



Application of Discussion Methods and Memory Board Games to Increase Student Activity and Learning Outcomes in History Learning

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ABSTRACT

Purpose of the study: The aim of this research is to apply discussion methods and memory board games to increase student activity and learning outcomes in history learning.

Methodology: This type of research is classroom action research. The samples in this research were class X history students and teachers in high school. The sampling technique uses purposive sampling. Data collection techniques through observation, interviews and tests. This research uses qualitative analysis and quantitative analysis.

Main Findings: The results of the research can be concluded that the application of discussion methods and memory board games can increase the activity and learning outcomes of class X students in high school in learning history. Before the action was taken, the average activity level for class X was 36.16%. In cycle I the average percentage of student activity indicators was 79.46%, increasing in cycle II by 9.38% to 88.84%. The class average score in cycle I, namely the pretest, was 48.18 and increased in the posttest by 26.32 to 74.5. The average class score in cycle II, namely the pretest, was 46.82 and increased in the posttest by 33.72 to 80.54.

Novelty/Originality of this study: As a novelty from previous research, this research will investigate the benefits of combining the use of discussion methods and memory board games in history learning. Then, through this research, the impact of memory board games on students in learning history will be known.

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1. INTRODUCTION

Education is a conscious effort to prepare students through guidance, teaching and/or training activities for their roles in the future [1]-[3]. Education is intended to make humans (students) develop their potential to have personality, intelligence and skills that are useful for themselves, society and the nation [4]-[5].

The selection of learning strategies is basically one of the important things that every teacher must understand, considering that the learning process is a multidirectional communication process between students, teachers and the learning environment [6]-[8]. Therefore, learning must be organized in such a way that there will be a direct learning impact (structural effect) towards changes in behavior as formulated in the learning objectives [9]-[11].

History lessons aim to create historical insight or historical perspective. History lessons also have a sociocultural function, raising historical awareness. In history lessons, it is necessary to include biographies of heroes including matters of personality, character, spirit of sacrifice, historical-mindedness, the difference between history and myth, legends and historical novels. Learning is indeed an active process for students to build their knowledge, not a passive process of just receiving lectures from a teacher about knowledge. In general, learning in classes is carried out in one direction, namely the teacher lectures more in front of the students and the students only listen [12]–[14]. Teachers assume their job is only to transfer the knowledge they have to students with the target of conveying the topics written in the curriculum. This causes students to only listen, be less active, lack understanding and have low memory. The lack of methods applied in learning is one of the factors that causes learning outcomes to be less than optimal [15], [16].

Based on the problems above, it is necessary to carry out a reform in history learning. The author chose the discussion method and Memory Board game. The discussion method helps students to actively ask questions and express opinions in solving a problem [17], [18]. The results of previous research found that learning by applying the discussion method carried out in three cycles showed an increase in student learning achievement in each cycle [19]. The difference in this research is combining the discussion method with a memory board game to increase student activity and learning outcomes in history learning. As a novelty from previous research, this research will investigate the benefits of combining the use of discussion methods and memory board games in history learning. Then, through this research, the impact of memory board games on students in learning history will be known.

Memory Board Games are a quick and easy game to help students understand subjects. This activity requires active involvement of the brain. This game helps students to understand a term or an image and when the brain thinks about something, then compares the experimental version with the accurate version when the teacher repeats the answer, reminders occur naturally. Researchers focused their research on the activity and learning outcomes of class X high school students. The aim of this research is to apply discussion methods and memory board games to increase student activity and learning outcomes in history learning.

2. RESEARCH METHOD

The research that will be carried out is classroom action research. Classroom action research is how a group of teachers can organize the conditions of their learning practice, and learn from their own experiences [20], [21]. The samples in this research were class X history students and teachers in high school. The data collection techniques in this research used observation sheets, interview sheets and pre-test and post-test instruments for student learning outcomes. The instrument grid for the student activity observation sheet is as follows.

Table 1. Student Activity Observation Grid

Observed aspects	Indicator	Item number
Visual activities	Students pay attention to the teacher's explanation, read lesson material, observe pictures	1
Oral activities	Students express opinions, ask questions in discussions	2
Listening activities	Students listen when a friend makes a presentation and expresses an opinion	3
Writing activities	Students record material in the learning process and record discussion results	4
Drawing activities	Students draw things related to prehistoric human material	5
Motor activities	Students move, change places, collaborate in discussions and presentations	6
Mental activities	Students are able to solve questions given by the teacher or other students and provide conclusions at the end of the lesson	7
Emotional activities	Students dare to appear for presentations and are enthusiastic about learning	8

Meanwhile, the grid for interviews with students and teachers is as follows.

Table 2. Interview Grid

Source	Question Indicator	Question Number
Implementation of learning using discussion methods and memory board games	Students' active learning in history learning using discussion methods and memory board games	1
	Efforts to increase learning activity	2
	Learning outcomes in history learning using	3

	discussion methods and memory board games	
	Efforts to improve learning outcomes	4
Constraint	What obstacles are encountered when using discussion methods and Memory Board games?	5
	Efforts to overcome obstacles in learning history using discussion methods and memory board games	6

The pretest and posttest questions each consist of 10 multiple choice items with five alternative answers, namely a, b, c, d, and e and two description questions.

Table 3. Grid of Learning Outcome Test Questions

Indicator	Pretest		Posttest	
	Multiple choice	Description	Multiple choice	Description
Cycle I				
1. Describe the division of eras based on geology which is divided into the Archaean, Palaeozoic, Mesozoic and Neozoic eras.	1,2		1,2	1
2. Describe the periodization of the cultural development of early Indonesian society, including the Stone Age (Palaeolithic, Mesolithic, Neolithic, Megalithic) and the metal age.	3,4	1	3,4	
3. Describe the types of ancient humans.	5,6,7	2	5,6,7	
4. Describe the results of ancient human culture in Indonesia.	8,9,10		8,9,10	2
Cycle II				
1. Describe and analyze the social life, culture and beliefs of hunting and gathering food at the simple level.	1,2	1	1,2	
2. Describe and analyze the social life, culture and beliefs of advanced hunting and food gathering communities.	3,4,5		3,4,5	1
3. Describe and analyze the social life, culture and beliefs of the community during farming.	6,7	2	6,7	
4. Describe and analyze the social life, culture and beliefs of the people during the Perundagian period	8,9,10		8,9,10	2

There are 2 types of data analysis techniques in this research. Quantitative data was carried out using descriptive statistical testing and qualitative data was analyzed using the Miles and Huberman interactive analysis model [22]. This research procedure begins with identifying and formulating problems, analyzing problems, formulating hypotheses of actions and monitoring, carrying out actions and observing them, processing and interpreting data, drawing conclusions.

3. RESULTS AND DISCUSSION

Based on the results of observations in cycle I of students' active learning, it shows that the implementation of history learning by applying the discussion method and Memory Board games in cycle I has succeeded in increasing students' active learning. The following are the results of observations of student learning activities in detail:

Table 4. Observation Results of Cycle I Student Learning Activeness

No	Aspect	Indicator	Percentage (%)	Success Criteria
1	Visual activities	Read learning resources	100%	≥ 75%
2	Oral activities	Students express opinions, ask questions in discussions	71.4%	
3	Listening activities	Students listen to teachers, friends who express opinions	85.7%	

4	Writing activities	Students record material and discussion results	78.6%
5	Drawing activities	Students draw things	50%
6	Motor activities	related to historical material	64.3%
7	Mental activities	Move, change places to form groups	92.8%
8	Emotional activities	Solve problems and conclude learning material	92.8%
Average			79.46%

For more details, see the diagram below:

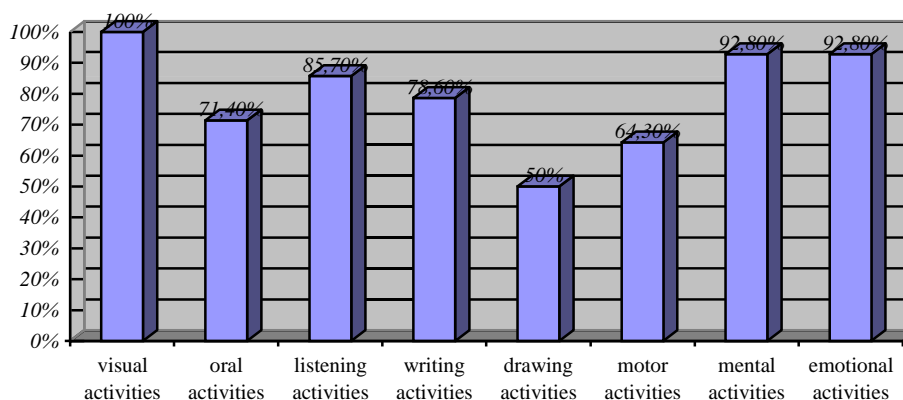


Figure 1. Cycle I Student Learning Activity Diagram

Based on the list of cycle I pretest scores, it shows that the majority of students have not been able to answer the description questions that have been given. The class average score is 48.18 with the highest score being 70 and the lowest score being 24. Apart from that, the highest score for students has not been able to reach the minimum completion criteria score, namely ≥ 73 . After applying the discussion method and the Memory Board game, the class average score is 74.5. The highest score is 85 and the lowest score is 60. There are only 6 students who have not reached the minimum completeness criteria. The learning outcomes test above shows that after taking action through the application of the discussion method and the Memory Board game, student learning outcomes increased from a class average score of 48.18 to 74.5, an increase of 26.32.

In general, observations of student learning activity in participating in learning activities in cycle II appeared to have increased compared to cycle I. The increase in cycle II resulted in the average percentage of learning activity in cycle II reaching the predetermined success criteria. The following are the results of observations of student learning activities in detail.

Table 5. Observation Results of Student Learning Activity in Cycle II

No	Aspect	Indicator	Percentage (%)	Success Criteria
1	Visual activities	Read learning resources	100%	$\geq 75\%$
2	Oral activities	Students express opinions, ask questions in discussions	82.14%	
3	Listening activities	Students listen to teachers, friends who express opinions	92.86%	
4	Writing activities	Students record material and discussion results	89.29%	
5	Drawing activities	Students draw things	71.4%	
6	Motor activities	related to historical material	85.71%	
7	Mental activities	Move, change places to form groups	92.8%	
8	Emotional activities	Solve problems and conclude learning material	96.43%	
Average			88.84%	

Based on the table above, it can be seen that in cycle II the average percentage of indicators of student learning activity had reached the specified success criteria, namely $\geq 75\%$. For more details, see the diagram below.

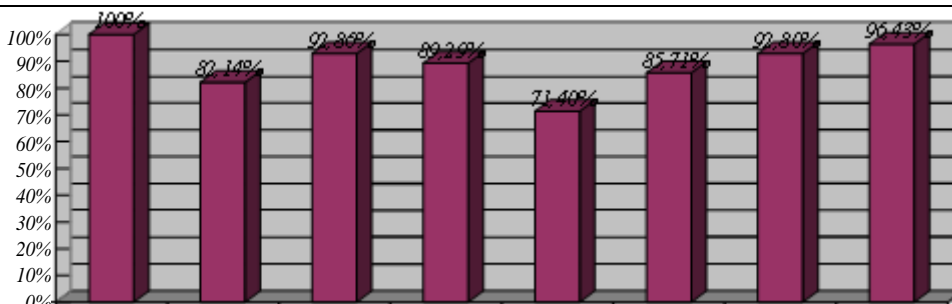


Figure 2. Cycle II Student Learning Activity Diagram

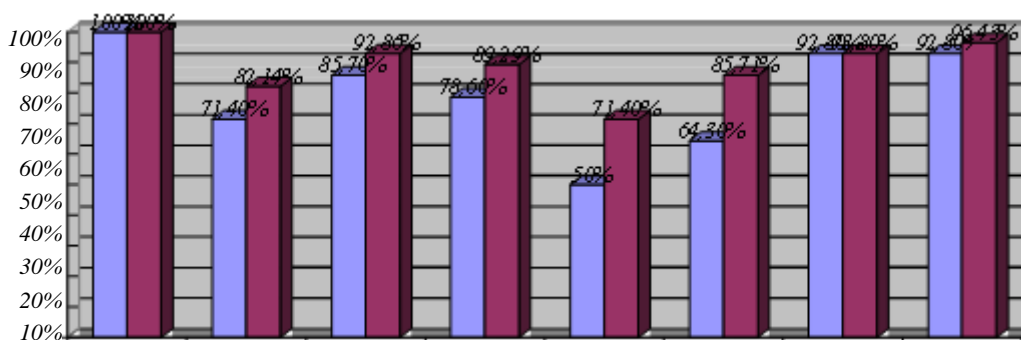


Figure 3. Graph of increasing activity

Based on the initial test (pretest), the class average score is 46.82. Even though the teacher has reminded students to always study. In cycle II the highest score was 80 and the lowest score was 25. In cycle II there was only 1 student who had reached the minimum completeness criteria. Based on the final test (posttest), the class average score after the action was carried out was 80.54. In the final test (posttest) the highest score was 95 and the lowest score was 63. Students began to be able to answer the descriptions correctly and completely. In cycle II, there was only 1 student who had not reached the minimum completeness criteria. The application of the discussion method and Memory Board games in cycle II was able to increase student learning outcomes from a class average score of 46.82 to 80.54, an increase of 33.72. To make it clearer, below is a diagram of student learning outcomes.

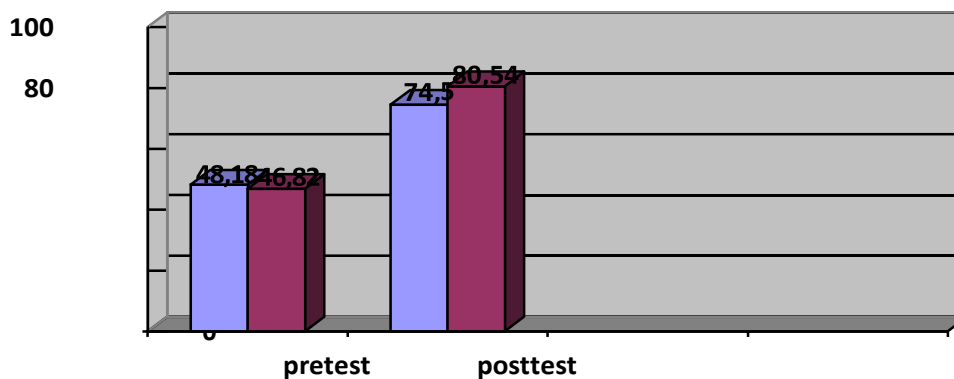


Figure 4. Graph of Average Learning Outcome Values

Applying discussion methods and memory board games to class X students in high school can increase activity and learning outcomes in history learning. The learning process using discussion methods and Memory Board games in cycle II went smoothly. Moreover, the addition of material explanations from the teacher through learning videos makes students gain broader knowledge. The percentage of active learning and learning outcomes has exceeded previously determined success criteria. In cycle II the average value of student learning outcomes was 46.82 for the pretest and 80.54 for the posttest. The average student learning activity in cycle II was 88.84.

The application of discussion methods and Memory Board games achieves maximum results when combined with learning videos. Students become more enthusiastic and their imagination about history lessons broadens. Based on the achievements of the actions carried out in cycle II, it reflects the success of the actions in the form of an increase in the average value of activeness to 88.84 and learning outcomes to 80.54. Therefore cycle II can be stopped. Based on cycle II reflections, it can be concluded that the discussion method and Memory Board

games combined with learning videos can increase student activity and learning outcomes in class X history learning in high school.

In cycle I, the application of the discussion method and Memory Board game went smoothly. The teacher opens the lesson with greetings, apperception, then holds a pretest. The teacher provides introductory material and explains the steps of the discussion method and Memory Board game. The teacher applies discussion methods and Memory Board games in history learning according to the learning scenario. The teacher draws conclusions at the end of the learning activity and then carries out a posttest. Based on observations in cycle I, it shows that the average percentage of learning activities reached 79.46%. The average activeness before action is 36.16%. Description of the condition of students when taking part in history lessons, namely that all students pay attention to the teacher's explanation, 20 students actively ask questions or express opinions, 4 students do not listen to friends who are presenting, 6 students do not take notes on historical material, 14 students make sketches of historical pictures, 18 students are enthusiastic for groups, 2 students did not solve the questions in the discussion and 2 students were lazy about presenting in class.

Based on the pretest in cycle I, the students' average score was 48.18 with the highest score being 70 and the lowest score being 24. The students' highest score had not been able to reach the minimum completeness criteria score, namely ≥ 73 . After applying the discussion method and the Memory Board game the average score was class namely 74.5. In the first cycle posttest, the highest score was 85 and the lowest score was 60. Even though there were 6 students who had not reached the minimum completeness criteria, student learning outcomes had increased from the class average score of 48.18 to 74.5, an increase of 26.32. Changes and improvements in cycle II include teachers actively building motivation to actively ask questions, group divisions being planned well, teachers clarifying the steps of discussion methods and Memory Board games, providing more time to discuss pictures of Memory Board games, and the use of learning videos so that students' knowledge and understanding is broader. In cycle II the implementation of the discussion method and Memory Board game went smoothly. The teacher opens the lesson with greetings, apperception, and conducting a pretest. The teacher provides introductory material and explains the steps of the discussion method and Memory Board game. The teacher applies discussion and game methods. Memory Board in history learning according to learning scenarios with additional learning videos. The teacher draws conclusions at the end of the learning activity and then carries out a posttest. Student activity reached 88.84%. The description of student activity in cycle II was that all students paid attention to the teacher's explanation, 23 students actively asked questions or expressed opinions, 2 students did not listen to friends who were presenting, 3 students did not take notes on historical material, 20 students sketched historical pictures, 24 students were enthusiastic about moving for groups, 2 students did not solve the questions in the discussion, and 1 student was lazy about presenting in front of the class.

In the initial test (pretest) cycle II the class average score was 46.82. In the second cycle pretest, the highest score was 80 and the lowest score was 25. In the second cycle pretest, only 1 student had reached the minimum completeness criteria. Based on the final test (posttest), the class average score after the action was carried out was 80.54. In the final test (posttest) the highest score was 95 and the lowest score was 63. In cycle II there was only 1 student who had not reached the minimum completeness criteria. The application of the discussion method and Memory Board games in cycle II was able to increase student learning outcomes from a class average score of 46.82 to 80.54, an increase of 33.72.

Based on the results of observations made by researchers and teachers, there are several obstacles faced in implementing the Discussion Method and Memory Board games, including the following: a) Some students are late for class. b) Students are not yet familiar with discussion methods and Memory Board games. The teacher is not clear in explaining the learning steps using discussion methods and memory board games. c) There are some students who do not dare to ask questions and express opinions. d) Group division is less effective and efficient. e) The atmosphere is not conducive during group discussions. f) There is not enough time for discussion of the Memory Board game pictures. g) Students' mastery of material is limited to teacher explanations, textbooks and worksheets.

Based on the results of observations made by researchers and teachers, there are several advantages in applying the discussion method and Memory Board games, including the following: a) Most students are active in learning history. This can be seen in several indicators: students pay attention to the teacher's explanation, students ask questions and express opinions in discussions, students listen to the teacher and their friends who are expressing opinions, students record material and discussion results, students make sketches of pictures related to the lesson material, students move and move in groups, and students dare to make presentations. b) History learning activities are more interesting and fun. This makes students enthusiastic, enthusiastic and not bored with history lessons. c) Students interact with each other, communicate, create an atmosphere of togetherness and closeness with friends. d) Students understand history lesson material more broadly. If students usually only learn history with theories, the application of discussion methods and Memory Board games broadens students' horizons with pictures that represent historical material and are more interesting.

In line with previous research, through the effective application of board game media in graphic design learning, the unique appearance of board games can attract students' interest in learning. The implication of

implementing this board game is that there is an increase in students' average test scores [23]. Then the results of further research showed that implementing board games increased student creativity and student self-confidence [24]. The results of previous research support the research results found in this research, namely that by combining discussion methods with memory board games, student learning achievement can be improved. The difference is that the research focuses on historical subjects only.

This research shows that combining discussion methods and memory board games in history learning can increase student engagement. This has implications for making history learning more interactive, participatory and fun for students. This research may be a consideration that teachers who carry out learning by applying discussion methods and memory board games are more effective in conveying history learning. This could have implications for professional development programs for educators, which emphasize the importance of training in innovative teaching methods. This study may have limited generalizability if conducted in a particular educational environment, such as a particular school or region. The results obtained may not be universally applicable to diverse student populations or educational contexts.

4. CONCLUSION

Based on the results of the research discussion that has been described previously, a conclusion can be obtained, namely that the application of discussion methods and memory board games coupled with learning videos can increase the activity and learning outcomes of class X students in high school in learning history. The average activeness before action is 36.16%. In cycle I, the percentage of student activity was 79.46%, increasing in cycle II by 9.38% to 88.84%. In cycle I the average value of learning outcomes before the action was 48.18 and after the action the average value was 74.5. Student learning outcomes increased by 26.32. In cycle II, the average value of learning outcomes before action was 46.82 and after action was 80.54. Student learning outcomes increased by 33.72. The obstacles faced in using the discussion method and Memory Board games are that students need quite a long time to adjust to learning using the discussion method and Memory Board games. In cycle I the teacher was not yet fully able to manage the class so the class became busy during group division and group discussions. The advantage of applying the discussion method and Memory Board games in history learning is that history learning is more meaningful and enjoyable because there is close collaboration between students in groups in completing assignments. Students become enthusiastic and more active in asking questions, expressing opinions or exchanging information. The application of discussion methods and memory board games can also increase student activity and learning outcomes in history learning. The researcher's recommendation for further research is to conduct research that focuses on the sustainability of learning gains over a long period of time. Evaluate whether positive effects observed immediately after the intervention persist for weeks, months, or even years.

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