method had no significant results towards the students' ability to think critical and creative

Ha : Picture simulation game method had significant results towards the students' ability to think critical and creative.

III. RESULTS AND DISCUSSION

The teacher at SMA N 1 Bandar evaluates that critical and creative thinking ability is hard to implement in history learning. Firstly, history subject has a minimum amount in practical occasions. Secondly, the information needs to be completely memorized. Thirdly, history is about the recount of the past. Fourth, history is not a part of the main exam subject. History is not just about memorizing and repeating the past but also can be used as a reconstruction part for the future.

The learning method used to implement critical and creative thinking can be started by simple things, such as showing some pictures. The images can be used to stimulate the creative mind of a student. They who can think creative and critical would likely understand the subject better and be more open to new information. Therefore, the students were probably to need this kind of behaviour so that they can create something new, improving their ability and interests.

According to the evaluation and research results, there is a slight difference in the teacher's insight into the hardness of implementing critical and creative thinking behaviour. This can be seen from the response of the teacher when the picture simulation game was applied to the students. The game made students becoming more active, interactive, creative, happy and motivates students to study more about history. The learning activity not only listening to the

teacher anymore where the students alone sit in silence, but students also involved in passing the information towards other students.

TABLE I.   QUESTIONNAIRE NORMALITY TEST ON CRITICAL AND CREATIVE THINKING BEHAVIOR

Normality Test Result	Average	Significance
Experiment Class' Post-test	110,88	0,145
Control Class' Post-test	103,30	0,157

TABLE II.   QUESTIONNAIRE HOMOGENEITY TEST ON CRITICAL AND CREATIVE THINKING BEHAVIOR

Test Result	Significance
Homogeneity	0,288

The table above shows that the experimental class post-test questionnaire with an average of 110, 88 has a significance value of 0.145> 0.05, meaning that the data obtained are typically distributed. The results of the control class post-test questionnaire obtained an average of 103, 30 with a significance value of 0.157> 0.05, which means that the distribution is normal. While the homogeneity test results are 0.288, which is higher than 0, 05, so the data is homogeneous.

The research on the effectiveness of picture simulation game implementation on class X at SMA N 1 Bandar, resulting in a grade comparison before and after the students were given the treatment. The results are shown below.

TABLE III.   COMPARISON OF THE AVERAGE VALUE BEFORE AND AFTER TREATMENT (PRE-TEST AND POST-TEST)

Normality Test Result	N	Average	St. Dev
Experiment's Class Pre-test	24	99,58	8,495
Experiment Class Post-test	24	110,88	6,306
Control Class Pre-test	27	101,30	11,724
Control Class Post-test	27	103,30	7,162

TABLE IV.   QUESTIONNAIRE T-TEST ON CREATIVE AND CRITICAL THINKING BEHAVIOR

T-test Result	Significance
Independent Sample Test	0,000

The T-test purpose is to find out the accepted and rejected hypotheses. According to the effectivity test result, the picture simulation game method shows a significant improvement result. The behaviour test shows that the T-test score is 3,988>2,009 (compared in the sig table of 5%) with a significance level of 0,000<0,05.

IV. CONCLUSION

Based on the results of research and discussions that have been carried out during the study it can be concluded that the use of the image simulation game method is more effective than using the lecture method in class X SMA 1 Bandar. The effectiveness

can saw from the questionnaire data, which shows that the value of sig 0,000 < 0, 05. Other findings in the field based on the results of interviews and observations in the field are as follows:

1. The learning process using picture simulation game simplify the students to understand history subjects.
2. The students are becoming an enthusiast with the picture simulation game.
3. The picture simulation game made the students enjoy the study period

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For papers published in translation journals, please give the English citation first, followed by the original foreign-language citation [6].

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