The Effect of Resource Based Learning Models Assisted by Microsoft Sway Media on Student Learning Outcomes in History Subjects

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Abstract: The implementation of the independent curriculum is designed to develop 4C skills in the learning process to improve students' learning abilities in studying history. Students' ability to analyze and evaluate learning is an important part of assessing learning outcomes. Based on previous research, it shows that the learning outcomes in history subjects obtained by students are not optimal and are still relatively low. Theoretical studies show that implementing innovative learning models can improve learning outcomes. In theory, one learning model that can improve student learning outcomes is the Resource Based Learning (RBL) model assisted by Microsoft Sway media. The aim of this research is to test the effect of the RBL model assisted by Microsoft Sway media on student learning outcomes in history subjects. This research uses a quantitative approach with pre-test and post-test quasi-experiments; nonequivalent group design. The data analysis technique uses the ANCOVA test. The results of the ANCOVA test show a significance result of 0.012 (0.012 < 0.05), which means there is a significant influence of the application of the RBL model assisted by Microsoft sway media on learning outcomes and the partial eta squared value shows a result of 0.094 which is classified as having a large influence on the application of the assisted RBL model Microsoft media influences student learning outcomes in history subjects. In conclusion, there is an influence of the RBL model assisted by Microsoft sway media on student learning outcomes in history subjects. The recommendation from the results of this research is that the application of the RBL model assisted by Microsoft Sway media is expected to be an alternative learning model that is relevant according to students' needs in learning history.

Keywords: Resource Based Learning, Discovery Learning, Learning Outcomes

1. Introduction

Education has experienced significant changes caused by the industrial revolution 4.0. This gives rise to learning innovation, especially in 21st century learning which is present in line with technological developments [16]. These developments have an impact on the teaching system, which must integrate learning with technology which provides independent learning opportunities for students to think more creatively and innovatively [6, 12, 17]. Along with these changes, the role of educators is very important in implementing teaching strategies to optimize the learning process.

In the learning process, students are facilitated to develop 4C skills which include; (1) critical thinking (critical thinking); (2) communication; (3) working together (collaboration); and (4) creativity [10, 3]. These skills are in accordance with the implementation of the independent curriculum and learning will be achieved in accordance with the expected goals by using strategies and responding to challenges oriented towards 4C skills [11, 7, 14, 8]. In educational practice, we pay attention to the so-called needs assessment and performance analysis. These two aspects have a significant influence on policy and the formation of learning [20] In response to this, especially in history learning, educators must design learning that leads to innovative, adaptive and responsive learning aimed at life skills [19],

which emphasizes the 4C skills [22, 19], which has five standard subject skills history, one of which is historical thinking skills. These students' historical thinking skills have a positive impact on learning outcomes. Learning outcomes are the result of achieving previously determined learning objectives. To be able to experience learning outcomes, it must be through good cooperation from all components in learning.

Regarding history learning outcomes, previous research studies show that the learning outcomes in history subjects obtained by students are not optimal and are still relatively low. Research conducted by Safitri et al (2014) showed that the results of the cognitive aspect obtained a classical completeness percentage of 70.96% [18]. Research conducted by Fitrianingsih et al (2015 [5], showed cognitive aspect results of 75.00%. The results of previous research described above, show that the level of learning outcomes obtained by students is relatively low, making it a problem that must be solved in history learning The solution to solving this problem is through an innovative learning model supported by effective learning media.

Innovative learning models are currently very much needed in learning because the demands of the times continue to develop. The term innovative can be interpreted as the implementation or improvement of ideas for a specific purpose. As it relates to education, innovation is a kind of

deviation from standard practice that achieves greater learning outcomes for students [21]. One innovative learning model that is suitable to be implemented is the Resource Based Learning model. The Resource Based Learning (RBL) model is a learning model based on learning resources that includes various ways in which students can learn in ways on a scale from those facilitated by educators to students learning independently [2]. The Resource Based Learning model consists of several syntaxes, namely identifying goals or problems, organizing students in searching for information through learning resources, students developing skills to collect information, students being involved in learning resources by using information obtained from learning sources, synthesizing information and evaluation. The advantages of this RBL model are increasing motivation and learning abilities, initiating new learning opportunities, reducing dependence on educators, fostering higher order thinking skills and effective use of learning resources [22]. So, in the learning process using the RBL model, students can solve problems practically and provide opportunities to build a broad understanding.

Another learning model that is classified as innovative is the Discovery Learning model. The Discovery Learning model is a learning model that emphasizes the learning process to explore something new in learning activities [13], which can be discovered if educators prepare the material to be delivered. The syntax of the Discovery Learning model is stimulus, problem identification, data collection, data processing, evidence and generalization. The advantage of this model is that it builds problem solving and critical thinking skills, students have the opportunity to be more intense in solving problems, so that it is useful for facing life in the future. Several previous studies show that the Discovery Learning model can improve learning outcomes in terms of knowledge, attitudes and skills.

Effective learning using innovative learning models certainly requires the role of technology to support its continuity. The application of technology in learning is packaged in interactive media, one of which is Microsoft Sway media. Microsoft sway is a web-based application that can be used for multimedia-based presentations, called Sways. With various visual tools, educators can easily create various learning activities by utilizing image, audio, video and other content features in the storyline. The advantages of this media are that it has attractive feature designs, can choose learning content models, and is easily accessible to students and educators anywhere. Previous research shows that this media is effectively used in learning and can attract students' interest in the material presented using Microsoft Sway media.

Based on the background description above, researchers are interested in investigating whether there is an influence of the RBL model assisted by Microsoft Sway media on student learning outcomes in history subjects. This research aims to

test the effect of the RBL model assisted by Microsoft Sway media on student learning outcomes in history subjects.

2. RESEARCH METHOD

2.1 Research Design

This research uses a quantitative approach with a quasi-experimental design. The form of quasi-experimental design used in this research is pretest-posttest, nonequivalent group design.

2.2 Determine population and Sample

This research was conducted at State High School (SMA) 5 Jember. The students who are the population in this research are students in classes XI IPS 1, XI IPS 2, XI IPS 3 and XI IPS 4. This research involved 68 students as research samples. Sampling was not carried out randomly but instead used a homogeneity test to see whether the population variance was the same or not, while determining the research group used the average of the nearest Daily Test (UH) scores in history subjects.

Table 1: Homogeneity Test Results of Daily Tests for Class XI IPS

UH	Levene Statistic	df1	df2	Sig.
	1.604	3	133	.192

Source: primary data processed

Based on the result of the homogeneity test with SPSS 25 for Windows software, a value of $0.129\ (0.129>0.05)$ was obtained, which means there is a very significant difference, so this shows that the data is distributed homogeneously. All classes in the research population, namely classes XI IPS 1, XI IPS 2, XI IPS 3 and XI IPS 4, showed homogeneous results. Next, to select two classes, namely the control class and the experimental class, it can be seen from the average value of the closest daily test.

Table 2: Average Daily Test Scores for Class XI IPS

Class	Average
XI IPS 1	76,3
XI IPS 2	77,5
XI IPS 3	76,8
XI IPS 4	73,5

Source: primary data processed

Based on the table above, the results show that all classes XI IPS have homogeneous daily test results. To determine the research sample in the experimental class and control class, two classes were selected that had almost the same average value. So, class XI IPS 1 was chosen as the control class and XI IPS 2 as the experimental class.

2.3 Research Instrument

The instrument used to measure learning outcomes is a multiple choice test with reference to learning outcome indicators in the cognitive domain C4 (analysis). The learning outcomes instrument has been tested for validity and reliability. Validity test uses Product Moment correlation assisted by SPSS 25 for Windows software in calculating the analysis of the relationship between items and the total score. Meanwhile, the reliability test was calculated using the Cronbach Alpha technique assisted by SPSS 25 for Windows software. The data analysis technique used in this research uses the ANCOVA test assisted by SPSS 25 for Windows software. Before carrying out a hypothesis test, first carry out an analysis prerequisite test, namely by carrying out a normality test, regression homogeneity test, and linearity test.

3. RESULT AND DISCUSSION

3.1 RESULT

A. Instrument Testing

1. Validity Test

Validity test is a measure to measure an instrument. Validity testing is carried out before the instrument is used in research. The validity test aims to explain the extent of the validity of the instruments found in the research. A valid instrument shows that the measuring instrument used to collect the data is valid. The validity of the question items will be tested by applying the Product Moment correlation formula with the help of SPSS 25 for Windows software in calculating the analysis of the relationship between the question items and the total score. The instrument is in the form of multiple choice questions totaling 25 questions at the same cognitive level, namely C4 (Analyze).

The instrument is structured based on learning outcome indicators with cognitive domain C4. The results of the validity test on the overall question items show that the recount value is greater than the rtable. The overall significance value for the items is smaller than the 0.05 or 5% significance level, which means that the value is significant. So, overall the data can be concluded that all the question items in the validity test are declared valid and suitable for use for research.

2. Reliability Test

Reliability refers to whether an instrument can be trusted as a data collection tool because the instrument is good. Reliability testing aims to show the extent to which an instrument accurately measures research results. The reliability test in this study was calculated using the Alpha Cronbach technique assisted by SPSS 25 for Windows software.

Table 3: Reliability Coefficient Categories

Reliability Coefficient	Criteria
$0.80 < r_{11} \le 1.00$	Very High Reliable
$0,60 < r_{11} \le 0,80$	High Reliable
$0,40 < r_{11} \le 0,60$	Medium Reliable

$0,20 < r_{11} \le 0,40$	Low Reliable
$-1,00 < r_{11} \le 0,20$	Very Low Reliable

Source: Guilford, 1956:145

Table 4: Reliability Test Results of Learning Outcome Instruments

Variable	N	Coefficient (Cronbach's)	Description
Learning	36	0,817	Very High
outcomes			Reliable

Source: primary data processed

Based on the data in the table above obtained from the reliability test of the learning outcome instrument, it has a value of 0.817 in the category 0.80 <r11< 1.00, which means that this value shows very high reliability. Overall, based on the data that has been obtained, it can be concluded that the learning outcomes instrument is declared reliable and has good consistency for use in research.

B. Prerequisite Test Analysis

1. Normality Test

Normality testing of data is used to show whether sample data comes from a population with a normal distribution or not. The normality test is measured based on the results of data on historical thinking skills and student learning outcomes. The normality test uses the Kolmogrov-Smirnov formula with the help of SPSS for Windows version 25. Decision making criteria use a significance level of 5%, so that:

- a. If the significance value is more than 0.05 (> 0.05) then the distribution is normal
- b. If the significance value is less than 0.05 then it is not normally distributed.

Table 5: Normality Test Results of Learning Results

Class		Kolmogorov-Smirnova		
		Statistic	df	Sig.
	Experiment Pretest	0.145	34	0.069
Learning	Experiment Posttest	0.132	34	0.140
Outcomes	Control Pretest	0.121	34	0.200
	Control Posttest	0.127	34	0.179

Source: primary data processed

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Based on the table, it shows that the significance value of the normality test results of student learning outcomes in history subjects using the Kolmogrov Smirnov formula in the experimental class pretest was 0.069 and posttest was 0.140. The pretest for the control class was 0.200 and the posttest was 0.179. Thus, the overall significance value of learning outcomes in the experimental class and control class both shows a significance value above 0.05. Based on the decision making criteria, the significance value is above 0.05, the data is said to be normally distributed.

2. Regression Homogenity Test

The regression homogeneity test was carried out to determine whether there was a relationship between the covariate and the independent variable. The regression test was carried out with the help of SPSS 25 for Windows software with the F-test. Testing was carried out with a significance level of 0.05. The slope of the regression line can be said to be mutually homogeneous if the interaction between the covariates and the independent variables has a significant value of more than 0.05.

Table 6: Results of Regression Homogeneity Test on Learning Outcomes

	Type III Sum of Squares	df	Mean Square	F	Sig.
Class *	20.541	1	20.541	1.233	.271
Pretest					

Source: primary data processed

Based on the data in the table above, the results of the regression homogeneity test for student learning outcomes in history subjects are $0.0271 \ (0.0271 > 0.05)$. So, it can be concluded that the results of the regression homogeneity test value for learning outcomes are greater than the significance level of 0.05, so that the assumption of homogeneity of the regression is fulfilled.

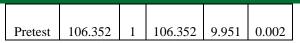
3. Linearity Test

Linearity test aims to determine whether there is a linear relationship between the covariates and the dependent variable using the F-test. The linearity assumption is as follows.

- a. If the significance value is more than 0.05 (> 0.05) then there is no linear relationship between the covariate and the dependent variable.
- b. If the significance value is less than $0.05\ (<0.05)$ then there is a significant linear relationship between the covariate and the dependent variable.

Table 7: Linearity Test Results of Learning Outcomes

	Type				
	III Sum				
	of		Mean		
Source	Squares	df	Square	\mathbf{F}	Sig.



Source: primary data processed

Based on the data in the table above, the learning result is 0.002. The value above shows a significance value of less than 0.05, so it can be concluded that the linearity assumption is met. Thus, through the results of the linearity test the pretest variable has a fairly strong reason as a covariate.

C. Hypothesis Testing

Hypothesis testing is carried out to answer the problem formulation in the research. In this research, pretest and posttest data from the control class and experimental class will be tested for hypotheses using ANCOVA assisted by the SPSS 23 for Windows software program.

 Table 8: Test Results of Between Subject Effect Learning

 Outcomes

Tests of Between-Subjects Effects									
	Dependent Variable: Posttest								
	Type III					Partia l Eta			
	Sum of		Mean			Squar			
Source	Squares	df	Square	F	Sig.	ed			
Corrected	306.631a	3	102.21	9.564	.000	.310			
Model			0						
Intercept	342.504	1	342.50	32.04	.000	.334			
			4	7					
Learning_	65.367	1	65.367	6.116	.016	.087			
Model									
Pretest_	106.352	1	106.35	9.951	.002	.135			
Learning			2						
Outcomes									
Learning_	70.687	1	70.687	6.614	.012	.094			
Model *									
Pretest_Le									
arning									
Outcomes	10 1 00 5		10 100						
Error	684.002	64	10.688						
Total	459043.000	68							
Corrected	990.632	67							
Total									
a. R	Squared = .310) (Adj	justed R S	quared =	= .277)				

Source: primary data processed

Based on the results of the data in the table above, to determine the effect of the learning model on the learning outcomes obtained by students. The corrected model column results show a result of 0.000 (0.000 < 0.05). So simultaneously the pretest and learning model influence student learning outcomes. The results of the learning model column show a significance result of 0.012 (0.012 < 0.05) so that H0 is rejected and Ha is accepted. The student learning outcomes scores on the post-test are higher than the scores on the pre-test. Students in the experimental group tend to have

high performance after being given treatment using the resource based learning model assisted by Microsoft Sway media. In conclusion, there is a significant influence of the application of the RBL model assisted by Microsoft Sway media on student learning outcomes in history subjects. The criteria for the magnitude of the influence can be seen in the Effect Size Criteria table presented below.

Table 9: Effect Size Criteria

Effect Size	Categories
0,1	Small Effect
0,3	Medium Effect
0,5	Large Effect

Tests carried out to see the influence between the two models applied to the control and experimental classes, namely the RBL model assisted by Microsoft Sway media and the discovery learning model, can be seen in the estimated marginal means results table as follows:

Table 10: Estimated Marginal Means Results

Dependent Variable: Posttest Learning Outcomes							
			95% Confidence Interval				
Model_Learning	Mean	Std. Error	Lower Bound	Upper Bound			
Discovery Learning	80.731 ^a	.619	79.494	81.968			
RBL	82.413a	.630	81.154	83.672			

a. Covariates appearing in the model are evaluated at the following values: Pretest Learning Outcomes = 78.03.

Source: primary data processed

Based on the data in the table above, the estimated marginal means results show a mean value of 80.731 in the discovery learning model applied in the control class and a mean value of 82.413 in the RBL model assisted by Microsoft Sway media applied in the experimental class. So, in conclusion, the RBL model with the help of Microsoft Sway media has more influence on student learning outcomes than the discovery learning model.

3.2 DISCUSSION

This research aims to test the influence of the Resource Based Learning model assisted by Microsoft Sway media on history learning. In this study, researchers used two groups, namely the experimental group and the control group. The experimental group was taught using the RBL model with the help of Mixrosoft Sway media, while the control group was taught using the discovery learning model. Researchers will verify whether there is a significant influence on the learning outcomes of students who are taught using the RBL model assisted by Microsoft Sway media. Data analysis used the ANCOVA test with pretest as a covariate.

The ANCOVA test results in table 8 of the correlated model column show a result of 0.000~(0.000 < 0.05). So simultaneously the pretest and learning model influence student learning outcomes. Meanwhile, the learning model column shows a significance value of 0.012~(0.012 < 0.05) so that H0 is rejected and Ha is accepted. In conclusion, there is a significant influence of the application of the RBL model assisted by Microsoft Sway media on student learning outcomes in history subjects.

Based on the results of this research, it is clear that the Resource Based Learning learning model assisted by Microsoft Sway media provides the opportunity to provide learning strategies that students need to improve their learning outcomes. According to research by Rahmawati., et al (2021), learning using the resource based learning model can improve student learning outcomes [15]. Resource-based learning is a learning strategy that provides students with the opportunity to acquire and build their knowledge through interaction with various learning sources. The learning resources used by both educators and students in learning greatly influence student responses related to student activity and learning outcomes. The application of the resource based learning model makes learning more effective because it uses non-book learning resources, usually related to technology, thereby creating more meaningful learning.

This research strengthens theoretical studies that learning by referring to learning sources will foster students' creative thinking skills in exploring their learning outcomes. The Resource Based Learning model assisted by Microsoft Sway media helps overcome the diversity of students' needs by providing various ways of learning by adapting students' abilities [2]. Students are free to choose learning resources provided in Microsoft Sway media. So they are free to explore the various information they need from the learning resources that have been provided. This will certainly improve student learning outcomes because they learn according to their learning style and needs.

The Resource Based Learning learning model assisted by Microsoft media supports the differences of each individual student in learning. The learning resources used by both educators and students in learning greatly influence student responses related to student activity and learning outcomes. According to research conducted by Far-far & Pattiasina (2021), the use of resource-based learning models in history learning is sufficient to support history learning activities [4]. The Resource Based Learning model helps students master the material and learning activities in achieving learning outcomes [9]. The resource based learning model can increase mastery of understanding concepts in the field of social sciences and can improve learning outcomes. So that students can follow the steps that have been determined or solve problems.

The Discovery Learning model applied to history learning, namely in the control class, also has a good influence on learning outcomes. The discovery learning model is a learning model that focuses on the intellectual mentality of students in

solving various problems faced so as to find concepts or generalizations that can be applied in the field [1]. The application of the Discovery Learning model really helps educators' efforts to improve student learning outcomes. Not only that, this model also helps in increasing the friendliness of educators and students.

This is evident from the difference in the average score obtained between the pretest learning outcomes of 62 and the posttest learning outcomes of 78. The average score for the experimental class is higher than the control class. Based on the average value of the learning outcomes of the two classes, the experimental class has a value that is superior to the value of the control class. Thus, the experimental class had higher learning outcomes by being taught the RBL model assisted by Microsoft Sway media than the control class which was taught by using the discovery learning model.

4. CONCLUSSION

The conclusion from the research that has been carried out is that there is an influence of the RBL model assisted by Microsoft Sway media on student learning outcomes in history subjects. The results of the ANCOVA test analysis on the learning outcome variables obtained a significance value (sig) of $0.012 \, (0.012 < 0.05)$. This shows that H0 is rejected and Ha is accepted, which means there is a significant influence. The magnitude of the influence of the learning model on learning outcomes can be seen in the partial eta squared value in the learning model column which shows a result of 0.094, which is classified as having a large influence on the application of the RBL model assisted by Microsoft sway media on student learning outcomes in history subjects.

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