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The Implementation of Game-Based Learning in Sociology Class X-2 at SMA Negeri 8 Surakarta

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ABSTRACT

The evolving demands of the times necessitate that educators develop innovative and engaging learning experiences for their students. Additionally, teachers as facilitators, must also be able to understand the needs of their students. When students experience a decline in motivation during lessons, it is necessary for teachers to take action. This situation occurred in class X-2 at SMA Negeri 8 Surakarta. The categorization results showed that 66% of the students had low motivation in learning. Therefore, it is essential for the teacher to take action to address the low learning motivation among the students. This study aims to examine the effectiveness of implementing game-based learning to increase students' motivation. The research was conducted through classroom action research over two cycles. Both cycles applied game-based learning to the material on various social phenomena and social research. The number of students participating in the study was 36. Data collection was carried out through observation and reflection after the lessons were conducted. The results showed an increase in students' learning motivation after the intervention. Thus, it can be concluded that the implementation of game-based learning can be an innovative and engaging alternative for students.

Keywords : Game-Based Learning, Sociology, Teacher

INTRODUCTION

Education in Indonesia faces a significant challenge in preparing high-quality human resources that are capable of competing in the global society. One such challenge is the ASEAN Economic Community (AEC). The AEC intensify competition in the labor market. Additionally, the AEC serves as a platform for proving the quality and quantity of a country's human resources to other ASEAN nations. The most appropriate way to prepare for this competition is by improving the quality of education.

According to Law Number 20 of 2003 concerning the national education system, education functions to develop capabilities and shape the character and civilization of a dignified nation in the context of educating the nation's life. Based on this law, education aims to develop the potential of students to become individuals who believe in and fear God Almighty, possess noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens. This function cannot be effectively carried out if the educational process does not meet the needs of students. Teachers, as facilitators, must be able to meet the needs of students, both physically (learning needs) and psychologically (Fauzi and Mustika 2022).

The rapid development of technology requires students to actively use gadgets in their daily lives, including at school. This often creates problems in the teaching and learning process (Restela and Putri 2023). In the research conducted by Restela and Putri (2023), it was revealed that the use of gadgets can enhance the learning process in the classroom. As a result, schools, particularly at the high school level, no longer prohibit the use of gadgets during lessons. Students frequently lose concentration and motivation during lessons, as seen in Class X-2 at SMA Negeri 8 Surakarta. 66% of students have low motivation during class. This data was obtained from classroom observations. Students with low learning motivation showed signs of drowsiness, playing with their phones, and not following the teacher's instructions. Additionally, the pre-test results showed that 52.8% of students did not achieve optimal results. Therefore, teachers need to innovate in teaching methods. Innovation can be done through the implementation of Game-Based Learning (Partovi and Razavi, 2019).

Game-Based Learning has become a popular choice as part of the learning environment with the development of computer and smartphone technology. Various

digital-based games have been developed and implemented in the learning process (Partovi and Razavi, 2019). Game-Based Learning can be adapted to a non-digital form if the class is in a situation where gadgets are not used in learning. Moreover, the implementation of Game-Based Learning can also be done in combination. Sometimes students are asked to search for information online. However, there are times when the involvement of gadgets is not necessary, with the aim of helping students concentrate more on interactions in the classroom.

According to Torrente, (in Pratiwi & Musfiroh, 2014). Game-Based Learning is the use of games for serious purposes (i.e., educational purposes) as a tool that significantly supports the learning process There are several benefits of using games in learning, including (De Freitas, 2006):

1. Motivating and engaging all students in learning.
2. Training students' abilities such as literacy and numeracy skills.
3. Serving as a therapeutic medium for overcoming cognitive difficulties.
4. Playing specific roles or professions before practicing them in real life.
5. Empowering students as producers of multimedia or game-based content.

In recent years, many studies have revealed that Game-Based Learning is highly effective when properly implemented in education. As stated in the research conducted by Hui and Mahmud (2023), game-based learning can enhance students' learning abilities in mathematics. Two aspects that were improved include cognitive abilities and mathematical calculation skills (Hui and Mahmud 2023). Another study conducted by Nadeem, Oroszlanyova, and Farag (2023) also showed that the game-based learning method could increase students' learning motivation (Nadeem et al. 2023).

Game-based learning plays an important role in influencing students' motivation, making them feel happy, more enthusiastic, challenged, and fostering cooperation among peers (Anjani et al., 2016). Another study also mentions that game-based learning, especially card games, can increase attention, motivation, and curiosity (Azizah Mashami, Andayani, & Sofia, 2014).

This research aims to examine the effectiveness of implementing game-based learning to enhance students' motivation. Additionally, through the methods employed, the researcher seeks to observe the improvement in students' learning motivation, ensuring that the learning process becomes meaningful for all students.

METHOD

This study employs the Classroom Action Research (CAR) method. Classroom Action Research is a systematic study of efforts to improve the implementation of educational practices by a group of teachers through actions in learning, based on their reflections on the outcomes of these actions. The research model used in this study is a cyclical model consisting of four components: planning, action, observation, and reflection. The research subjects are the 36 students of Class X-2 at SMA Negeri 8 Surakarta. The research instrument is an observation sheet used to observe the condition of students in the classroom. The data analysis technique is conducted using descriptive analysis.

This study implements the Game-Based Learning method through the "Main Kata" game. Students are divided into five groups based on their understanding level of the material. They are then asked to find words related to social research material. The results are then discussed in class. The teacher, as a facilitator, assists the students during discussions and guides the reflection on learning outcomes. This aims to ensure that the learning process is meaningful for each student.

This research was conducted through three cycles: pre-cycle, cycle I, and cycle II. After completing these cycles, the researcher documented observations and findings in the classroom. Based on the collected data, conclusions were drawn regarding the effectiveness of using game-based learning in sociology education.

RESULTS AND DISCUSSION

SMA Negeri 8 Surakarta is located on Jalan Sumbing Raya, Mojosongo, Jebres, Surakarta. It is a government-owned school that has developed in line with the times. SMA Negeri 8 Surakarta was converted from SGPLB (Special Education Teacher School), and the building was a donation from SGPLB, established in 1984 and later converted into SMA Negeri 8 Surakarta by Decree Number: 0106/0/1996. It has continued to function as SMA Negeri 8 Surakarta until today. In the academic year 1995/1996, the school's learning activities began with financial support from contributions and tuition fees, as it had not yet received funding allocation from the government. SMA Negeri 8 Surakarta occupies the former SGPLB building, complete with its facilities and infrastructure, and sits on 4.2 hectares of land. The results of observations at SMA Negeri 8 Surakarta were

obtained using observation sheets and interview sheets covering both academic and non-academic targets.

The observation results of the school environment showed that SMA N 8 Surakarta is located in a densely populated residential area. Despite this, the environment is conducive to the teaching and learning process. However, several socio-economic aspects hinder the learning process. One of these aspects is that most students come from lower-middle socio-economic backgrounds, impacting their readiness to learn. There have been cases where students could not attend school because they had to work, posing a unique challenge for teachers to ensure these students return to school and learn according to their role as students.

Another challenge teachers face, especially in class X-2, is the low motivation of students to learn. Data related to the low motivation of students in X-2 was obtained from the implementation of two learning cycles preceded by a pre-cycle stage. Data from the pre-cycle stage indicated low learning motivation among students. A total of 12 out of 36 students showed high learning motivation, paying attention to the teacher's explanations, following instructions, and actively answering questions. Meanwhile, 24 students with low learning motivation were distracted, playing with their phones, or sleepy during the lesson. The indicators of students' learning motivation levels can be seen in the following table.

Indicators of Students' Learning Motivation Levels

Indicator	Learning Motivation Levels	Score
Sleepy during the lesson, playing with the phone, not paying attention to the teacher's instructions.	Very Low Motivation	1
Less focused during the lesson, following the teacher's instructions while playing with the phone, passive in answering questions.	Low Motivation	2
Focused during the lesson, following the teacher's instructions, passive in answering questions.	Moderate Motivation	3
Focused during the lesson, following the teacher's instructions, active in answering questions.	High Motivation	4

The above indicators were created based on observations during the pre-cycle learning process. The results indicated that 24 students (66.7%) fell into the very low, low, and moderate motivation categories. Of these, 10 students sitting in the back row (27.8%) had very low motivation levels, while 8 others (22.2%) had low motivation levels, and 6 students (16.7%) were moderately motivated. The remaining 12 students (33.3%) fell into the high motivation category. The pre-test results showed an average score of 63.3 with a Minimum Competency Achievement (AKM) of 75. This figure indicates that the average understanding of students is still below the AKM. The summary of student motivation levels can be seen in the following table.

Summary of Student Motivation Levels Pre-Cycle Stage

Motivation Levels	Percentage	Number of Students
Very Low Motivation	27,8 %	10
Very Low Motivation	22,2 %	8
Moderate Motivation	16,7 %	6
High Motivation	33,3 %	12

The first action was carried out in Cycle I as follows. First, the teacher designed the lesson according to the students' needs and the solutions required to increase their learning motivation. Then, the teacher implemented the lesson according to the plan. The steps included starting the lesson with greetings and prayers, ensuring students' readiness by conducting ice-breaking activities. The purpose of ice-breaking before the lesson is to help students concentrate better. Ice-breaking was done by playing a number-guessing game from one student to another. After ice-breaking and ensuring that students were ready to learn, the teacher asked a stimulating question related to the material to be studied. Then, the students were divided into five groups based on their pre-test results. The first level included students with high knowledge, the second level with moderate knowledge, and the third level with low knowledge. Students with high knowledge formed one group, those with moderate knowledge formed another, and those with low knowledge were divided into three groups.

The purpose of categorizing students based on their levels is to make it easier for the teacher to provide attention and materials according to the students' levels. Through this categorization, it is also easier to monitor the development and changes in students' motivation. After categorization, students were given a word search worksheet. They were allowed to find words in a letter grid and then search for their meanings using various information sources. This showed a hybrid method between non-digital game-based learning and digital game-based learning, so students did not feel bored and were challenged to participate in the lesson.

The results after the action in Cycle I showed an increase in students' motivation. According to the indicators, 16 students (44.4%) were in the very low, low, and moderate motivation levels. Eight students in the back row (22.2%) had very low motivation, six others (16.7%) had low motivation, and two (5.6%) were moderately motivated. The remaining 20 students (55.6%) were highly motivated. These results indicate an improvement from the pre-cycle stage to Cycle I. The summary is as follows.

Summary of Student Motivation Levels Cycle I Stage

Motivation Levels	Percentage	Number of Students
Very Low Motivation	22,2 %	8
Very Low Motivation	16,7 %	6
Moderate Motivation	5,6 %	2
High Motivation	55,6 %	20

After completing Cycle I, Cycle II was conducted. The implementation steps in Cycle II were not different from Cycle I. However, in Cycle II, the teacher added more variety to the ice-breaking activities. This aimed to prevent students from getting bored. Additionally, the word search game was varied with different techniques. Although both Cycle I and Cycle II used word search games, in Cycle II, the teacher tried different game techniques to make it more exciting. The results showed an increase in students' motivation to learn. According to the indicators, seven students (19.4%) fell into the very low, low, and moderate motivation categories. Two students in the back row (5.4%) had very low motivation, four others (11.1%) had low motivation, and one student (2.9%) was moderately motivated. The remaining 29 students (80.56%) were highly motivated.

These results indicate an improvement from the pre-cycle stage to Cycle II. The summary is as follows.

Summary of Student Motivation Levels Cycle II Stage

Motivation Levels	Percentage	Number of Students
Very Low Motivation	5,4 %	2
Very Low Motivation	11,1 %	4
Moderate Motivation	2,9 %	2
High Motivation	80,56 %	29

The results from the pre-cycle stage to Cycle II show an increase in students' learning motivation using the game-based learning method. The summary of this improvement can be seen in the following table.

The Recap of student motivation levels during the Pre-cycle, Cycle I, and Cycle II

Stage	Percentage of Very Low, Low, and Moderate Motivation Levels	Number of Students
Pre-Cycle	66,7 %	33,3 %
Cycle I	44,4 %	55,6 %
Cycle II	19,4 %	80,56 %

The concept in this study refers to game-based learning, a teaching technique based on games aimed at helping enhance students' potential and quality in absorbing knowledge. Videnovik et al. (2023) stated that game-based learning is a tool that can help students solve problems, improve critical thinking, and make judgments in the learning process. Rodríguez-Ferrer, Manzano-León, and Aguilar-Parra (2023), stated that research in educational design has shown that game-based learning is one of the most effective tools in teaching, especially for maintaining ongoing learning motivation.

Learning at SMA N 8 Surakarta still lacks interactive applications to attract students' attention. Based on the results of the observations, the researcher found Teachers still use blackboards and PowerPoint presentations as media to explain the

material to students. The material delivery is still conventional, explaining through PowerPoints and conducting question-and-answer discussions, which seem monotonous and less attractive to students. The lack of variety in teaching models and media leads to monotonous learning processes. Therefore, the researcher attempted to conduct classroom action research by implementing game-based learning. After using game-based learning with word search games and observing the increased learning motivation in sociology class X-2, it is possible that this learning model can be applied to other subjects at SMA N 8 Surakarta.

The pre-cycle to cycle II phases were carried out simply due to the limited time available to the researcher. Each cycle was conducted with a single meeting that included activities from the pre-test to the assessment. Consequently, there are some limitations to the data available to the author. After conducting the research at SMA N 8 Surakarta, it is hoped that teachers will be able to apply the Game-Based Learning model to other subjects as a variation in classroom learning to prevent student boredom. Students are expected to be more active in participating in lessons, such as actively asking questions, answering questions from the teacher, expressing opinions, collaborating in groups, and so on. Students are also expected to develop communication skills, work cooperatively in groups, and encourage each other to create positive interdependence.

The game-based learning model is one of the educational approaches that began to be developed by academics in the 1980s. This model aims to introduce a different way of learning, not just through listening but also by incorporating games. Today, game-based learning has started to be applied in inclusive classrooms. According to research conducted by Rodríguez-Ferrer et al. (2023), game-based learning has proven to be quite effective for inclusive classes (Rodríguez-Ferrer et al. 2023).

CONCLUSION

The implementation of the game-based learning method in Sociology for class X-2 at SMA Negeri 8 Surakarta can enhance students' learning motivation. This is evident from the learning cycles conducted, starting from the pre-cycle, cycle I, and cycle II. The results from all three cycles show a significant increase in students' learning motivation. The number of students with high motivation criteria has been steadily increasing. Therefore, the application of the game-based learning method proves to be quite effective

for the students of X-2 SMA Negeri 8 Surakarta. It is hoped that this method can be applied to other subjects in a more interactive way to better meet students' needs.

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