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The Influence of the Problem Based Learning (PBL) Model on Learning Outcomes in Social Sciences Subjects ASEAN Grade VIII UPTD SMP Negeri 7 Pematang Siantar

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A B S T R A C T

This research aims to learn about the improvement of learning outcomes of ASEAN material IPS classes VIII UPTD SME State 7 Siantar Year Students by applying the learning model Problem Based Learning (PBL). This research uses a quantitative approach. This type of research is a quasi-experimental research carried out in the 7th Pematang Siantar State High School. The research population is the whole of the students of the eighth grade in the state high school 7 Pematang Siantar with a total of 224 students and the subject of this research is the classes VIII-2 and VIII-3 which totaled 64 people. While for technical data analysis used are Normality Test, Homogenity Test as well as Independent Samples Test using SPSS Version 21. Based on the results of data analysis using Independent Sample Test, thitung= 2.928 and ttable (at a significant level of 5%)= 1.699 means thitung > ttable. According to the criteria, H0 is accepted if thitung < ttable and H0 rejected if Thitung > tab. Thus, it can be concluded that there is an influence of the Problem Based Learning (PBL) Model on learning outcomes on the ASEAN Class VIII UPTD High School Students' Lectures.

INTRODUCTION

When an educator is unwise in determining the learning model, then the learning process and the ability of the student is not maximum. Problem based learning is an innovation in learning because in the problem based learning model (PBL) students' thinking skills can be optimized through systematic group work processes so that students can empower, and develop their thinking skills continuously. The problem-based learning model is characterized by the change in student position from object to subject. In this case, the original student is the passive recipient of anything given by the teacher, becoming active in the learning process. In this learning model, the role of the teacher is not as a teacher who merely carries out the transfer of knowledge, but as a facilitator who helps students in learning.

Problem Based Learning (PBL) is a learning model that involves the active participant to always think critically and always skilled in solving a problem. The workflow of the student depends on how complex the problem is given. Just like project based learning, the rate of success of this method depends on the student's activity. The more actively the student utilizes his thinking skills, the greater the chance that the problem will be solved.The Problem Based Learning Model (PBL) is an innovative learning model that trains students to be able to connect the knowledge they learn and how it will be used or applied to new situations so that the knowledge acquired makes sense to life. Problem-based learning starts from the existing and learned problems, exploring the experience of the learners in order to come up with solutions. The purpose of the application of Problem Based Learning (PBL) method is to encourage students to conduct lifelong independent learning. In addition, Problem Based Learning (PBL) emphasizes collaboration and teamwork that can affect the quality of work produced.

This learning outcome is closely related to the model used by teachers in teaching. Because the model is one of the important components in determining whether the goal of teaching is achieved or not. Therefore, there is not a single teaching learning activity that does not use the teaching model. One of the teachers' efforts to improve the quality of learning of students at school is to use the learning model, the model that the author applied in UPTD SME Netherlands 7 PEMATANG SIANTAR is the Problem Based Learning model (PBL).

The average student at the State High School of Seven Pathangsiantar has a stereotypical attitude, has a strong belief in it, and is unable to defend arguments. These things have an impact on the low learning outcomes of students who have not yet reached the KKM score of 72. Data on the repeat scores of students in the IPS subjects of classes VIII-1 to VIII-7 is that there are 108 students who graduate with a score of achieving KKM zero and as many as 114 students with scores that have not reached KKM.

Students' learning outcomes are very important because the results are one of the indicators of the level of success of class activities. One of the goals of learning is learning success. Success in learning can be expressed by the grace given by the teacher of the numerous subjects followed by students. Based on

the background, the researchers are interested in doing research with the title "Impact of Problem-Based Learning (PBL) Model on Learning Results on IPS Lessons ASEAN Materials Grade VIII UPTD SMP Negeri 7 Pematang Siantar"

THEORETICAL FRAMEWORK

1. Learning Model

A learning model is a series of learning activities that involve the application of a learning approach, method and technique. According to Komalasari (2010:57) the learning model is a form of learning drawn from the beginning to the end that is typically presented by teachers. According to Trianto (in Gunarto, 2013:15) it is a learning model that is used as a guideline for designing learning in class or tutorial.

2. Problem Based Learning

Problem Based Learning is a learning model that involves students solving problems through the stages of scientific methods so that students can learn the knowledge related to the problem and at the same time have the skills to solve the problem. This experience is essential in everyday life where the development of one's mindset and patterns of work depends on how he learns himself.

3. Learning Result

According to Dunn in (Syah, 2012:155) stated that the learning outcome does not depend on time absolutely, but depends on the choice of time that matches the readiness of the student, it can be concluded that the student must be able to determine the time to study well by preparing himself to study before the exam, not delaying work, and setting the time of study effectively. According to Slameto (2010:54) with the student's ability to manage time well then the student can organize, discipline himself, plan, prepare, and evaluate each step of the activity to be implemented.

METHODOLOGY

The type of research carried out is descriptive quantitative research. This research is a description research because it aims to describe the facts and characteristics of a particular population or region in a systematic, factual and thorough manner.According to Sugiyono (2017:11) that "Quantitative research can be understood as a research method based on the philosophy of positivism, used to research on a particular population or sample, data collection using research instruments, data analysis is quantitative/statistical, with the aim of testing the hypotheses that have been applied.

Based on the title of the researcher "The Impact of Problem Based Learning (PBL) Model on Learning Results on IPS Lessons Asean Materials Grade VIII UPTD SME Netherlands 7 PEMATANG SIANTAR. This research was carried out at SME State 7 Pematang Siantar starting in September 2023. The population in this study is the whole of the students of the eighth grade of high school State 7 Pematang Siantar as many as 7 classes of 224 students. The samples in this study were classes VIII-2 and VIII-73 with a total of 64 students.

RESULT

Instrument Validity Test

The validity test on this study used the help of SPSS version 23 and Ms. Excel 2007. The rate used to test the validity of the instrument is 0.05%. Based on the validation test results tested in the eighth grade of UPTD State High School 7 Pematang Siantar with a number of students as 64 students and a total of questions as 25 questions.

A valid element is a element that has a correlation value of (r) 0.355 whereas a element with a correlation value of 0,355 is a valid element. It can be concluded that for a question to be known that as many as 20 elements that have the correlations value of r 0.0355 and as much as 5 elements of r < 0.355, then it is known that 20 questions have valid data and 5 are invalid. Therefore, 5 invalid questions are not used for further research.

Instrument Reliability Test

For the reliability criterion of an angket if rhitung > rtable with a significant degree (α = 0,05) then the angket is said to be reliable. When the Cronbach Alpha value >0.60 is said to be reliable, but if the Cranbach Alpha values <0.60 are said not to be.

From the data obtained, it is known that the Cronbach Alpha is 0.742 > 0.60. From the reliability calculations of the snowball throwing learning model it can be concluded that the research instrument used is reliable.

Difficulty Level

In the hardness test, the researchers used SPSS version 23 to compare the mean value of the SSPS output with the difficulty index of the topic: 0.00 - 0.30 (hard), 0.31 - 0.70 (Spending), 0.71 - 1.00 (Easy). Based on the difficultity test of the subject carried out with the help of SPSs version 23, there are 25 questions, there are 9 questions with easy categories, 14 questions with medium categories and 2 questions with difficult categories.

Difference in power

The differential test of the subject in this study is used to identify the subject's ability to distinguish between high-skilled students and low-skills students. This is the criterion for different power. Based on the different power test of the issue carried out with the help of SPSS version 23, it is possible to find out from a total of 25 questions there are 2 questions with very good categories, 4 questions with a good category, 9 questions with sufficient categories, 9 issues with a bad category, and 1 with a difficult category.

Data Analysis Techniques

Descriptive Statistical Analysis

Table 1. Descriptive Statistical Analysis

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Pre-Test Eksperimen	32	60.00	10.00	70.00	44.2188	15.91861
Post-Test Eksperimen	32	35.00	55.00	90.00	72.5000	11.21635
Pre-Test Kontrol	32	60.00	10.00	70.00	40.3125	17.68622
Post-Test Kontrol	32	50.00	40.00	90.00	63.2813	13.83132
Valid N (listwise)	32					

Based on the above table on the pre-test performed in the control class, the lowest score is 10.00 and the highest is 70.00, while the average achievement achieved in the pre - test in control class is 44.2188. After a conventional learning model, namely a lecture, a re-test is performed and a student's post-test results are obtained with the lowest score of 40.00 and the highest of 90.00. In a pre-test experiment class, a minimum value of 10.00 and a maximum value of 70.00.Thus, in the test results carried out in the experimental class using the Problem Based Learning learning model obtained a higher score compared to the control class using conventional learning model.

Data Normality Test

Table 2. Normality test results

Kelas		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil Belajar Siswa	Pre-Test Eksperimen	.145	32	.083	.948	32	.122
	Post-Test Eksperimen	.123	32	.200*	.935	32	.055
	Pre-Test Kontrol	.141	32	.109	.947	32	.120
	Post-Test Kontrol	.113	32	.200*	.958	32	.242

Homogenity Test

Tabel 3. Uji Homogenitas *Pre-Test*

		Levene Statistic	df1	df2	Sig.
Hasil Belajar Siswa	Based on Mean	1.264	1	62	.265
	Based on Median	1.331	1	62	.253
	Based on Median and with adjusted df	1.331	1	60.407	.253
	Based on trimmed mean	1.262	1	62	.266

On the basis of table 3 above, it can be seen that the homogenity test results are obtained with a significance value of > 265. Based on the criterion of conclusion if the resulting signification value is > 0,05 then the data can be said to be homogeneous.

Hypothesis Test

Table 4. Results of the Hypothesis Test

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
Hasil Belajar Siswa	Equal variances assumed	1.264	.265	2.928	62	.005	9.21875	3.14798	2.92604	15.51146
	Equal variances not			2.928	59.463	.005	9.21875	3.14798	2.92069	15.51681

	assumed								

Table 4 shows that the significance of t () is 0.05 and the total sample of 64 students is 1,669. After an independent test, the T-Test sample received a score of 2,928. It is then known that the thitung value > ttable (2,928 > 1,669) means an accepted alternative hypothesis. By testing the hypothesis it can be concluded that there is a significant influence between the learning model Problem Based Learning and Lecture on the influence of student learning outcomes on IPS subjects in the State High School 7 Pematang Siantar.

DISCUSSION

The success of the student in the teaching process can be seen from the results of the evaluation of the learning results. If the changes the student achieves increase, the student can be said to be successful in learning.

Based on the results of research conducted in classes that used the Problem Based Learning learning model and classes that did not use the lecture method, students were very enthusiastic. Every student works well, a pleasant atmosphere in the learning activities. Besides experience, students also solve problems related to their experience. In classrooms that do not use the Problem Based Learning model, students receive the same learning methods that are commonly used using lecture methods and the same assigned material tasks. Before receiving treatment or action, both groups were pretested to test the similarity of variance so that the group showed the state of the two groups being homogeneous. That means the data was distributed normally and had no other variance. It shows that before being given treatment, both groups had initial abilities, such as groups that used the Problem Based Learning model could be treated and groups that did not use the problem based learning model using the lecture method and both classes received Posttest.

The research was carried out at the Siantar Pematang 7 State Primary School, covering two classes: experimental class and control class. Before receiving treatment, Pretest was given in both classes to determine the basic skills of students. Experimental class had an average of 44,21 and the control class had a mean of 40,31.

After learning the initial skills of students in two classes, students will have different learning content. Students in the experimental class are taught using numerical learning, while students in the control class use the lecture method. After being treated differently in experimental and control class, students are given the final test after studying the material to find out the student's learning outcomes. The average score after the test is 72.50 while the control grade is 63.28.

After performing normality tests on the results of the Pre-Test and Post-test experimental class and control class, obtained normal-distributed data. After finding out that the data is normally distributed, the next step is to check for consistency. We know that the sig value is 0.265. Then the experimental class and the control class have the same variance because 0.265 > 0.05.

Therefore, there is no difference between the two, the data is assumed to be normal and has the same variance.

With hypothesis testing using independent t-test samples, the data tested is a post-test result for both classes. Using a magnitude of significance of 5% or = 0.05 gets a thiter of 2,928. Then it can be known that the value of t-(calculus)> t_table (2,928 > 1,669) means alternative hypotheses accepted. On the acceptance of H(1) from here, it can be concluded that the learning results taught with Problem Based Learning are effective and well used in learning.

CONCLUSION AND RECOMMENDATION

Based on the results of research on the influence of Problem Based Learning learning models on learning outcomes, it was concluded that there was a significant positive influence on the Learning Outcomes of Class VIII UPTD High School 7 Pematang Siantar. In accordance with the purposes of the research of the given problem formula and based on the calculation results of data analysis, among others:

1. 1. Students' learning outcomes on ASEAN subjects of the eighth grade have increased. This is reflected in the learning results of control class students who did not use the PBL model. The performance test used 25 double-choice questions, after the test there were 20 valid questions as a test to evaluate the student's learning results in control class.
2. Students' learning results on ASEAN class VIII material using the Problem Based Learning learning model reached a completion score of 72.50. This performance test uses 25 dual-choices questions.

There is an influence on the learning outcomes of students who are taught with the Problem Based Learning model and who do not use the problem based learning model, where the student's learning outcome is better than the student who does not do the problem-based learning model. This can be seen at the end of the learning in the experimental class that uses the Problem based learning model 72.50 and the level of completion in the control class that does not use a learning model is 63.28.

ADVANCE RESEARCH

Based on the results and conclusions of this study, the researchers have some suggestions as follows:

1. This study provides information on the significant positive influence of the Problem Based Learning learning model on learning outcomes. Although many other factors affecting the student's learning outcome can improve or decrease the learning output, it is expected in further research to use other factors to study so that the results are obtained more thoroughly.
2. Problem Based Learning research model can be a consideration of the learning model by teachers to study ASEAN material. Because with this model students can be responsible for their tasks and cooperate with the group to solve problems such as the material being discussed.

3. Students, especially those with low learning scores, should start to change their learning patterns in conducting an active learning model so that there is a sense of enthusiasm to improve their learning outcomes.

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