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THE EFFECT OF SLIDESGO-ASSISTED QUANTUM TEACHING MODEL ON STUDENT ACTIVITY, MOTIVATION AND LEARNING OUTCOMES

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Abstract. The aim of the study was to determine the effect of the Slidesgo-assisted Quantum Teaching learning model on motivational activities and social studies learning outcomes simultaneously in class V Region II Barru District. This type of research is quasi-experimental (Quasi-Experimental), with the Nonequivalent Control Group Design. The number of samples in this study were 23 people, consisting of 14 people from the experimental class and 9 people from the control class. Data collection methods used are learning achievement tests, questionnaires to measure learning activity and motivation, and documentation. Data analysis techniques used are descriptive statistical approaches and inferential analysis, and Manova hypothesis testing. The results obtained were the Slidesgo-assisted quantum teaching learning model on student activity, motivation and learning outcomes with a significant value of 0.000 <0.05, which means that there was an influence of the Slidesgo-assisted Quantum Teaching model on activity, motivation and social studies learning outcomes for class V students in Region II District. Barru District of Barru. So it can be concluded that the slidesgo quantum teaching learning model can affect the activity, motivation and social studies learning outcomes of class V students, Barru District, Barru Regency.

Keywords: quantum teaching learning model; slidesgo; activity, motivation, learning outcomes

I. INTRODUCTION

The role of education is very important in efforts to improve the quality of Human Resources (HR). In connection with the importance of education, learning conditions in schools need to be planned in such a way as to use appropriate learning. Exactly what is meant is in accordance with the subjects and material to be taught, so that students get equal opportunities to interact with each other.

The learning process directs students to change from not knowing to knowing so that all learning processes must achieve goals in all subjects that have been implemented in schools [2], including Social Sciences (IPS) subjects. Social Sciences (IPS) is a subject that must be taught in elementary schools. This subject has a very important role in everyday life, because through learning Social Sciences (IPS) it will guide students to think logically, critically, rationally, creatively, and think scientifically [3].

Social Sciences (IPS) also has a very important role in character building and children's intellectual development. Given the importance of learning Social Sciences (IPS), learning is needed according to its characteristics, so that students can learn meaningfully. The meaningful meaning of the word in question is that through social studies learning students can gain an understanding based on what students hear, feel, see and experience themselves [4]. This is in line with what was expressed by Susanto that learning will be meaningful for a student when they are directly involved actively, both mentally, physically and socially in the learning process [5]. The creation of meaningful learning is influenced by student activity in the learning process. Through learning activities, students will have more opportunities to understand new knowledge [6]. The activities shown by students will affect how much the level of understanding and learning outcomes is obtained in learning. The dominant level of student motivation and activity in learning Social Sciences (IPS) will result in broader student understanding, and of course learning outcomes will also increase. However, this is inversely proportional to what happened to class V students in Region II, Barru District, Barru Regency.

From the results of observations made on October 17 2022 to October 20 2022 in several Class V Elementary Schools Region II Barru District, Barru District, namely UPTD SDN 11 Barru, UPTD SDN 12 Barru, UPTD SDN 4 Barru and UPTD SDN 8 Barru, it can be seen that there is still many students were less active in participating in social studies learning, this was evident when the teacher explained, some students were seen playing and chatting with their classmates. In addition to this, when students were given the opportunity to ask questions about the material being discussed, none of the students asked questions and vice versa when students were given the opportunity to answer questions, only 2 to 4 students raised their hands to answer. This is because the learning process is still monotonous, where every learning activity is dominated by the teacher so that students look passive because of the lack of interaction and communication between students and teachers. Furthermore, student cooperation in learning has not been well established, it appears that in group work activities, students tend to work alone or when solving a problem. Students are still individual in learning which is reflected in the lack of interaction and cooperation between students during class discussions [7].

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Another problem is that the teacher has not been able to create a pleasant learning atmosphere, the use of media is also very limited, causing students to become less active and less motivated in participating in learning and of course this affects the learning outcomes.

Based on the background above, it is deemed necessary to have a solution and one of the right solutions is the application of innovative learning so as to create active learning conditions. In line with this, innovative learning is expected to be able to motivate students to study Social Sciences (IPS) and can encourage students to play an active role in learning, be active in asking questions and working together so that this will have an impact on the learning outcomes that will be achieved by students [8] .

One of the appropriate learning is the application of the Quantum learning model assisted by Slidesgo. Quantum is learning that invites students to learn in a more comfortable and enjoyable atmosphere, providing opportunities for students to link all interactions and differences in maximizing learning moments [9]. This learning emphasizes students to foster learning motivation, experience the learning directly given, name, repeat learning, and celebrate learning outcomes [10].

The Quantum learning model creates lively learning conditions with all its nuances [11]. The excitement in question is that it will be created when all students are actively involved in learning. Through the active involvement of all students make learning effective and students are able to achieve learning outcomes in accordance with what they aspire to [12]

This excitement can be maximized with the help of Slidesgo. Slidesgo will make students more actively involved in participating in learning from the beginning to the end of the learning process [13]. Slidesgo is used in Quantum learning because Slidesgo provides a variety of relatively attractive templates so that it gets a good response from students. Even though it has deficiencies or weaknesses (eg compatibility of letters and limitations in downloading), in general educators find it helpful to use this Slidesgo application. [14].

Learning using the Slidesgo-based Quantum model can certainly make students more active, motivated and easily achieve the desired learning outcomes [15]. However, the magnitude of the influence of the Slidesgo-assisted Quantum Teaching learning model is unknown. Based on these thoughts, a study was conducted entitled "The Effect of the Slidesgo-Assisted Quantum Teaching Learning Model on the Motivational Activities and Learning Outcomes of Social Sciences for Grade V Elementary School Students Region II, Barru District, Barru Regency".

II. RESEARCH METHODS

1. Approach and Type of Research.

This study used a quantitative approach with a quasi-experimental type of research (Quasi Experiment), with a Nonequivalent Control Group Design [16]. Which compares the application of the Slidesgo-assisted Quantum Teaching learning model with conventional learning models on activities, motivation and social studies learning outcomes in fifth grade elementary school students in Region II Barru District, Barru Regency.

2. Research design.

The research design is a quasi-experimental, using two groups as research samples [17]. The reason for using the quasi-experimental model in this study was that the researcher could not fully control the two groups studied because not all external variables could be controlled, so that the changes that occurred were not entirely due to the effect of the treatment [18]. The sample selection in this study was carried out by means of simple random sampling [19]. Random sampling is said to be simple (simple) because the taking of sample members from the population is done randomly without regard to the strata in that population. This way is done when members of the population are considered homogeneous [20]. A random sampling technique was used to determine the experimental class and control class by lottery, so that the experimental class was UPTD SDN 11 Barru with a total of 14 students and the control class was UPTD SDN 8 Barru with a total of 9 students.

3. Data Collection Techniques.

The data collection techniques used in this study were observation, questionnaires, learning achievement tests, and documentation [21].

a) Observation.

Observations were made to observe and assess student activity during the learning process, both using the Quantum Teaching learning model assisted by Slidesgo and using conventional learning models.

b) Tes.

The data collection used to determine the effect of the Slidesgo-assisted Quantum Teaching learning model on learning outcomes is a test based on learning indicators. The researcher will give two kinds of tests, namely: pretest and posttest.

c) Questionnaire.

The questionnaire method in this study was used to determine the effect of the learning model on student motivation.

d) Documentation.

Documentation is intended to obtain data directly from research sites in the form of Learning Implementation Plans (RPP), student attendance lists, instrument validation and collecting evidence of student activity while the learning process is in progress.

4. Data Analysis Techniques.

a) Descriptive Analysis.

Descriptive statistical data analysis is used to analyze data by describing or describing the data that has been collected as it is without intending to make generalizations [22]. Analysis of descriptive statistical data in this study is intended to describe activities, motivation and learning outcomes. Data on the distribution and frequency of student acquisition was calculated using SPSS v 25.

b) Inferential Statistical Analysis.

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Inferential statistics is a statistical technique used to analyze sample data and the results are applied to the population. This statistical technique is intended to test the hypothesis. Before testing the research hypothesis, data prerequisite tests were carried out including the normality test and data homogeneity test.

c) Hypothesis Test.

Hypothesis testing to determine the effect of independent variables on the dependent variable was analyzed using One-way Multivariate Analysis of Variance (One-way MANOVA) through SPSS v 25 to analyze existing data through multivariate significance tests and univariate significance tests (Tests of Between Subjects-Effect).

III. RESULTS AND DISCUSSION

Student activities in the teaching and learning process were carried out during four meetings in both the control class and the experimental class. Teaching and learning activities are carried out with a learning model in each class. The teacher makes observations related to student learning activities using the instruments that have been prepared. Student learning activities during the learning process for both the control class and the experimental class are presented in the following statistical test form

Table 1. Statistical data of learning activities

Statistics

		control activity	experimental activity
N	Valid	9	14
	Missing	5	0
Mean		69.67	86.50
Std. Error of Mean		2.000	1.763
Median		71.00	88.00
Mode		63	88[a]
Std. Deviation		6.000	6.595
Variance		36.000	43.500
Range		16	21
Minimum		63	75
Maximum		79	96
Sum		627	1211

a. Multiple modes exist. The smallest value is shown

Based on the table above, the student learning activities in the control class were 9 students with a mean value of 69.67 and for the experimental class there were 14 students with a mean of 86.50. Student activities in the control class with conventional learning, for experimental class learning activities with a total of 14 students have a mean value of 86.50. student activity in the experimental class was very good according to the slidesgo-assisted quantum teaching learning model applied in the experimental class. The following is a diagram of student learning activities in the control class and experimental class.

Next is the experimental class using the Quantum Teaching learning model assisted by Slidesgo [23]. Before being given the learning model treatment, fifth grade students were given a pretest and at the end of the meeting students were then given a posttest to find out students' learning motivation. The following is statistical data on student motivation in the pretest and posttest of the experimental class.

Table 2. Statistical Data on Learning Motivation

Statistics

		pretest experiment	post test experiment
N	Valid	14	14
	Missing	0	0
Mean		66.86	88.71
Std. Error of Mean		1.640	1.420
Median		66.00	90.00
Mode		66[a]	81[a]
Std. Deviation		6.138	5.312
Variance		37.670	28.220
Range		27	14
Minimum		53	81
Maximum		80	95
Sum		936	1242

a. Multiple modes exist. The smallest value is shown

Based on the table above, the experimental class with a total of 14 students was given pretest and posttest treatment, namely the pretest with a minimum score of 53 and a maximum score of 80, the median value was 66.00 with a total value of 936 and a mean value of 66.86. after being given treatment using the Slidesgo-assisted Quantum Teaching learning model, students are given a posttest to determine student learning motivation, namely with a minimum score of 81 and a maximum score of 95, with a median value of 90.00. the total value of learning motivation is 1,242 with a mean of 88.71.

Furthermore, the assessment of student learning outcomes in the experimental class was given a pretest before receiving treatment using the Slidesgo-assisted Quantum Teaching learning model and after being given treatment students were given a posttest to determine the achievement of student learning outcomes. The following is statistical data on student learning outcomes in the pretest and posttest implementation.

Table 3. Statistical Data on Learning Outcomes

Statistics

		pretest experiment	post test experiment
N	Valid	14	14
	Missing	0	0
Mean		48.57	83.57
Std. Error of Mean		2.938	1.991
Median		50.00	80.00
Mode		40	80
Std. Deviation		10.995	7.449
Variance		120.879	55.495
Range		40	30
Minimum		30	70
Maximum		70	100
Sum		680	1170

Statistical data on the achievement of student learning outcomes in the experimental class with a total of 14 students, that is, for the pretest the minimum score is 30 and the maximum is 70 and for the posttest the minimum score is 70 and the maximum score is 100. The total score in the pretest is 680 and the posttest increases to 1.170 with a pretest mean value of 48.57 and after being given a posttest the student's mean value increased to 83.57. based on these statistical tests it can be concluded that the achievement of student learning outcomes increased after being given treatment using the Slidesgo-assisted Quantum Teaching learning model

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The normality test in this study was used to test activity data, motivation and student learning outcomes using the Kolmogorov-Smirnov method. The normality test data is If the Significance value (Sig.), > 0.05 then the research data is normally distributed.

Table 4. Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		23
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.19720008
Most Extreme Differences	Absolute	.093
	Positive	.093
	Negative	-.091
Test Statistic		.093
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Based on the normality test above, in the control class and experimental class. Based on the normality test using SPSS 25 with the One-Sample Kolmogorov-Smirnov Test based on the Unstandardized Residual of the dependent variable affecting the independent variable, the Asymp value is obtained. Sig. (2-tailed) of 0.200 is greater than 0.05, it can be concluded that this study has a normal distribution. Thus, the assumptions or requirements for virginity are normally distributed

Homogeneity test is carried out to test whether the samples have the same variance. To find out whether the two samples are homogeneous or not, it is necessary to test the homogeneity of the variance first with a significant level of α = 5%.

Table 5. Homogeneity Test

Test of Homogeneity of Variances

		Levene Statistic	df2	Say.
activity	Based on Mean	.053	21	.821
	Based on Median	.001	21	.982
	Based on Median and with adjusted df	.001	19.716	.982
	Based on trimmed mean	.037	21	.848
motivation	Based on Mean	.327	21	.573
	Based on Median	.452	21	.509
	Based on Median and with adjusted df	.452	20.994	.509
	Based on trimmed mean	.346	21	.563
learning outcomes	Based on Mean	2.930	21	.102
	Based on Median	1.675	21	.210
	Based on Median and with adjusted df	1.675	20.308	.210
	Based on trimmed mean	2.937	21	.101

Based on the results of data analysis on learning activities a significant value of 0.848 is greater than 0.05 with a statistical leverage of 0.037. Learning motivation obtained a significance value of 0.563 greater than 0.05 with a statistical leverage of 0.346 and for learning outcomes with a significance value of 0.101 greater than 0.05 which indicates that the two groups are homogeneous with a statistical leverage of 2.937. Homogeneity test based on the above that the three dependent variables have a significant value greater than 0.05, it can be concluded that the three variables are homogeneous

4) Hypothesis Test

After the normality test and homogeneity test were carried out on the three dependent variables, a hypothesis test was carried out to determine the effect of the slidesgo-assisted Quantum Teaching learning model on activity, motivation, and social studies learning outcomes simultaneously in class V students. Test this hypothesis to find out whether the independent variables simultaneously influence the dependent variable. The hypotheses tested in the multivariate significance test are:

H0 : There is no effect of the Sidesgo-assisted Quantum Teaching learning model on social studies activity, motivation and learning outcomes in class V Region II, Barru District, Barru District.

H1 : There is influence of the influence of the Slidesgo-assisted Quantum Teaching learning model on social studies activity, motivation and learning outcomes in class V Region II, Barru District, Barru Regency.

Table 6 Hypothesis Testing

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Say.
Intercept	Pillai's Trace	.997	1809.068[b]	3.000	19.000	.000
	Wilks' Lambda	.003	1809.068[b]	3.000	19.000	.000
	Hotelling's Trace	285.642	1809.068[b]	3.000	19.000	.000
	Roy's Largest Root	285.642	1809.068[b]	3.000	19.000	.000
Class	Pillai's Trace	.822	29.324[b]	3.000	19.000	.000
	Wilks' Lambda	.178	29.324[b]	3.000	19.000	.000
	Hotelling's Trace	4.630	29.324[b]	3.000	19.000	.000
	Roy's Largest Root	4.630	29.324[b]	3.000	19.000	.000

a. Design: Intercept + Class
b. Exact statistic

The Test of Between-Subjects Effects test above was carried out with the help of SPSS v.25 with the decision that the significant value of the Slidesgo-assisted Quantum Teaching learning model on activity, motivation and student

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learning outcomes with a significant value of 0.000 <0.05, which means that Ho is rejected H1 is accepted, that is, there is an influence of the Slidesgo-assisted Quantum Teaching model simultaneously on the activity, motivation and learning outcomes of social studies class V Region II Barru District, Barru Regency.

Application of the Slidesgo-assisted Quantum Teaching learning model to fifth grade students in Barru District, Barru Regency to determine increased activity, motivation and student learning outcomes. This study uses the Manova hypothesis test to determine the effect of independent variables on the dependent variable. Before testing the hypothesis, a prerequisite test is carried out first. After it was stated that the distribution was normal and homogeneous, then it was continued to test the Manova hypothesis to determine the effect of the learning model [24].

Manova hypothesis test with a significant result of 0.000 <0.05, which means that Ho is rejected H1 is accepted, that is, there is an influence of the Slidesgo-assisted Quantum Teaching model on the activity, motivation and learning outcomes of social studies class V students in Region II, Barru District, Barru Regency.

This research was conducted by [25] which showed that the implementation of the TANDUR type Quantum Teaching learning model in teaching and learning activities affected the learning outcomes of class IX students of SMP Negeri 5 Pringsewu. This research was not assisted by Slidesgo, only had one dependent variable, and the research was conducted in junior high schools. This study both uses the Quantum Teaching learning model, with a Quasi Experimental Design approach.

This research is supported by Piaget's cognitive theory finding that knowledge makes sense when students seek and find it for themselves [26]. The discovery process leads to experimental actions carried out by students. As a study-based learning model by Jean Piaget, students run extensive experiments to see what happens, ask questions, ask questions, and find answers for themselves. For a discovery network for others, compare what they have learned with what other students have found [27]. Jean Piaget's theory strongly supports the application of research-based learning models. This is because in learning, students can fully utilize their potential through the process of self-discovery

Previous research conducted by showed that the Slidesgo application can be used to enrich MS PowerPoint application templates [27]. The template obtained based on the conversion results from Slidesgo can be used and is compatible with MS PowerPoint presentation templates. There are many options available, which can be downloaded for free [28]. These templates are also relatively attractive and well received by students. This study does not use a learning model. This type of research used is qualitative. The location of the research is in the Vocational High School.

While this study both used [29]. The novelty in this study is the use of the Slidesgo-assisted Quantum Teaching learning model which still lacks research on this learning model and this study also has three dependent variables namely activity, motivation and student learning outcomes [30] and [31].

IV. CONCLUSION

Based on the results of the research and discussion above, it can be concluded that the influence of the Slidesgo-assisted Quantum Teaching learning model on motivational activities and social studies learning outcomes simultaneously in class V Region II, Barru District, Barru Regency. Significant value of 0.000 <0.05, which means that Ho is rejected H1 is accepted, that is, there is an influence of the Slidesgo-assisted Quantum Teaching model on the activity, motivation and social studies learning outcomes of class V class V Region II Barru District, Barru Regency.

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