



The effectiveness of group to group exchange with visual media in thematic learning outcomes

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Abstract: This study aims to determine whether there is the influence of the group to group exchange learning model assisted by visual media on the results of thematic learning in class IV MIN 02 Madiun. This study used an experimental method with the Quasi-Experimental design type Nonequivalent Control Group Design. The sample of this study was conducted in class IV-C as an experimental class which amounted to 36 students, and the IV-D class as a control class totaling 37 students. Sampling uses cluster random sampling technique. Data collection techniques using test techniques, observation sheets and documentation. The data analysis technique used is the analysis of statistical data, namely the Independent Sample t-Test. From the analysis of pretest data shows that the initial ability of the experimental class and the control class is balanced. Based on the results of the posttest value data analysis, from the data performed using the t-test with $\alpha = 5\%$, the data obtained is $t_{count} (3,696) \geq t_{table} (1,993)$. From the testing criteria, this study H_0 was rejected and H_a was accepted. Thus it can be concluded that there is an influence of the group to group exchange learning model assisted by visual media on the results of thematic learning in class IV MIN 02 Madiun.

Keywords: effect of learning model group to group exchange, visual media, learning outcomes, thematic

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INTRODUCTION

The 2013 curriculum has been implemented in Indonesia starting in the 2013/2014 school year. In 2013, the 2013 curriculum began to be applied to primary and elementary school level grades I and IV. In 2014, the 2013 curriculum was applied to classes I, II, III, IV and V. In 2015 until now, the 2013 curriculum has been applied in all classes, namely class I to class VI. Characteristic of the 2013 curriculum is curriculum that develops a balance of cognitive, psychomotor and affective abilities. The implementation of learning in the 2013 curriculum was carried out systematically to create a more meaningful and enjoyable learning atmosphere. To create a meaningful and enjoyable learning environment, the 2013 curriculum was implemented using a learning model known as the thematic learning model.

Thematic learning is learning that links several different subjects using the same theme in an integrated manner to provide meaningful experiences to students in learning (Ananda, R 2018). Furthermore, Kusumawati, et al (2017), explained thematic learning, which is an effort to integrate knowledge using creative thinking based on themes. Then, Trianto (2011), also explained thematic learning, namely learning designed based on themes. Based on the theme referred to here that is reviewed from a variety of subjects or is called a lesson with each other linked together.

Based on observations of fourth-grade students at MIN 02 Madiun related to thematic learning, researchers found several problems. First, the lack of student concentration in following thematic learning. Second, the lack of enthusiasm of students following thematic learning. Third, the learning model applied by the teacher is less attractive. At last, the media used by the teacher is still using book media. The learning model used is a conventional learning model that is only centered on the teacher, so the learning is less attractive to students.

One learning model that can be applied is the Group to group exchange learning model. The Group To Group Exchange Learning Model is a learning model that requires different workloads for each group and then each group is required to teach all groups what they have learned. In this learning model requires the activeness of students participating between groups to interact to teach the material being mastered during the teaching and learning process (Silberman, 2009).

Furthermore, according to Prayogo & Silviana (in Sitepu, M.S, 2018), the Group To Group Exchange learning model is a form of learning with a discussion approach that assigns different task loads to each group. This model requires students to explore thinking skills, foster a spirit of discussion, interact with one another and share the knowledge possessed with other friends.

In addition, to use the learning model, teachers also need learning media which has a function media in delivering material in thematic learning. Many media can be used by teachers, including using visual media such as pictures, graphics, charts, posters. In this study, researchers chose visual media in the form of images as a supporting tool. According to Cecep, K (in Anggraini, 2017), image media is media that has function of conveying messages in the form of images through the sense of sight. The message is conveyed through visual communication symbols.

Furthermore, according to Richard (in Anggraini, 2017), media images are graphic forms that do not move or move, like photos, floor plans, animations or cartoons. Based on the explanation presented, the purpose of this study is to determine whether there is an effect of the visual media-assisted group-to-group learning model on the thematic learning outcomes of fourth grade students at MIN 02 Madiun.

METHODS

The location of the research was in MIN 02 Madiun. This study used a quasi experimental design type nonequivalent control group design. Researchers used two classes, namely the control group that was treated using the experimental method while the control group was

treated using the conventional lecture method. According to Syahrur & Salim (2012), the population is the whole observation or object to be studied. The population in this study were all students of class IV MIN 02 Madiun in the academic year 2018/2019 around 187 students.

According to Syahrur & Salim (2012), samples are part of the population. The sample in this study was class IV C as an experimental class with 36 students, while the control class sample was class IV D with 37 students. Sampling in this study used the cluster random sampling technique. According to Syahrur & Salim (2012), Cluster Random Sampling is a way to determine the sample if the object to be studied consists of groups of individuals, the sampling is done by drawing.

According to Syahrur & Salim (2012), the independent variable is the variable that is able to influence the occurrence of the dependent variable. This study determines that the independent variable is a group to group exchange learning model assisted by image media. And, the dependent variable is a variable that is affected because of the independent variables. The dependent variable in this study was the thematic learning outcomes of fourth-grade MIN 02 Madiun students (Syahrur & Salim, 2012).

Data collection techniques used in this study were test, documentation, observation. The test given was intended to measure the thematic learning outcomes of students in class IV MIN 02 Madiun. The documentation in this study also took the form of learning tools such as lesson plans, syllabi, and photographs when the research took place. Also, researchers observing student behavior during the learning process.

The research instruments used in this study were lesson plan, syllabus, tests, and observation sheet. Trianto (2017) argues that the syllabus is prepared with reference to the content standards that contain subject identity, core competencies, basic competencies, indicators, learning materials, time allocation, learning activities, learning resources, media, and assessment. Trianto (2017) explains that lesson plan is a plan for face-to-face learning activities. The lesson plans are prepared based on a syllabus with student guide books and teacher books that have been systematically designed by the Ministry of Education and Culture. The lesson plan used in this study is the thematic lesson plan grade 4, theme 7 subtheme 1 learning 1. The instrument used test questions in the form of multiple choice questions to find out and see the thematic learning outcomes of class IV MIN 02 Madiun students. with four answer choices, students are required to choose the answer that is considered appropriate. Before conducting research, researchers conducted a test of the validity of the questions conducted at MIN 02 Madiun in class IV-A. Researchers tested the validity of 25 pretest questions and obtained 20 valid questions, 5 invalid questions and 25 posttest questions and obtained 20 valid questions, 5 invalid questions. Then, the researcher took 20 pretest questions and 20 posttest questions to be used as research instruments.

The analysis technique used in this study is the first prerequisite test that is a test of normality and homogeneity. In the normality test the data is entered to show that the sample data coming from the subjects to be analyzed are normally distributed. Normality test is one of the t test requirements. In the normality test the data is entered to show that the sample data coming from the subjects to be analyzed are normally distributed. Normality test is one of the requirements of the t test. The normality test used in this study is the Kolmogorov smirnov test using SPSS Version 25 for Windows. And to test the homogeneity of the data in this study is the levene test using SPSS Version 25 for Windows. After that, the Hypothesis Test is done. In determining the hypothesis in this study using the Independent Sample t-test t test using the SPSS Version 25 for Windows program. In this research hypothesis testing is carried out to find out and test whether the hypotheses that have been formulated are proven to be true and acceptable or vice versa starting from the existing hypotheses. With a significant level of 5%. The conclusion is to compare with. If \geq , then it is accepted and rejected (there is an effect of the group to group exchange learning model assisted by visual media images on thematic learning outcomes in fourth grade students MIN 02 Madiun). And if $<$, then it is accepted and rejected (there is no effect of the

group to group exchange learning model assisted by visual media images on the thematic learning outcomes in class IV MIN 02 Madiun).

RESULT AND DISCUSSION

This discussion is on the data obtained during the research conducted at MIN 02 Madiun. Data taken from the pretest scores of the two classes before being given treatment and posttest of the two classes after being treated. The researcher took data on the thematic grades of grade IV MIN 02 Madiun students. After the data was collected then researchers calculate the average, median, mode, and variance. After that, normality and homogeneity prerequisite tests were carried out.

From the analysis of the data on the pretest scores obtained an average of 70.56 students in the experimental class and 70.14 control class, so that systematically different 0.4. When viewed from a comparison of the average value of the experimental class pretest and the control class, it can be concluded that both data have the same initial ability. Thus, that it can be used as a sample to compare two learning models. The posttest value data obtained by the average student in the experimental class 84.72 and 77.97 control class, so that systematically different 6.75. When viewed from the difference in the average of the two classes, the experimental class that was treated using a group to group exchange learning model assisted by visual media has better average than the control class that is treated using the conventional learning model.

The average grade of the experimental class was better because in this learning model used group-to-group exchange learning assisted by visual media, whereas students were more required to actively explore their own knowledge broadly and teach each other to all friends. Then, at the end the teacher acted as an evaluator who justifies if there were mistakes and besides that in this learning model already used visual media in the form of pictures and in learning activities using this learning model. As a result, students were very enthusiastic in participating in learning activities. Thus, by using the learning model group to group exchange assisted by visual media get better grades. Meanwhile, the average value of the control class was lower because in this learning still used the conventional learning model of lectures whereas learning was teacher-centered. Besides that, in the conventional learning model, the media was used is only student's books. To sum up, by using the conventional learning model lectures obtain lower learning outcomes than experimental classes.

Table 1. Test of homogeneity of variance pretest

		Levene Statistic	df1	df2	Sig.
Pretest Experimen dan Kontrol	Based on Mean	.012	1	71	.912
	Based on Median	.004	1	71	.948
	Based on Median and with adjusted df	.004	1	70.992	.948
	Based on trimmed mean	.013	1	71	.908

Based on the results of the observation sheet, that the affective and psychomotor results of the experimental class with treatment using a group to group exchange learning model assisted with visual media images in learning experience had better behavior changes, compared to using conventional models that students become more thorough, careful, confident increasing, become more responsible than the material being studied, and can respect each other's opinions from all friends. In addition, students' psychomotor skills, namely writing skills, speaking skills are also more inclined and active and in practice demonstrating also better because they teach each other to fellow friends. So it can be concluded that using group to group exchange learning assisted by visual media also brings changes in students' affective and psychomotor behavior for the better.

From the analysis of normality test using SPSS Version 25 for Windows. in the experimental class pretest obtained by Sig. of $0.162 > 0.05$, the experimental class posttest

is $0.129 > 0.05$, the control class pretest is $0.81 > 0.05$, and the control class posttest is $0.80 > 0.05$. Based on the provisions if the value of Sig > 0.05 , it can be concluded that the data are normally distributed.

Table 2. Test of homogeneity of variance posttest

		Levene Statistic	df1	df2	Sig.
Posttest Experimen dan Kontrol	Based on Mean	.049	1	71	.825
	Based on Median	.046	1	71	.831
	Based on Median and with adjusted df	.046	1	70.716	.831
	Based on trimmed mean	.073	1	71	.788

For homogeneity test analysis using SPSS Version 25 for Windows. the result of significance based on the mean of the pretest is $0.912 > 0.05$. Meanwhile the results of significance based on the mean obtained from the posttest were $0.825 > 0.05$. then it can be concluded that the data is homogeneous because of the significant level > 0.05 .

Table 3. Independent samples test pretest

		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
Pretest Experimen dan Kontrol	Equal variances assumed	.012	.912	.175	71	.861	.420	2.400	-4.365 5.206
	Equal variances not assumed			.175	70.934	.861	.420	2.400	-4.366 5.206

Table 4. Independent samples test posttest

		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
Posttest Experimen dan Kontrol	Equal variances assumed	.049	.825	3.696	71	.000	6.749	1.826	3.108 10.390
	Equal variances not assumed			3.697	70.988	.000	6.749	1.826	3.109 10.390

In this study the design of pretest and posttest is used, then the pretest value is compared with the pretest value and the posttest value compared to the posttest value. Based on the hypothesis test that the pretest value is 0.175 while based on df 71 5% is 1.993 so that $0.175 < 1.993$, it can be seen that the analysis of the H_0 test results is accepted and H_a is rejected at a significant level (5%). Thus the conclusion is that there is no influence on the results of the initial abilities of the pretest of the experimental and control classes as well as having the same ability. So the two classes can be sampled to compare two models. And for the posttest hypothesis test the value is 3.696 while based on df 71,5% is 1.993 so $3.696 > 1.993$, it can be seen that the analysis of the results of the H_0 test is rejected and H_a is accepted at a significant level (5%). Thus the conclusion is given. There is an influence of group to group exchange learning model assisted by visual media on the thematic learning outcomes of fourth grade students MIN 02 Madiun

CONCLUSION

Based on the data analysis and discussion of research results, it can be concluded that there is an influence of visual media-assisted group-to-group learning models on thematic

learning outcomes in fourth grade students MIN 02 Madiun. This can be evidenced from the grades obtained by students of class IV MIN 02 Madiun from the results of statistical tests obtained $3.696 > 1.993$. Because it can be seen that the analysis of the results of the H_0 test is rejected and H_a is accepted at a significant level (5%). Group to group exchange learning model assisted by visual media images is more effective than conventional learning models.

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