The Effect of Problem Based Learning Model Aided by Animation Media on Interests and Learning Outcomes of Class V Elementary School Social Sciences

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Abstract

This research aims to find out the influence of problem based learning model assisted by animation media on students' learning interests and social learning outcomes of class V in state Elementary School 3 Connect Java Pangkep Regency. The type of research was Quasi Experimental Design using nonequivalent control group design, this study applied saturated sample of 40 students with 2 classes as control classes and experimental classes. The data was analyzed using SPSS 21.0. Data collection in order to get the students' learning results was obtained by using pretest and posttest and to get the results of students' learning interest obtained by using questionnaires. The results of descriptive analysis in terms of interest and learning results of experimental classes were higher than the control class. in addition, there is a gap in the control class where the interest in learning is not balanced with the learning outcomes. Then on Manove-test obtained a significance of 0.000. This significance value was less than 0.05, which mean there was an influence of problem based learning models assisted by animation media simultaneously on interest and learning outcomes. Based on the results of this study, it can be concluded that there was an influence of problem based learning assisted by animation media on the students' interests and learning outcomes of social science students of class V in State Elementary School 3 Connect Jawa Pangkep Regency. which mean there was an influence of problem based learning models assisted by animation media simultaneously on interest and learning outcomes. Based on the results of this study, it can be concluded that there was an influence of problem based learning assisted by animation media on the students' interests and learning outcomes of social science students of class V in State Elementary School 3 Connect Jawa Pangkep Regency. which mean there was an influence of problem based learning models assisted by animation media simultaneously on interest and learning outcomes. Based on the results of this study, it can be concluded that there was an influence of problem based learning assisted by animation media on the students' interests and learning outcomes of social science students of class V in State Elementary School 3 Connect Jawa Pangkep Regency.

Keywords:problem based learning, animation media, learning outcomes, learning interests.

Abstract

This study aims to determine the effect of problem based learning learning model assisted by animation media on interest in learning, learning outcomes and its simultaneous use on the interests and learning outcomes of social studies students in class V SDN 3 Connect Jawa. The type of research used is a quasi-experimental design using a nonequivalent control group design, this study used a saturated sample of 40 students with 2 classes as the control class and the experimental class. The data from this study were analyzed using SPSS 21.0. Collecting data to obtain student learning outcomes tests were obtained by using pretest and posttest and to obtain student interest results obtained by using a questionnaire. The results of the descriptive analysis obtained showed that the interest and learning outcomes of the experimental class were higher than the control class. In addition, there is a gap in the control class where the interest in learning is not balanced with the learning outcomes. In the Manova test, a significance of 0.000 was obtained. This significance value is smaller than 0.05, which means that there is a simultaneous influence of problem based learning model assisted by animation media on interest and learning outcomes. Based on the results of this study, it can be concluded that there is an effect of the problem based learning model with the aid of animation media on the interest and learning outcomes of social science students in class V SDN 3 Connect Jawa, Pangkep district. there is a gap in the control class where the interest in learning is not balanced with the learning outcomes. In the Manova test, a significance of 0.000 was obtained. This significance value is smaller than 0.05, which means that

there is a simultaneous influence of problem based learning model assisted by animation media on interest and learning outcomes. Based on the results of this study, it can be concluded that there is an effect of the problem based learning model with the aid of animation media on the interest and learning outcomes of social science students in class V SDN 3 Connect Jawa, Pangkep district. there is a gap in the control class where the interest in learning is not balanced with the learning outcomes. In the Manova test, a significance of 0.000 was obtained. This significance value is smaller than 0.05, which means that there is a simultaneous influence of problem based learning model assisted by animation media on interest and learning outcomes. Based on the results of this study, it can be concluded that there is an effect of the problem based learning model with the aid of animation media on the interest and learning outcomes of social science students in class V SDN 3 Connect Jawa, Pangkep district. which means that there is an effect of the problem based learning model with the aid of animation media simultaneously on interest and learning outcomes. Based on the results of this study, it can be concluded that there is an effect of the problem based learning model with the aid of animation media on the interest and learning outcomes of social science students in class V SDN 3 Connect Jawa, Pangkep district. which means that there is an effect of the problem based learning model with the aid of animation media simultaneously on interest and learning outcomes. Based on the results of this study, it can be concluded that there is an effect of the problem based learning model with the aid of animation media on the interest and learning outcomes of social science students in class V SDN 3 Connect Jawa, Pangkep district.

Keywords:*Problem Based Learning*, animation media, learning outcomes, interest in learning

PRELIMINARY

Every child is born with their own potential. But sometimes, their potential is not honed properly or they don't even realize this potential. Education plays a role as a forum and a good means in the context of fostering and forming human resources so that every potential possessed by a child can be channeled properly so that quality human resources are formed.

so that it becomes a challenge for teachers to think about how to improve student learning outcomes, whether it is from learning models or varied learning methods so that students' attention can be refocused. One of the learning models that can be the answer to these problems is to use a problem based learning learning model with the help of animation media. This learning model can link learning with the environment around students and student-centered learning with the help of an animated media that can attract students' attention so that a meaningful learning process is formed, namely students can apply the values contained in social studies learning. One of the learning models that can be the answer to these problems is to use a problem based learning learning model with the help of animation media. This learning model can link learning with the environment around students and student-centered learning with the help of an animated media that can attract students' attention so

that a meaningful learning process is formed, namely students can apply the values contained in social studies learning. One of the learning models that can be the answer to these problems is to use a problem based learning learning model with the help of animation media. This learning model can link learning with the environment around students and student-centered learning with the help of an animated media that can attract students' attention so that a meaningful learning process is formed, namely students can apply the values contained in social studies learning.

*Problem based learning*is a model that provides independence to students in the learning process, namely independence in exploring their knowledge. In harmony with Harvest (in Rusmono 2012: 74), this problem-based learning model requires students to be able to identify problems, collect data, and then use the data in solving problems. The teacher's role in this case is as a facilitator who provides guidance, direction, and motivation to students (Abidin 2017: 6). This problem based learning learning model is in line with one of the learning theories, namely the constructivism learning theory, both of which focus on student activities rather than teacher activities, as well as training students to become independent thinkers. Suparlan (2019: 83), assumes constructivism as a process for students to develop their

knowledge through exercises, experiments and discussions with other students. This problem based learning learning model is in line with the meaning of Surat Ali-Imran (3): 190, which invites us to always think critically.

The contents of Surat Ali_Imran (3): 190, are as follows;

It means:

"So is he who knows that what God has revealed to you is the truth the same as a person who is blind? Only intelligent people can take lessons."

According to Mulyanto, et al., (2018: 37) problem-based learning is focused on problems where students can build their own knowledge, develop inquiry skills and think to a higher level. This student-centered learning model (student center) has many benefits, including trained students to always think critically, easier to remember because the learning process is more meaningful, understands the material being studied, indirectly students construct their knowledge, and will motivate students to study harder. In addition, the PBL model is a learning model that presents problems with topics from students' real lives so that it can encourage students to develop problem solving skills and deepen understanding of learning concepts, Handayani (2018: 167). In order to create an effective and efficient learning process, it starts from the planning, implementation and evaluation stages provided by the teacher during the learning process in a structured manner (Aqib, 2016: 66). This problem based learning learning model was chosen because it gives students flexibility in developing their knowledge and the learning process is not monotonous because learning is student-centred, let alone assisted by animated media which increasingly attracts students' attention and facilitates the learning process. Class V was chosen as the research subject because the material and learning are very suitable to be applied in class V.

Pangkep Regency itself, especially at SDN 3 Connect Jawa, the learning system was changed from what was originally implemented in the classroom and then switched to an online learning system. However, after observations were made, it was found that during this pandemic students' interest in learning decreased. This is what makes researchers embed animated videos as an alternative to increase student interest in learning. In addition, animation can also be processed according to needs, ranging from the shape, color, sound and movement needed, Munandar (in Khomaidah & Harjono, 2019). Thus, by applying the problem-based learning model assisted by animation media, it is expected to increase interest in learning as well as student learning outcomes.

This study aims to determine the effect of the problem based learning model with the aid of animation media on interest in learning, learning outcomes, and its simultaneous use on the interests and learning outcomes of social studies students in class V SDN 3 Connect Jawa.

RESEARCH METHODS

This research is a quantitative research. The research method used is an experimental method with a quasi-experimental research design, namely a research design that has a control group, but cannot function fully to control external variables that affect the implementation of the experiment, Sugiyono (2017:114).

*Quasi Experiment*This research design uses a pretest-posttest nonequivalent control group design. The reason for using the nonequivalent control group design is because in this design the experimental group and the control group were not chosen randomly (Ali & Asrori, 2014: 94).

Table 1
Nonequivalent Control Group Design

Sample	Pretest	Treatment	Posttest
Experiment	O1	x	O2
Control	O1		O2

Source: (Ali & Asrori, 2014: 94)
Information:
x = treatment/treatment
O1 = initial observation (pretest)
O2 = final observation (posttest) after treatment
O1 = initial observation (pretest)

O2 = final observation (posttest) without treatment

The population is an object or subject that has been determined to be researched and conclusions drawn, the object or subject has certain qualities and characteristics that have been determined by the researcher, (Sugiyono 2015: 80). This study uses a total sample, meaning that all of the population is sampled in this study, the samples taken are all students of Class V with a total of 40 students. According to Arikunto (2016), if the research subject is less than 100, then the research subjects are combined so that it becomes a population study. In this case, class VB will be used as the control group and class VA will be used as the experimental group.

Data collection techniques used by researchers to collect any information needed are through questionnaires, learning outcomes tests, and documentation. To find out whether there is an effect of applying the problem based learning model with the aid of animation media on the interest and learning outcomes of social science students in class V at SDN 3 Connect Jawa, a different test/t-test analysis was used (data analysis using SPSS 21.0 software for window). Before analyzing the hypothesis, a normality test and a homogeneity test were carried out which aims to see that the data has been normally distributed and homogeneous.

Hypothesis testing uses the manova test to measure the effect of independent variables on a categorical scale on several dependent variables at the same time on a quantitative scale. The results of this analysis assisted by the SPSS 21.0 for window program were carried out at a significant level less than 0.05.

The tool used to measure student interest in learning is to use Likert scale analysis. Likert is done if the researcher wants to measure the attitudes, opinions and perceptions of a person or group of people about social phenomena. After the data is collected, then it is processed using SPSS 21.0.

RESULTS AND DISCUSSION

To get data on students' interest in learning, the researchers used a questionnaire. Meanwhile, for social studies learning outcomes, researchers used pretest and posttest data. The data from the results of the questionnaire and pretest-posttest are as follows:

1. Student Interests

For data on student interest in learning, the researcher used a questionnaire consisting of 15 questions. The value of the student learning interest questionnaire was obtained after the control class and the experimental class were given treatment on social studies subjects. The results of descriptive analysis of student learning interest questionnaire score data are as follows:

a. Control Class

Table 2
Description of Student Interest in Class V (Control Class)

	Control Class Study Interest Results
N	20
Range	7
Minimum	44
Maximun	51
Sum	962
mean	48,10
Std. Deviation	2,382
Variance	5,674

After the student's interest in learning data is processed and then entered into the categorization of learning interest. The following is the categorization of learning interest in the control class.

Table 3
Categorization of Learning Interests in Control Class

No.	Value Range	Frequency	Percentage (%)	Category
1	<30	0	0	Low
2	30 - 41	0	0	Currently
3	42 - 47	6	30	Tall
4	>48	14	70	Very high
Amount		20	100	

b. Experiment Class

The data on the results of student interest in learning were obtained after the experimental class was given treatment using a problem based learning model with

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animated media. The data on the results of learning interest in learning are as follows:

Table 4
Description of Student Interest in Class V (Experimental Class)

	Control Class Study Interest Results
N	20
Range	12
Minimum	45
Maximun	57
Sum	1018
mean	50,90
Std. Deviation	2,808
Variance	7,884

After the student's interest in learning data is processed and then entered into the categorization of learning interest. The following is the categorization of learning interest in the experimental class.

Table 5
Categorization of Learning Interests in Experiment Class

No.	Value Range	Frequency	Percentage (%)	Category
1	<30	0	0	Low
2	30 - 41	0	0	Currently
3	42 - 47	2	10	Tall
4	>48	18	90	Very high
Amount	20	100		

Based on the scores from the collection of respondents from the control class and the experimental class, it was concluded that students' interest in learning using the problem based learning model with the aid of animation media was higher than using conventional methods.

2. Student Learning Outcomes
a. Control Class

The list of student learning completeness scores for the control class was processed to obtain the mean, standard deviation, and variance. The scores for the control class students' learning outcomes (pretest) are as follows:

Table 6
Control Class Student Learning Outcomes Score (Pretest)

	Control Class Study Interest Results
N	20
Range	26
Minimum	47
Maximun	73
Sum	1187

mean	59.35
Std. Deviation	8,041
Variance	64,661

Student learning outcomes data are then entered into the categorization of their learning outcomes as follows:

Table
7 Categorization of Learning Outcomes

No.	Value Range	Frequency	Percentage (%)	Category
1	0 - 50	3	15	Very less
2	51 - 74	17	85	Not enough
3	75 - 80	0	0	Enough
4	81 - 89	0	0	Well
5	90 - 100	0	0	Very good
Amount	20	100		

After knowing the pretest score of student learning outcomes in the control class, a posttest was then given to determine student understanding after receiving treatment with conventional learning methods.

Table 8
Control Class Student Learning Outcomes Score (Posttest)

	Control Class Study Interest Results
N	20
Range	20
Minimum	60
Maximun	80
Sum	1387
mean	69.35
Std. Deviation	6.523
Variance	42.555

Student learning outcomes data are then entered into the categorization of their learning outcomes as follows:

Table 9 Categorization of Learning Outcomes

No.	Value Range	Frequency	Percentage (%)	Category
1	0 - 50	0	0	Very less
2	51 - 74	17	85	Not enough
3	75 - 80	3	15	Enough
4	81 - 89	0	0	Well
5	90 - 100	0	0	Very good
Amount	20	100		

Based on the results of the data processing, it can be concluded that the categorization oflearning outcomes in the control class both on the pretest and posttest did not show any significant changes.

b. Experiment Class

The results of the completeness values that have been obtained are then processed to find out the average/mean, standard deviation, and variance. The following is the pretest score of

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the experimental class students' learning outcomes.

Table 10
Experimental Class Student Learning Outcomes Score (Pretest)

	Learning Interest Results Control Class
N	20
Range	54
Minimum	33
Maximun	87
Sum	1321
mean	66.05
Std. Deviation	15,773
Variance	248,787

Student learning outcomes data are then entered into the categorization of their learning outcomes as follows:

Table 11
Categorization of Learning Outcomesr

No.	Value Range	Frequency	Percentage (%)	Category
1	0 – 50	4	20	Very less
2	51 – 74	9	45	Not enough
3	75 – 80	7	35	Enough
4	81 – 89	0	0	Well
5	90 – 100	0	0	Very good
Amount	20	100		

After knowing the pretest score of student learning outcomes in the control class, a posttest was then given with the following results:

Table 12
Experimental Class Student Learning Outcomes Score (Posttest)

	Control Class Study Interest Results
N	20
Range	26
Minimum	67
Maximun	93
Sum	1607
mean	80.35
Std. Deviation	7,659
Variance	58,661

From table 4.11, the maximum score = 93, minimum score = 67, average/mean = 80.35, standard deviation = 15.77, and variance = 58.661. If it is included in the categorization of interest in learning, it is obtained as follows:

Table 13
Categorization of Learning Outcomes

No.	Value Range	Frequency	Percentage (%)	Category
1	0 - 50	0	0	Very less
2	51 - 74	6	30	Not enough
3	75 - 80	7	35	Enough
4	81 - 89	5	25	Well
5	90 - 100	2	10	Very good
Amount	20	100		

Based on the results of data processing in table 13, conclusions can be drawnthat the categorization of learning outcomes in the experimental class in both the pretest and posttest showed a significant change.

3. Normality test

Before testing the hypothesis, the researcher will test the data on student interest and learning outcomes by using the normality test to determine whether the data to be analyzed is normally distributed or not. In this study, researchers used the Kolmogorov-Smirnov normality test technique with the help of SPSS. The results show that the distribution of the variables in this study is normally distributed. This shows that the data is feasible to use.

4. Hypothesis testing

In this study, to determine the effect of the problem-based learning model assisted by animation media on interest in learning, an independent t-test can be performed and obtained a significance of 0.002. This significance value is smaller than 0.05, so it can be concluded that there is an effect of problem based learning learning model assisted by animation media on learning interest.

In learning outcomes using independent t-test, obtained a significance of 0.000. This significance value is smaller than 0.05, so it can be concluded that there is an effect of problem based learning learning model assisted by animation media on learning outcomes. multivariate test.

Table 14
Multivariate Test

Effect		Value	F	Hypot hesis df	df error	Sig.	nonce nt. Param eter	Obse rved Pow erc
Intercept	Pillai's Trace	,997	7055, 292b	2,000	37,0 00	,00 0	14110 ,583	1,00 0
	Wilks' Lambda	,003	7055, 292b	2,000	37,0 00	,00 0	14110 ,583	1,00 0
	Hotelling's Trace	381.367	7055, 292b	2,000	37,0 00	,00 0	14110 ,583	1,00 0
	Roy's Largest Root	381.367	7055, 292b	2,000	37,0 00	,00 0	14110 ,583	1,00 0
Problem Based Learning learning model assisted by animatio n media	Pillai's Trace	,390	11,83 0b	2,000	37,0 00	,00 0	23,66 1	,991
	Wilks' Lambda	,610	11,83 0b	2,000	37,0 00	,00 0	23,66 1	,991
	Hotelling's Trace	,639	11,83 0b	2,000	37,0 00	,00 0	23,66 1	,991
	Roy's Largest Root	,639	11,83 0b	2,000	37,0 00	,00 0	23,66 1	,991

Based on the test in the Manova test table in table 14, it is obtained that the significance of the line 'problem based learning model assisted by animation media' is 0.000. This significance value is smaller than 0.05, so it can be concluded that there is an effect of the simultaneous use of problem based learning learning models assisted by animation media on interest and learning outcomes.

In the control class, there is a gap, namely the results of interest in learning and learning outcomes. Interest in learning in the control class is in the fairly good category but inversely proportional to the learning outcomes that are not good, namely in the posttest there are only 3 students who complete the learning outcomes, the rest are still incomplete. These findings contradict the theory of Slameto, (2010: 180), which states that when a person is interested in something without coercion, then no matter how difficult the conditions experienced by that person will not be easy to give up and get bored. This happens due to several factors including good student interest in learning but in the process students still have difficulty understanding the material, the way the teacher communicates the material and the involvement of students in learning so that this gap occurs.

In contrast to the control class which has a gap between interest and learning outcomes, in this experimental class student interest in learning and student learning outcomes can be

said that student interest in learning plays a significant role in student learning outcomes, in the experimental class student interest is in the very high category of 90% with completeness of student learning outcomes of 70%, in the control class student interest is in the very high category of 70% with completeness of student learning outcomes of only 15%. One of the supporting factors for increasing student learning outcomes using the problem based learning model according to Fhaturrohman, (2016: 115), is because in the problem based learning model, students are given the confidence to study independently so that they can explore their knowledge.

The findings obtained by researchers using a problem-based learning model assisted by animation media can increase student interest and learning outcomes. This model trains students to think critically independently and is supported by interesting learning media so that they can give a meaningful impression to students. In accordance with Fadillah (2020: 1457), showing that using a problem-based learning model assisted by animation media can attract student interest and learning outcomes, where learning refers to a problem-solving process which then becomes the focus of learning that can be completed by students through group work or group work. individuals so as to provide a varied learning experience. Besides that,

CONCLUSION

Based on the results of research that has been carried out regarding the effect of using problem based learning learning models assisted by animation media, it can be concluded that the learning interest of students in the experimental class and control class is included in the very high category but on learning outcomes, the control class experiences a gap between interest and results. study. This is caused by several factors including good student interest in learning but in the process students still have difficulty understanding the material, the way the teacher communicates the material and student involvement. In the experimental

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class there is a match between interest in learning and learning outcomes, where interest in learning is in the high category with learning outcomes increasing from 35% to 75% completeness level.

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