

The Effect of Inquiry Learning Model Assisted by Video Media on Learning Outcomes of Fourth Grade Students Theme 7 Subtheme 1 Learning 3 at SDN Curahpoh 01 Bondowoso

Aprida Sayekti¹, Chumi Zahroul F¹, Dyah Ayu Puspitaningrum¹

¹ PGSD Study Program, University of Jember, Indonesia

Apridasayekti03@gmail.com, chumizahroul@gmail.com, dyahayu.fkip@unej.ac.id

Abstract: *The background of this research is to improve the quality of human resources in the learning process, especially on theme 7 subtheme 1 learning 3 by applying the inquiry learning model assisted by video media to the learning outcomes of grade IV students at SDN Curahpoh 01 Bondowoso. This study used a type of pseudo-experimental research with a non-equivalent control group design. The research sample amounted to 42 students from class IVA and IVB SDN Curahpoh 01 Bondowoso, then divided into experimental and control classes. Test results were used in the main data collection. After complete data collection, then the data was analyzed by independent sample t-test using the SPSS vers 21 program. The results obtained were $t_{count} 5.273$. It is known that the degree of freedom (db) = 40 at a significant level of 5%, so that the t_{table} value = 2.021 is obtained. Thus the t_{count} value of $5.273 > t_{table} = 2.021$ means that the alternative hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected. The results of the relative effectiveness test (ER) obtained 65.2% with a high effectiveness category indicate that there is an effect of the video media-assisted inquiry learning model on the learning outcomes of fourth grade students in theme 7 subtheme 1 learning 3 at SDN Curahpoh 01 Bondowoso.*

Keywords: inquiry learning model, learning outcomes, and experimental research.

1. Introduction

Self-development can be done through education directly or indirectly. Education is a source of activities to gain knowledge as a whole. Through education, humans can be educated and obtain mental, physical, emotional, social, ethical, and spiritual development, so that it can lead to maturity and maturity properly. Education does not only lead to intelligence in science but students are able to solve the problems faced. Educating students or children of the nation can improve the quality of good human resources (HR) so that an education system and professional teachers are needed and producing quality human resources will be a benchmark for the progress of a country.

The process of learning activities has several components that are interconnected in achieving learning goals, including; teaching materials, learning methods / strategies, learning models, learning tools / media, learning resources, evaluation results, teachers and students. An important role in education lies with the teacher in fostering and developing students' abilities. In addition, learning models and methods are always used by teachers in teaching because they focus on students. Learning methods and models are useful in the learning process. Students can be more enthusiastic in the process of receiving knowledge or learning (Andrianti, 2017: 1-5).

Education units carry out learning plans, implementation of learning activities, and assessment of the learning process in increasing effectiveness and efficiency in order to achieve the graduate competency standards (SKL). Learning activities in education units are carried out in an inspiring, interactive, creative, motivating, fun, and independent manner in accordance with the physical, psychological development, interests, and talents of students. Learning is adjusted to the SKL consisting of the domains of attitudes, knowledge and skills for each education unit.

The implementation of the 2013 curriculum in Indonesia is based on thematic learning. Thematic learning is learning that uses themes to connect other subjects. So on one theme there are several other subjects such as Indonesian language, social science (IPS), Pancasila and civic education (PPKn), cultural arts and crafts (SBdP), natural science (IPA), and mathematics. Teachers as the main factor in the successful implementation of the 2013 curriculum, teachers' understanding of the 2013 curriculum, and the appropriate classroom management process 2013 curriculum. This goes back to the ability and willingness of teachers to adapt to the 2013 curriculum. If teachers continue to apply previous teaching habits, the active role of students is limited, of course the implementation of the 2013 curriculum is difficult to achieve. However, in the 2013 curriculum student activeness is increased in learning activities and the teacher as a facilitator.

Theme 7 the beauty of togetherness in my country subtheme 1 the diversity of ethnicities and religions in my country learning 3 contains several subjects namely Indonesian language, social studies, and civics. Learning materials about islands and regional conditions in Indonesia, ethnic diversity in Indonesia, and digging up information about ethnic groups. Teachers can use several

learning models to help implement the 2013 curriculum. The 2013 curriculum can use models including inquiry learning models, problem-based learning models, project-based learning models, and experience-based learning models (Fathurrohman, 2015: 180).

This is in accordance with Permendikbud Number 21 of 2016 to improve integrated thematic learning in a subject, a learning model is applied. According to Meidawati (in Safitri and Budhi, 2017: 10), the inquiry learning model is a model that focuses on providing experience to students. The inquiry model has a target that prioritizes students with learning activities that involve students in logical and directed learning activities, developing a confident attitude, and structured learning objectives. This means that the inquiry model is to increase student activeness in learning by finding their own knowledge.

The results of interview conducted on April 19, 2021 with the class teacher IVA and IVB at SDN Curahpoh 1 Bondowoso can be seen in learning activities using lecture, discussion, question and answer, and assignment methods. The media used in learning activities such as image media or objects in the school. The results of interviews with IVA and IVB class teachers still apply the habit of teachers being more active than students. Of course this is an obstacle in achieving the implementation of the 2013 curriculum where students find it difficult to understand the material, limited student activeness, and makes students easily bored. The results of interviews with IVA and IVB class teachers in learning teachers have never applied the inquiry model. Based on the results of the interviews described above, it can be seen that there are problems in learning in class IV SDN Curahpoh 1 Bondowoso, it should be able to design learning activities so that students are more active in learning activities and receive subject matter well.

The results of interviews conducted on April 19, 2021 with several students in grades IVA and IVB at SDN Curahpoh 1 Bondowoso showed that students were happy with thematic learning, but some students had difficulty in accepting the subject matter because of the teacher's usual way of teaching, lecturing and using image media. In addition, there are several obstacles such as classes that are not conducive, a lot of material and less fun, making students feel bored in participating in learning.

Based on the description above, the application of the inquiry learning model is expected to affect the learning outcomes of students in theme 7 subtheme 1 learning 3, so it is necessary to conduct a learning research entitled "The Effect of Inquiry Learning Model Assisted by Learning Video Media on Learning Outcomes of Grade IV Students Theme 7 Subtheme 1 Learning 3 at SDN Curahpoh 01 Kab. Bondowoso".

2. Research Methods

The research was conducted at SDN Curahpoh 01 Bondowoso in the even semester of the 2021/2022 academic year. The research subjects were 42 students from class IVA and IVB. This study uses a type of pseudo-experimental research using a Non-Equivalent Control Group design or pattern. The homogeneity test is used to measure the initial ability of students before determining the experimental group and control group by pretest (Masyhud, 2016: 165). The data used as a homogeneity test is the UTS results from classes IVA and IVB.

The results of the homogeneity test, it is known that the significant value of $t < 0.05$ of 0.364 shows smaller than 0.05 or $0.364 < 0.05$ at a significant level of 5% so that it is declared homogeneous or the same between the two groups. Determination of experimental and control classes using lottery techniques. The results of the lottery showed that class IVA as the experimental class and class IVB as the control class.

Independent variables and dependent variables in this study. The inquiry learning model with video media is the independent variable. Learning outcomes of fourth grade students theme 7 subtheme 1 learning 3 is the dependent variable. Data collection methods as research materials are observation, interviews, documentation, and tests.

The validity test and reliability test were carried out before the test instrument was used. The test instrument consists of 40 multiple choice questions which were previously validated from lecturers and fourth grade teachers of SDN Curahpoh 01 Bondowoso to measure whether each question is valid or not. to calculate the feasibility value of the test instrument using the following formula.

$$Valpro = \frac{srt}{smt} \times 100$$

Description:

Valpro = Instrument Validity

Srt. = Real score achieved

Smt. = Maximum score that can be achieved

The calculation result is 88.0, then the test instrument is declared "very feasible". Test the test instrument on 34 fourth grade students by scoring the correct answer 1 and the wrong answer 0. Then the data is calculated using SPSS version 21 with the results of 38 valid questions and 2 invalid questions. Calculation of instrument reliability test. The data is divided into odd and even parts. Calculation of correlation using the following formula.

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}$$

Description:

r_{xy} : correlation coefficient of odd and even item scores

X : odd item score

Y : even item score

N : number of samples (Masyhud, 2016)

The correlation result of odd and even values is 0.992. The correlation result on the r- table with a significance level of 5% is 0.339. The correlation value is higher than the r-table ($0.992 > 0.339$), then the question is declared reliable. Then the correlation results were tested and analyzed again with the Split-half formula, as follows.

$$R_{11} = \frac{2 \times r_{xy \text{ split half}}}{1 + r_{xy \text{ split half}}}$$

Description:

r_{11} = Instrument reliability

$r_{1/2|1/2}$ = r_{xy} which mentioned as index correlation index between two. (Masyhud. 2014:302)

The results of the reliability coefficient above obtained the result of 0.995. Judging from the table of interpretation of the test reliability test results, the value of 0.995 is included in the very high reliability category.

Data analysis techniques used Independent sample t-test test for separate samples. The formula for calculating the independent sample t-test test is as follows (Sulthon. 2016: p. 382).

$$t = \frac{M_2 - M_1}{\sqrt{\frac{\sum x_1^2 + \sum x_2^2}{N(N-1)}}}$$

Description:

M_1 = Mean value of experimental group

M_2 = Mean value of control group

X_1 = Devian of each x_1 value from the average x_1

X_2 = Devian of each x_2 value from the average x_2

N = Number of research samples

Furthermore, to determine the level of relative effectiveness on student learning outcomes using the inquiry learning model or ordinary learning. It needs to be calculated using the following formula.

$$ER = \frac{MX_2 - MX_1}{\left(\frac{MX_1 + MX_2}{2}\right)} \times 100\%$$

Description:

ER = The relative effectiveness of the experimental group treatment compared to the control group treatment

MX_1 = Mean / average score in the control group

MX_2 = Mean / average score in the experimental group

3. Results and Discussion

This research was conducted at SDN Curahpoh 01 Bondowoso. The research subjects amounted to 42 students consisting of class IVA totaling 21 students and class IVB totaling 21 students. this research is to conduct a homogeneity test with the help of SPSS version 21 using the Midterm Exam (UTS) scores of class IVA and class IVB. The calculation results obtained 0.364 showed smaller than 0.05 or $0.364 < 0.05$ at a significant level of 5% so that it was declared homogeneous from both classes. The next step determines the experimental class and control class using lottery technique. The results of the lottery showed that class IVA as the experimental class and class IVB as the control class. Furthermore, a pretest was given to both classes.

The results of learning activities show that the average pretest score is 58.42 and posttest 73.42 difference 15 in the experimental class (class IVA), and the average value of pretest 51.19 and posttest 58.90 difference 7.61 in the control class (class IVB).

Tabel 4.1 Pretest and Posttest Data Experimental Class and Control Class

Absence No.	Experimental Class			Control Class		
	Pretest	Posttest	Difference	Pretest	Posttest	Difference
1	63	80	17	58	68	10
2	68	88	20	55	58	3
3	55	68	13	55	68	13
4	58	70	12	53	60	7
5	63	75	12	40	53	13
6	68	83	15	55	68	13
7	70	75	5	48	55	7
8	58	68	10	53	65	12
9	55	78	23	45	50	5
10	55	65	10	55	58	3
11	70	80	10	33	48	15
12	50	70	20	55	58	3
13	58	83	25	55	63	8
14	60	75	15	55	58	3
15	55	70	15	55	63	8
16	55	70	15	56	58	2
17	50	70	20	53	58	3
18	58	70	12	40	50	10
19	55	68	13	58	60	2
20	50	68	18	40	50	10
21	53	68	15	58	68	10
Jumlah	1227	1542	315	1075	1237	160
Rata-Rata	58,42	73,42	15	51,19	58,90	7,61

Furthermore, analyze the data by calculating the difference between the pretest and posttest of the two classes. Calculation of the t-test using SPSS version 21.

Tabel 4.3 Data Calculation of t-test Using SPSS Version 21.

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Learning Outcomes	Experiment Group	21	15.000	4.8062	1.0488
	Control Group	21	7.619	4.2482	.9270

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Learning Outcomes	Equal variances assumed	.001	.982	5.273	40	.000	7.3810	1.3998	4.5519	10.2100
	Equal variances not assumed			5.273	39.406	.000	7.3810	1.3998	4.5505	10.2114

Based on the results above, the tcount result is 5.273. Known degrees of freedom (db) = 40 at a significant level of 5%, so that the ttable value = 2.021 is obtained. Thus the tcount value of 5.273 > ttable = 2.021 means that the alternative hypothesis (Ha) is accepted and the null hypothesis (H0) is rejected, so the alternative hypothesis (Ha) "there is an effect of the inquiry learning model assisted by video media on the learning outcomes of students in grade IV theme 7 subtheme 1 learning 3 at SDN Curahpoh 01 Bondowoso" is accepted. While the null hypothesis (H0) "there is no effect of inquiry learning model assisted by video media on the learning outcomes of fourth grade students of theme 7 subtheme 1 learning 3 at SDN Curahpoh

01 bondowoso" is rejected. This shows that there is a significant influence by applying the inquiry learning model assisted by video media on the learning outcomes of fourth grade students of theme 7 subtheme 1 learning 3 at SDN Curahpoh 01.

to determine the relative effectiveness of using the inquiry learning model compared to the discussion model. Calculating the relative effectiveness test is obtained from the difference between the pretest and posttest scores of the experimental class (MX2) and the control class (MX1). The following is the calculation of the relative effectiveness test in this study.

$$ER = \frac{MX_2 - MX_1}{\left(\frac{MX_1 + MX_2}{2}\right)} \times 100\%$$

Description:

ER = The relative effectiveness of the experimental group treatment compared to the control group treatment

MX₁ = Mean / average score in the control group

MX₂ = Mean / average score in the experimental group

The results of the relative effectiveness (ER) test obtained 65.2% of the high effectiveness category by applying the inquiry learning model assisted by video media, while for the acquisition of 34.8% by applying the discussion model.

Based on the discussion above, it can be concluded that a significant effect on learning outcomes is applying the inquiry learning model assisted by video media. Factors that influence learning outcomes are obtained from 2 factors, namely factors from within in the form of students' abilities, and factors from outside in the form of school factors, namely teachers who apply inquiry learning models assisted by video media to the learning outcomes of grade IV students theme 7 subtheme 1 learning 3 at SDN Curahpoh 01, Curahdami

sub-district, Bondowoso district. This research is in accordance with previous research using inquiry as a learning model conducted by Hendarwati (2013), Sentanu et al (2013), Wariyanti and Nasution (2019), Rukmaliani et al (2010), and Pratiwi et al (2019) that the application of the inquiry learning model affects student learning outcomes.

4. Conclusion

From the data analysis and discussion. that the average value of pretest 53.42 and posttest 73.42 different 15 in the experimental class (class IVA), and the average value of pretest 51.19 and posttest 58.90 different 7.61 in the control class (class IVB). The results of the t-test calculation using SPSS version 21 obtained a tcount of 5.273. These results are then consulted with the t table, knowing the degree of freedom (db), namely the number of respondents minus 2 so that (21 + 21) - 2 = 40 at a significant level of 5%, so that the t table value = 2.021 is obtained. Thus the tcount value of 5.273 > ttable = 2.021 means that the alternative hypothesis (Ha) is accepted and the null hypothesis (H0) is rejected. While the results of relative effectiveness (ER) obtained 65.2% with a high category.

Based on the results of the above analysis, it can be concluded that there is a significant and more effective effect on the experimental class (IVA) which applies the inquiry learning model assisted by video media, compared to the control class (IVB) which applies the discussion model.

Bibliography

- Afandi, M., E. Chamalah, and O. P. Wardani. 2013. 392 Learning Models and Methods in Schools. National Library Catalog In Publication (KDT) Sultan Agung Islamic University Semarang.
- Almutairi, B. A., M. A. Alraggad, and M. Khasawneh. 2020. Bloom's taxonomy (cognitive, affective, and psychomotor domains) and identification of educational problems in Indonesia. *European Scientific Journal ESJ* 16(16): 1-10.
- Andrianti, R. 2017. The Effect of the Application of Problem Solving Method Using Picture Media on Student Learning Outcomes in Thematic Learning Class Iv Min Miruk Aceh Besar. Thesis
- Hidayat, A. 2019. The Effect of Experiential Learning Model and Learning Motivation on Physics Learning Outcomes of Class XI Students of SMA Negeri 1 Kota Bima. *Journal of Education Science* (2). <http://eprints.unm.ac.id/13216/>.
- Kalimah. 2019. The effect of problem-based learning model (pbn) on the value of grade iii students on theme 3 subtheme 1 'objects around me' at sdn 2 makarti jaya teacher sdn 2 makarti jaya. *Scientific Elementary School Teacher Education* 3: 40-46.
- M. Masyhud S. 2016. Educational Research Methods. 4th ed: 2014 Jember: Institute for Management and Professional Development of Education.

- Mufarokah, A. 2015. The Use of Video Media to Improve Understanding of Fardlu Prayers in Grade II Students. *Journal of Education Science*: 16-43.
- Nilakusmawati, D. P. E, and N. M. Asih. 2012. Theoretical Review of Some Learning Models. Denpasar: Udayana University.
- Ning T. U. 2011. The influence of video media on the ability of storytelling on english lesson students class v sd negeri panjatan, panjatan, kulon progo. *Journal of Education Science*: 96.
- Nurdyansyah, and E. F. Fahyuni. 2016. Nizmania Learning Center Innovation Model. Print. Sidoarjo: Nizamia Learning Center Sidoarjo.
- Pratiwi, K. F., N. Wijayati, F. W. Mahatmanti, and Marsudi. 2019. The effect of guided inquiry learning model based on authentic assessment on student learning outcomes. *Journal of Chemical Education Innovation* 13(1): 2337-48.
- Rukmaliani, U., Rosnita, and M. Asran. 2010. The effect of inquiry learning model on. *Journal of Elementary School Education*: 2-10.