The Effect of The Use of Snake Media on Students Learning Interests

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Abstract: The purpose of this study to determine the effect of media usage snake and ladder on student interest in Primary School. This study used a Kausal design. This research was conducted in Class 4 SDN Katulampa 1 Bogor City in the odd semester of the 2020/2021 school year. The analysis technique used is the analysis prerequisite test which includes the normality test, homogeneity test, then the research hypothesis is carried out using the t-test. Based on the results of research in grade 4 SDN Katulampa 1, there is a significant influence between media use snake and ladder with student interest in learning, this can be shown from the results of the correlation coefficient (r_{xy}) of 0.78 which shows that there is a strong influence of the variable use of snake and ladder media on student interest in learning and the $t_{count\ is}$ 8,480. This is also evidenced by the regression equation $\hat{Y} = -58,23 + 1.5\ X$, meaning that each increase in the use of snake and ladder media will increase student interest in learning by 1.5 units. Besides, the results of the coefficient of determination $r^2 = 0.60$, which means that the snake and ladder learning media contributed 60% to the interest in learning, while other factors contributed 40%. This shows that there is an effect of using the snake and ladder media on students' interest in learning

Keywords: Learning Interest, Media, Snakes and Ladders

INTRODUCTION

Education during the Covid-19 pandemic like this was greatly affected. The implementation of education cannot be carried out properly due to social restrictions to reduce disease transmission. Education is finally carried out remotely, both online and in blended learning. For regions and the abilities of parents that are not possible to be carried out in a normal way, the school applies blended learning, namely learning that is partially carried out through an online network and several parts are carried out face-to-face through teacher visits to student homes or home visits.

The impact of distance learning is very influential on student interest in learning. The implementation of learning that does not involve students face-to-face and get guidance from the teacher causes students to be less interested in learning. Students feel monotonous to study material independently through books or teaching materials given by the teacher through video or television shows.

The elementary school period is still a period of play therefore a learning space is needed that requires students to be able to learn from several games so that learning is not boring. Games that can be developed in the learning process are games that are well known in children's games, including the game of snakes and ladders. The snake and ladder game are a traditional game that requires students to be able to learn concentration and sportsmanship in the implementation of the snake and ladder game is a game for children consisting of a board game played by several people (2 or more people (Kusumawardhana, 2014)

Snakes and ladders as an interactive and communicative communication tool between players. Playing on the snakes and ladders can be modified in the learning process so that the games are, there is a learning material and can be entertaining. according to (Nugroho, Raharjo., and Wahyuningsi, 2013) states that with games, students will be more enthusiastic and interested in being actively involved in

learning. By playing snakes and ladders students are expected to construct facts, kraft, and generalizes a matter of teaching.

The use of snake and ladder learning media can be used as an alternative learning media to increase interest in learning during the Covid-19 pandemic like now, considering that more students are at home which of course will be boring for students. Based on the results of observations and interviews with students, teachers, and parents, it is obtained that data Boredom can be seen from inappropriate collection of assignments, doing tasks with no enthusiasm even with parental guidance, there are complaints raised by parents whose children are difficult to be conditioned to learn.

The use of instructional media is very important to overcome the obstacles that occur to students so that students can return to being interested in learning and get good learning outcomes. This research is important to do to determine how influential the use of snake and ladder learning media is on student interest in learning at SDN Katulampa 1 Bogor City.

METHOD

This study uses a quantitative research method with a causal approach to determine how much influence the use of snake and ladder learning media has on student learning interest 4 at SDN Katulampa 1 Bogor City, Odd Semester, Academic Year 2020/2021. The population in this study were 49 students who were grade 4 students at SDN Katulampa 1 Bogor City. The variable in this study is the independent variable (X), namely the Learning Media of Snakes and Ladders, and the dependent variable (Y), namely the students' interest in learning with a constellation of research problems as follows:
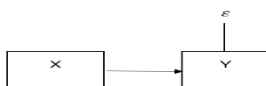

Figure 1. Constellation of Research Problems (Sugiyono, 2017)

RESULT AND DISCUSSION

The research data were grouped into two independent variables (X), namely the Learning Media of Snakes and Ladders, and the dependent variable (Y), namely students' learning interests consisting of research data obtained using a research questionnaire instrument that had previously been tested on fourth-grade students of SDN Katulampa 1 Bogor city.

Table 1. Statistical Data of Research Results

Statistical Elements	Variable X	Variable Y
Valid	30	24
Highest Score	108	96
Lowest Score	73	42
Score Range	35	54
Mean	89.6	76.2
Median	90	79
Mode	89	86
Sample Variance	57.86	212.2
Standard Deviation	7.60	14.5

Total Score	4391	3733
Number of Respondents	49	49
Many Classes	7	7
Class Length	5	8

From the table above it can be seen that the highest score is 108, the lowest score is 73, the score range is 35, the mean 89.6, the median 90, the mode 89, the sample variance is 57.86, the standard deviation is 7.60, the total score is 4391, with the number of respondents 49 students, many 7th grades and class length 5. While the variable Y has several valid

questions of 24 items, the highest score is 96, the lowest score is 42, the score range is 54, the mean 7 is 6.2, the median is 79, the modus is 86, the sample variance is 212.2, the standard deviation is 14.5, with the number of respondents was 49 students, many were 7th grade and 8th grade.

Table 2. Distribution of Frequency Data Student's learning interest

Interval Class	Class Limits	Score Middle (X_1)	Absolute F	Relative F (%)	F. X_1
42 - 49	41.5 - 49.5	45.5	2	4	91
50 - 57	49.5 - 57.5	53.5	4	8.2	214
58 -65	57.5 - 65.5	61.5	5	10.2	307.5
66 - 73	65.5 - 73.5	69.5	7	14.3	486.5
74 - 81	73.5 - 81.5	77.5	9	18.4	697.5
82 - 89	81.5 - 89.5	85.5	12	24.5	1026
90 - 97	89.5 - 97.5	93.5	10	20.4	935
Amount	-	-	49	100%	3757.5

From the frequency table 2 it can be seen that the scores in the range 4 2 - 49 are 2 students with a percentage of 4%, the range 5 0 - 57 is 4 students with a percentage of 8.2%, the range 58-65 is 5 students with a percentage of 10.2 %, the range 66-73 was 7 students with a percentage of 14.3%, the range 74-81 was 9

students with a percentage of 18.4%, the range 82-89 was 12 students with a percentage of 24.5%, the range 90-97 was 10 students with a percentage of 20.4%.
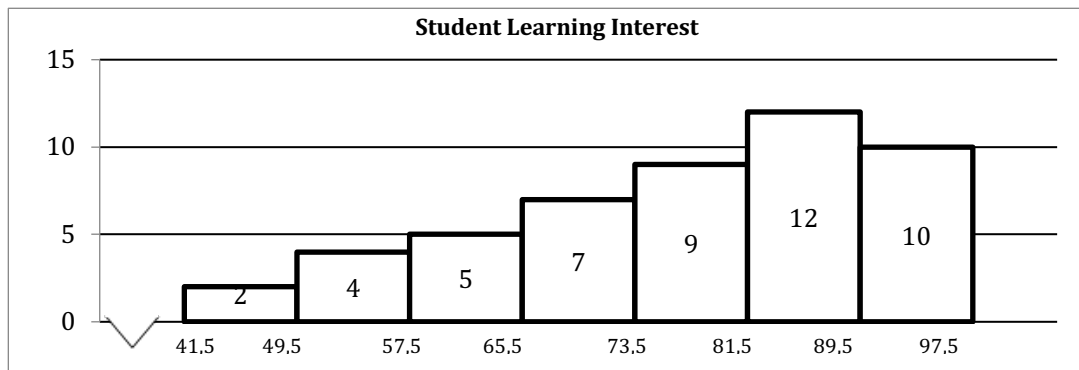

Figure 2. Histogram Diagram of Student Learning Interest Data (X)

Based on the histogram diagram above, it can be explained that the highest number of frequencies is in the value range 108-113 by 11 students (25%), and the lowest frequency is in the 90-95 value range as many as 2 students (4.55%).

Table 3. Summary of the Variable (X) and (Y) Normality Test

No.	Estimated Default Error	L_{count}	L_{table}	Conclusion
1.	Variable X and Y	0.103	0.134	Normal
	Normal terms $L_{count} < L_{table}$			

Based on the results of the calculation of the answer to the questionnaire for the snake and ladder learning media variable consisting of 30 statements with 49 respondents, the following results were obtained: the total score was 4391, the highest score was 108 and the lowest score was 73, thus the score range was 35, the average score was 89, 6, the mean score of 90, the most frequent score is 89, the sample variant value is 57.86 with a standard deviation of 7.60.

From this data, 7 class intervals can be obtained with a class length of 5. The first interval starts from 73-77, the second class starts from 78-82, the third class starts from 83-87, the fourth class starts from 88-92, the fifth class starting from 93-97, sixth grade starting from 98-102, seventh grade starting from 103-108. The data described above is poured into a frequency distribution table and histogram. The frequency table and histogram data for the snake and ladder learning media variables are as follows:

Table 4. Frequency Distribution of Learning Media for Snakes and Ladders (X)

Interval Class	Class Limits	Score Middle (X1)	Absolute F	Relative F (%)	F.X1
73 - 77	72.5 - 77.5	75	4	8.2	300
78 - 82	77.5 - 82.5	80	4	8.2	320
83 - 87	82.5 - 87.5	85	11	22.4	935
88 - 92	87.5 - 91.5	90	12	24.5	1080
93 - 97	92.5 - 97.5	95	11	22.4	1045
98 - 102	97.5 - 102.5	100	6	12.2	600
103- 108	102.5 108.5	105.5	1	2.1	105.5
Amount	-	-	49	100%	4385.5

From the frequency table above, it can be seen that the scores in the range 73 - 77 are 4 students with a percentage of 8.2%, the range 78 - 82 is 4 students with a percentage of 8.2%, the range 83-87 is 11 students with a percentage of 22.4 %, the range 88-92 was 12 students with a percentage of 24.5%, the range 93-97 was 11 students with a percentage of 22.4%, the range 98-102 was 6 students with a percentage of 12.2%, the range 103-108 was 1 student with a percentage of 2.1%. The frequency distribution of the results can be seen in the histogram below:
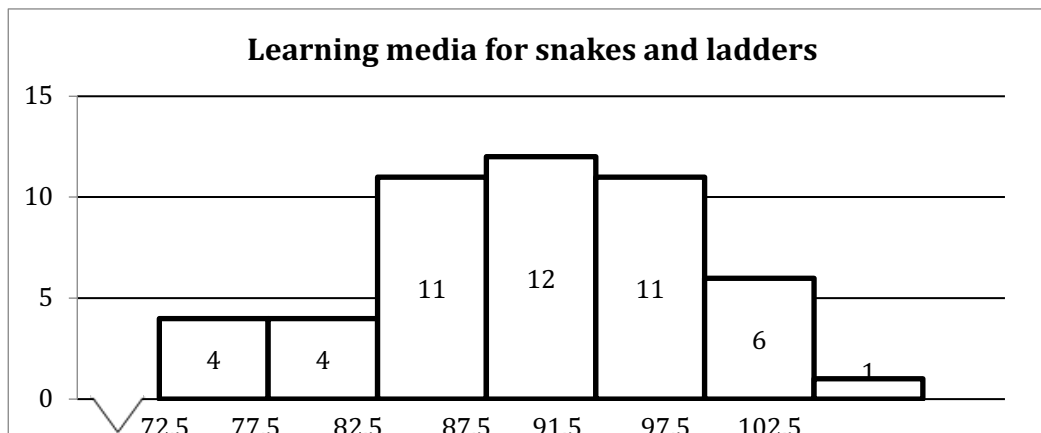
Learning media for snakes and ladders

Figure 3. Histogram Diagram of the Frequency Distribution of Research in learning media for snakes and ladders

Based on the histogram graphic above, it can be explained that the highest frequency is in the interval class 88-92, while the lowest frequency is in the interval class 103-108.

Estimated Standard Error Normality Test

Testing for normality of the estimated standard error is carried out to determine whether or not a data distribution is normal, to test for normality using the Lilliefors test on student learning interest variables (Y) and learning media for snakes and ladders (X) with the condition that if $H_o = L_{count} > L_{table}$, it means error the standard estimate is not normal and if $H_o = L_{count} < L_{table}$ then the standard error is normal.

Table 5. Summary of Data Normality Test Student's learning interest (Y) and learning media for snake and ladder (X)

Estimated Default Error	L_{count}	L_{table}	Conclusion
Variables X and Y	0.0 62173	0.12 6571	Normal
Normal terms $L_{count} < L_{table}$			

Based on the normality test using Lilliefors, it was found that $L_{count} = 0.0\ 62173$. This price is compared with the price of $L_{table} = 0.126571$. Then the distribution of learning media data for snake and ladder (X) with student learning interest (Y) is normal.

Homogeneity Test of Variance

Homogeneity testing is carried out to determine whether the population is homogeneous or not. The homogeneity test was performed using *Fisher's exact* test using the largest variance compared to the smallest variance. Based on the results of the calculation of the homogeneity test of learning media data for snakes and ladders with student learning interest, it was obtained F_{count} 1,91 and F_{table} 4.04. Where if $F_{count} < F_{table}$, means homogeneous. $F_{count} > F_{table}$, meaning not homogeneous. Because $F_{count} < F_{table}$ means the data used is homogeneous. For more details, see the table below:

Table 6. Results of the Variable Homogeneity Test for Student's Learning Interest (Y) and snake and ladder learning media (X)

Variants Tested	F$_{count}$	F$_{table}$	Conclusion
Variables X and Y	1,91	4.04	Homogeneous
Normal terms F$_{count}$ <F$_{table}$			

Research Hypothesis Testing

In this study, there are two hypotheses tested through statistical methods in the form of regression and correlation tests. The data tested was based on statistical calculations assisted by Ms. Excel which consists of learning media data for snakes and ladders (X) and student learning interests (Y). The data are declared normal and homogeneous, the next step is to test the hypothesis. Hypothesis testing is intended to determine whether the null hypothesis (Ho) that will be continued is accepted or rejected at the confidence stage = 0.05 or 5%.

Simple Linear Regression Analysis, namely the linear relationship between the X variable and the Y variable. This analysis aims to clarify the relationship between the snake and ladder learning media variable (X) on student learning interest (Y) which is based on the results of the calculation of the significance test and expressed in the form of a regression equation, namely $\hat{Y} = a + bx$. The relationship between X and Y is presented in form $\hat{Y} = -58.23 + 1.5X$, meaning that every increase of one unit of snake and ladder learning media will increase students' interest in learning by 1.5 units, where X is significant, it can be seen in the following scatter diagram:

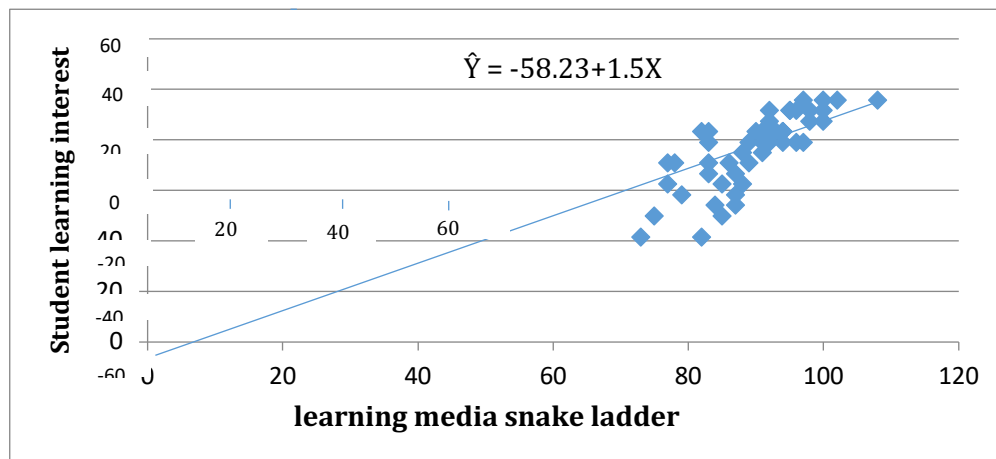**Simple Linear Regression Analysis**

Figure 4. Diagram Pencar learning media snake ladder (X) towards student learning interest (Y)

By the results of the calculation of the regression equation analysis in the scatter diagram image above, shows a correlation that there is a positive relationship between the snake and ladder learning media variable with students' learning interest. The truth of the regression results above is used to test the hypothesis about whether or not there is a positive relationship between the learning media variable snake and ladder (X) and student learning interest (Y).

Significance Test of Regression

The regression significance test is used to determine whether variable X has a significant effect on variable Y, provided that the hypothesis is tested if F$_{count}$ >F$_{table}$. So, it can be seen in the following table.

Table 7. ANOVA Calculation Results for Significance Test The learning media variable snake and ladder (X) with student learning interest (Y)

Source Variant	Dk (df)	JK	RJK	F_{count}	F_{table}		Conclusion
					0.05	0.01	
Total	49	294583	12023,7958				
Regression (a)	1	284393,653	284393,653	**	4.0 5	7.21	Very
Regression (b / a)	1	6285,735	6285,735	75.68			significant
Residue	47		83.05				

Information:
dk = degrees of freedom
JK = sum of squares of errors
RJK = average number of squares of errors
Based on the results of the calculation of the regression significance test obtained F_{count} = 7 5.68 while F_{table} ($a = 0,05$)= 4.0 5 and F_{table} (= 7,21. Thus the influence between the snake and ladder learning media with student learning interest with the regression equation $\hat{Y}$ = - 58,23 + 1.5X is very significant.

Regression Linearity Test

The regression linearity test aims to determine whether the X and Y variables have a linear or not significant relationship. For testing the null hypothesis (H_o) is rejected if the linear regression hypothesis $F_{count} < F_{table}$ means that H_a is accepted. The results of the regression linearity test can be seen in the table below:

Table 8. Summary of Variable Linearity Test for Learning Media for Snakes and Ladders (X) with student learning interest (Y)

Source Variant	Dk (df)	JK	RJK	F_{count}	F_{table}		Conclusion
					0.05	0.01	
Total	49	294583	12023,7958				
Tuna is Suitable	23	-	-12376,847	- 1.02 Ns	2.02	2.74	Linear
Error	24	284667.49					
		288571.1					

Information:
dk = degrees of freedom
JK = sum of squares of errors
RJK = average number of squares of errors

So, based on the regression linearity test of learning media snake and ladder (X) with student learning interest (Y), t_{count} F $_{value}$ = - 1.02, while F_{table} (a = 0, 05) = 1.99 and F $_{table}$ (a = 0.01) = 2.74 with dk numerator (K-2) = 23 and dk denominator (NK) = 24. Thus, F $_{count}$ <F $_{table}$ (a = 0.05) that is -1.02 <1.99 means that the linear hypothesis is accepted. This means that the snake and ladder learning media data and

student interest in learning has a linear relationship pattern.

Correlation Coefficient Test

The strength of the relationship between the snake and ladder learning media variable (X) with students' interest in learning (Y) is shown by the calculation of the correlation coefficient r_{xy} = 0.78. The coefficient value when consulted with the interpretation table is in the interval from 0.600 to 0.799, which means that the level of the relationship is strong. Based on the value of the correlation

coefficient r_{xy} = 0.78 is in the interval 0.600 - 0.799, which means the relationship is strong.

Calculation of the coefficient of determination

Based on the results of the calculation of the correlation coefficient (r_{xy}) at 0,78, the obtained value of r^2 = 0,60 with the coefficient of determination 60%, of the data can be formulated that learning media snake ladder can play a role by contributing 60% towards interest student learning. Meanwhile, 40% of students' interest in learning is influenced by other factors.

Statistical Hypothesis Testing (H₀ and Hₐ)

To determine H_o and H_a, which in principle is to test the characteristics of the population based on information received from a sample, then statistical hypothesis testing is used which will be calculated from the results of the correlation coefficient test, where the relationship between the learning media variable of snake and ladder (X) with student learning interest (Y) is stated with the conditions:

H_o: μ = 0; there is no relationship between the snake and ladder learning media (X) with students' interest in learning (Y)

H_a: μ ≠ 0; there is a relationship between the snake and ladder learning media (X) with students' interest in learning (Y)

Based on the results of the calculation of the correlation coefficient test, it is obtained t_{count} = 8.480 at the correlation coefficient of 5% t_{table} = 1.6 76 it can be stated that t_{count} = 8.480>t_{table} = 1.676 thus t_{count} 8.480 > t_{table} 1, 676 so that the $H_{0\ region}$ is in the interval -1,6 76 to 1,676. Where if: H_0 is accepted if the value of t_{count} at the interval -1,6 76 to 1,676. H_0 is rejected if the value of t_{value} does not lie in the interval (-1.6 76) up to 1,676.

Based on calculations acceptance of H_0 t_{count} 8.480>ttable 1.676 indicating Ha accepted which means coefficient instructional media snake ladder (X) with student interest (Y) is significant, so it can be concluded that there is a positive relationship and There is a significant difference between the snake and ladder learning media (X) and students' interest in learning (Y).

The research, which was conducted on fourth-grade students of SDN Katulampa 1 Bogor City, was carried out by using a questionnaire data collection technique for learning media variables for snakes and ladders (X) and learning interest variables (Y).

The relationship of the snake and ladder learning media with the interest in learning by statistical analysis is shown by the results of the significance test and regression with the regression equation $\hat{Y}$ = -58.23 + 1.5x. This indicates that every increase of one unit of the snake and ladder learning media variable contributes to the interest in learning by 1.5 units.

The effect of using learning media on interest in learning is very significant, this shows that the use of learning media for snakes and ladders has benefits:

1. Providing knowledge to children through the process of learning to play while learning.
2. Stimulate the development of thinking power, creativity, and language to be able to foster good attitudes, mentality, and morals.
3. Creating an attractive play environment provides a sense of security and is fun.
4. Recognize lose and win.
5. Learn to cooperate and wait their turn.
(Ratnaningsih, 2014)

Student interest is a sense of interest and curiosity of students through the learning process is ongoing. (Sundari & Purwanto, 2017). The use of snake and ladder learning media greatly influences the interest in learning, because the snake and ladder learning media involve an element of play in it.

according to Salam (2019) Learning while playing is something that students like so that it allows students to be actively involved in learning.

CONCLUSION

Based on the results of data analysis, hypothesis testing, and discussion of research results, it can be concluded that there is a positive and significant influence between the snake and ladder learning media on student interest in learning. The strength of the relationship between the use of snake and ladder learning media with learning interest is indicated by the correlation coefficient (r_{xy}) of 0.88. Coefficient indicates that there is a strong influence of the variable of learning media snake ladder with student interest. The contribution of learning media for snakes and ladders with interest in learning is shown by the coefficient (r^2) of 0,60 with a coefficient of determination of 6 0%. This indicates that the increase or decrease in student interest in learning is related to learning media for snake and ladder by 60% while the remaining 40% is influenced by other factors.

ACKNOWLEDGMENTS

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