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ANALYSIS OF MONOPOLY GAMES WITH WEST SUMATRAN TOURISM NUANCES IN INCREASING CLASS X STUDENTS' INTEREST IN LEARNING

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ABSTRACT

This study aims to examine and examine more deeply the mathematics monopoly game that can increase the learning interest of class X students at UNP Laboratory Development High School. This research was conducted to describe students' interest in learning mathematics monopoly game on statistics material in class X students at UNP Laboratory Development High School. This research uses descriptive qualitative methods. The data collection techniques used are questionnaires, interviews and documentation. The subjects in this study were X grade high school students with a total of 16 respondents. The data from the results of this study obtained an interval score based on the Likert scale calculation of 75.93 with the interpretation that students strongly agree that the mathematics monopoly game with tourist nuances in West Sumatra can increase the learning interest of class X students.

Keywords: Maths Game, Maths Monopoly, Learning Interest, West Sumatera Tourism

INTRODUCTION

Interest in learning is the encouragement that exists in students in learning something with full awareness, calmness, and discipline so as to make students active and happy in doing so. (Friantini & Winata, 2019). Student interest in learning can be seen from student responses and student contributions to learning. (Hidayati et al., 2023). Each student has a different sense of interest in learning (Setiawan et al., 2022). There are those who think maths is a fun subject and those who think maths is a difficult subject filled with formulas. (Jayanti et al., 2020). The success or failure of the learning process will depend on how the teacher presents the material (Ilyas & Syahid, 2018). However, the fact is that many students still find maths difficult and boring so they are often silent and do not show their enthusiasm when learning takes place (Amallia & Unaenah, 2018; Assen, 2020). They think maths is full of formulas (Saputra & Aini, 2019). In addition, students only listen and accept what is conveyed by the

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teacher so that some of the students think that mathematics is a difficult lesson so it is not interesting to learn (Kholil & Zulfiani, 2020; Rachman et al., 2023).

If the material presented is interesting to students, it will also have a positive influence on student interest in learning. One that can be used is using learning media (Erianto, 2017; Febrita & Ulfah, 2019; Ningrum, 2018). Learning media is a tool in conveying messages that can arouse students' attention, thoughts, feelings and interests in learning (Junaidi, 2019; Nurrita, 2018). Learning media is very effective in achieving the success of the learning process. The application of innovative media can make students excited in learning, thus increasing students' interest in learning. Innovative learning media can be used in groups to develop the characters of collaboration, honesty and discipline and can also be used individually (Sihotang, 2022). Learning media with an element of play is an innovation to make students happy, enthusiastic, and make lessons not boring (Maryanti et al., 2021). Some of the benefits of learning through play are getting rid of the seriousness that inhibits, relieving stress in the learning environment, building students' creativity, and improving the learning process (Praheto & Sayekti, 2021; Rahayu, 2018).

The results of research conducted by (Chiotaki et al., 2023) using games in learning can engage students and have a positive influence on improving the learning experience. One game that is familiar to teenagers is Monopoly. Based on previous research conducted by (Cyntia et al., 2021) characterised monopoly game media developed can attract children's motivation in learning. In addition, monopoly learning media can increase curiosity in children and children are not easily bored during learning. In addition, the research conducted by (Desyawati et al., 2021) resulted in monopoly media emphasising cooperation, competition, and student sportsmanship. This study also explained that the disadvantages of monopoly media are the longer learning allocation, and conditioning the class so that no noise occurs. Monopoly game is played by several groups consisting of several people. Monopoly maths usually uses the names of countries in the world. However, the mathematical monopoly used in increasing interest in learning in this study is a mathematical monopoly with tourist nuances in West Sumatra. Monopoly displays several tourist attractions in several regions in West Sumatra. So that students become aware of tourist attractions in West Sumatra that they have never visited to increase students' love for their own country. Based on some of the above opinions, this study aims to examine and examine more deeply the mathematics monopoly game that can increase the learning interest of class X students at UNP Laboratory Development High School.

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RESEARCH METHOD

The method used is descriptive qualitative research. Descriptive qualitative research is research that describes or investigates an event whether it is true that mathematics monopoly with West Sumatra tourism nuances can increase the learning interest of class X students. The subjects in this study were class X students at UNP Laboratory Development High School in the 2023/2024 school year totalling 16 people. According to Safari (dalam Ricardo & Meilani, 2017) The indicators of student interest in learning are feelings of pleasure, student interest, student attention to the game, and student involvement in playing. This research data collection uses interviews, questionnaires after students play monopoly and documentation. Interview is a data collection technique to obtain information that will be considered as data and these data are needed to make the best possible formulation in achieving research objectives (Mita, 2015). Meanwhile, a questionnaire is a number of questions given to respondents to obtain data on the topic of the research being conducted (Sugiyono, 2012). Documentation as supporting evidence of the data obtained.

The type of qualitative data analysis used is content analysis (Ahmad, 2018). Content analysis is a research method that converts a text, subject on written media, photos, videos, or audio into quantitative data so that it can be easily used and read by readers in the form of a Likert scale as shown in the table below. The student learning interest questionnaire was prepared by including one statement consisting of a scale of 1-4. After obtaining the questionnaire score, then the questionnaire score is categorised according to the Likert scale of strongly agree, agree, disagree, and strongly disagree as shown in Table 1 below

Table 1. Criteria Based on Likert Scale

Interval	Interval Interpretation
1	Strongly disagree
2	Disagree
3	Agree
4	Strongly agree

RESULTS

The maths monopoly contains statistics questions. Before students buy tourist attractions, they must first answer the questions with questions given at different times. Statistics material was chosen because it was material that they had learnt before. Based on the research that has been done, the researcher conducted a mathematics game trial activity on Wednesday, 16 May 2024 which was carried out in class X.E5 UNP Laboratory Development High School. Students were divided into four groups with each group of 4 people. The monopoly game runs like a monopoly game in general with the same conditions, there are a few things that distinguish. If students want to buy, they must answer questions,

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if they are correct, they can buy land, if they are wrong, they will be fined. From this, it will bring out the nature of student involvement in the game so that students will feel interested and challenged for it. Monopoly is 1m × 1m in the shape of a six-square, with each complex consisting of tourist attractions, beauty of mathematics, which contains mathematical puzzles, and profiles of Pancasila students consisting of 6 profiles of Pancasila students. This maths game lasts for one hour, and the next 30 minutes is for the verification stage of students' wrong answers, so that students understand more about statistics material. For more details can be seen from Figure 1 below.

Figure 1. Monopoly Game Board

The pawns used in the game are also traditional clothing from West Sumatra as shown in Figure 2 below.

Figure 2. Pawns in Monopoly Game

The monopoly game was led by the teacher. The game begins with directions regarding the rules of the game and the division of groups by the teacher where the teacher here is the researcher as shown in Figure 3 below.

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Figure 3. Briefing from Teacher

Then the game is carried out in a relay alternating with group mates when students answer questions. Each student takes turns to come forward to play the game and take turns. The questions to be answered are discussed, while discussing other students take turns to come forward to play again as shown in Figure 4 below.

Figure 4. Monopoly Game in Progress

After the students answer the question, they will show the answer to the teacher. Next, the game is played for one hour and the verification stage. Students were given a questionnaire related to several statements regarding students' learning interest in the monopoly game played with the aim of obtaining information. Based on the Likert scale, the following is presented the results of the questionnaire score of learning interest after conducting the monopoly game trial in Table 2 below.

Table 2. Learning Interest Questionnaire Score Results Based on Likert Scale

No	Statements	Number of students who answered			
		1	2	3	4
1	The maths monopoly game helps me remember statistical material	0	1	13	2
2	I enjoy teaching and learning activities using the maths monopoly game	0	1	9	5

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3	I am more excited about learning maths using the maths monopoly game	0	0	14	2
4	I feel relaxed when learning maths using the maths monopoly game.	0	2	8	6
5	The appearance of the mathematics monopoly game displayed is attractive in terms of colour, writing, and pictures.	2	1	5	8
6	The language used in the maths monopoly game is easy to understand.	0	3	10	3
7	With the maths monopoly game, I am more interested in learning statistics material.	1	5	8	2
8	The pictures in the maths monopoly game are clear and do not confuse me.	1	1	11	3
9	The maths monopoly game keeps me motivated in learning maths	0	4	9	3
10	I would like a maths monopoly game in the learning process.	0	2	11	3

Furthermore, after the questionnaire was given, interviews were conducted with several students regarding the game that had been tested. The following is a response from one of the students:

Teacher : *"What do you think of today's Monopoly game?"*

Student : *"Today's game was a lot of fun, especially with older siblings who could overcome their lack of understanding of the material and lack of understanding of the game. With this game, there are more moments to group together."*

Teacher : *"Is this monopoly game interesting?"*

Student : *"This monopoly game is a very interesting, steady"*

Based on the results of questionnaires and interviews, students are interested in playing maths. With maths games, students are also trained in collaboration in their groups to win. Students who win this game are students who answer a lot of questions and are also active in this game.

DISCUSSION

After the questionnaire data is obtained, measurements will be made based on a Likert scale. The following is the calculation of the Likert scale of interest in learning mathematics towards the mathematics monopoly game with the nuances of West Sumatra tourism. The number of samples is 16 people. The number of statements is 10 with respondents who answered score 4 totalling 37, score 3 totalling 98, score 2 totalling 20, and score 1 totalling 4.

Next, use the formula = T × Pn. Where T is the number of respondents who chose, and Pn is the Likert score option. So that the sum of the whole total, obtained 486. Then interpret the calculation score where Y is the highest Likert score × number of respondents × the number of statements will

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result in 640. Furthermore, the calculation where X is the lowest Likert score × number of respondents × The number of statements will result in 160. After that, determine the interval formula with

$$I = \frac{100}{sum\ of\ scores}$$

Then = $\frac{100}{4} = 25$ (the interval is the distance from the lowest 0% to the highest 100%) based on Table 3 below.

Table 3. Interval Interpretation

Interval	Interpretasi Interval
$0 \leq x \leq 25$	Strongly disagree
$25 < x \leq 50$	Disagree
$50 < x \leq 75$	Agree
$75 < x \leq 100$	Strongly agree

Then the final solution to get the conclusion is

$$x = \frac{Total\ score}{Y} \times 100$$

$$= \frac{486}{640} \times 100$$

$$= 75{,}93750$$

Based on the completion, students' interest in learning mathematics games is in the interval of $75 < x \leq 100$. This means that students strongly agree that the mathematics game with the nuances of West Sumatra tourism can increase the interest in learning mathematics of class X students. This is also supported by the results of research from that the use of games in learning can increase student interest in learning due to direct involvement of students in the game, pleasant learning conditions, interaction between friends, and can increase student activeness in learning, creative thinking, and solving problems both individually and in groups (Afifah et al., 2023; Cyntia et al., 2021; Lubis & Harahap, 2016; Sihotang, 2022). However, monopoly media has several disadvantages, namely requiring careful planning, the use of monopoly media that takes a long time to play, and is not effective for repeated use.

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CONCLUSION

This research proves that the mathematics monopoly game with West Sumatra tourism nuances can increase students' interest in learning mathematics. The use of interesting game media and teamwork in the game makes students more enthusiastic in learning. The monopoly game can be one of the alternative media used by teachers in learning so that students are happier to learn. So, students don't think maths is a difficult subject.

SUGGESTION

Further research, other researchers are advised to adjust the questions to the mathematical abilities to be tested and other researchers can determine which abilities of the students are problematic so that the questions given, it should also be held a pretest before the game. For teachers, it can be a consideration for the use of learning media in schools, but making this media takes a long time, other alternatives can use other traditional games.

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