



## **THE INFLUENCE OF THE PROBLEM BASED LEARNING MODEL ON LEARNING OUTCOMES OF CITIZENSHIP EDUCATION AT THE XI CLASS OF SMA SWASTA KAMPUS TELUK DALAM**

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### **ABSTRACT**

The purpose of this research is to find out: 1). Is there an influence of the Problem Based Learning model on student learning outcomes in Education of Citizenship at SMA Swasta Kampus of IX Class Teluk Dalam? 2). Is there a significant difference between the Problem Based Learning model and the Conventional model on student learning outcomes in Citizenship Education subjects of the XI Class at SMA Swasta Kampus Telukdalam. This research method is a quantitative method in the form of an experiment. The sampling technique uses non-probability sampling with purposive sampling technique. Where this research involved two classes, namely the experimental class (XI-IPA) with a total of 29 students and the control class (XI-IPS) with a total of 28 students. The instrument used in this research is an objective test in the form of multiple choices with pre-test and post-test data collection techniques. The results of the research show that the average post-test score using the problem-based learning model is 82.42, while the pre-test results are 64.65. The results of this research show that there is an influence of the problem-based learning model on the learning outcomes in Citizenship Education subjects of the XI Class at SMA Swasta Kampus Telukdalam. This can be seen from the results of the t test data analysis, which shows that the sig (2-tailed) value is  $0.000 < 0.05$ , so  $H_a$  is accepted. With the average learning outcomes of the experimental class after the problem-based learning model treatment obtained at 82.42 and the control class with the application of the conventional model obtained at 63.57 with a difference in value of 18.85, so it can be concluded that the problem-based learning model can improve student learning outcomes.

**Keywords:** *Problem Based Learning and Student Learning Outcomes*

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### **1.1 INTRODUCTION**

Learning is a process to help students make the learning process easier. In learning, there are several goals that must be achieved, namely knowledge, skills and attitudes that students must acquire in one or more learning activities. Therefore, to achieve these learning objectives, a teacher has an important role in achieving learning objectives. In the learning process the teacher is the main factor and the teacher's skills in the learning process are the key or main parameter of the quality of education. So, to achieve good teaching goals, a teacher must be able to design a better learning process by using learning models that are able to stimulate students to be more active in the learning process.



Based on initial observations carried out, researchers found a problem, that there were still many students who did not reach the Minimum Completeness Criteria (KKM) with a score of 65. This was proven by the results of interviews conducted with PPKN subject teachers at the IX class of SMA Swasta Kampus and based on the results The pre-test was carried out by researchers, where 13 students out of 29 students got scores above the Minimum Proficiency Criteria (KKM), while 16 students did not reach the Minimum Proficiency Criteria (KKM). This is influenced by many factors, one of which is a learning model that is not appropriate to the material being taught, then another factor is students who experience difficulties in understanding concepts or do not understand the learning material due to lack of motivation and student involvement in the learning process. And another factor, namely the lack of adequate printed book facilities.

One of the efforts made to overcome this problem is by implementing a problem-based learning model. Problem Based learning model is model teaching that characterized by real problems as a context for students to learn critical thinking and problem-solving skills and gain knowledge. This is in line with the idea of (Duch, 1995). States that Problem Based Learning (PBL) is a teaching method characterized by real problems as a context for students to learn critical thinking and problem-solving skills, and gain knowledge (Duch, 1995). As well as based on the research results of Agustin Husnul Khotimah, Dedi Kuswandi, Sulthoni (2019) concluded that learning using the Problem Based Learning model had a better effect in improving students' Civics learning outcomes compared to discussion learning at Karangploso Islamic Middle School.

Based on the problems mentioned above, researchers are interested in conducting research with the title "The Influence of the Problem Based Learning Model on the Learning Outcomes of XI Class Citizenship Education at SMA Swasta Kampus Teluk Dalam".

## **1.2. Research Question**

Based on the preliminary explanation explained above, the problem formulation in this research is 1). Is there an influence of the Problem Based Learning Model on student learning outcomes in XI Class Citizenship Education lessons at SMA Swasta Kampus Teluk Dalam. 2). Is there a significant difference between the Problem Based Learning model and the Conventional model on student learning outcomes in XI Class Citizenship



Education subjects at SMA Swasta Kampus Teluk Dalam. Meanwhile, the aim of the research is to determine the effect of the Problem Based Learning model on student learning outcomes in XI Class Citizenship Education subjects at SMA Swasta Kampus Teluk Dalam.

## **2. RESEARCH METHODS**

### **2.1. Research Design**

The type of research used in this research is quantitative research with quasi-experimental or quasi-experimental methods. This research design has a control class, but it cannot fully control external variables that influence the experiment. This research compared two groups that were given treatment using the Problem Based Learning Model and the Conventional Model, then compared the results of the two different learning model treatments with the aim of finding out the differences in learning outcomes after the Problem Based Learning Model and the Conventional Learning Model were treated.

This research design uses a pretest-posttest control group design, namely the first group is given the Problem Based Learning Model treatment (Experimental Class) while the second group is given the Conventional Learning Model treatment (Control Class). Before the researcher gave treatment to the two learning models in both the experimental class and the control class, the researcher first carried out a pretest which aimed to determine the students' initial abilities in the material to be taught. Furthermore, after being given treatment, the researcher conducted a posttest which aimed to determine students' knowledge of the material provided.

### **2.2. Research Sample**

The sample is a portion of the individuals investigated from the total number of research individuals. Arikunto (2006:134) explains that if there are less than 100 subjects, it is better to take all of them so that the research is population research. "So, considering the population is 57 people, the researcher took the entire population as the research sample (total sampling)."

In this study, two classes were taken as samples because this research used experimental research methods, so the samples used were two classes, namely class XI-IPA as the experimental class and class XI-IPS as the control class.



### **2.3. Research Instruments**

In every research activity, tools or instruments are always needed. Likewise in research. The instrument of this research is an achievement test. In this study, achievement tests were used to obtain data about learning success in Citizenship Education subjects. Test questions are used as research instruments. In this research, the instrument used is a test in the form of multiple-choice questions. Multiple choice questions are accompanied by four alternative answers, namely a, b, c, and d. Of the four alternative choices, only one answer is considered correct. Scoring the answers from this instrument uses a score of 10 correct answers and a score of 0 for incorrect answers.

In terms of material content, the objectives and time allocation for this achievement test are in accordance with the Learning Implementation Plan (RPP) which refers to the basic competencies contained in the syllabus. Making this instrument went through 2 stages, namely the grid making stage and the learning achievement test question preparation stage. The learning achievement test instrument is in the form of multiple choices with 4 alternative answers. The researcher also adapted it to the subject matter of the Citizenship Education subject at the XI Class of SMA Swasta Kampus Teluk Dalam. The learning outcome questions are validated empirically and logically, to fulfill the validity of the preparation of the questions, it is preceded by the creation of a question grid.

### **2.4. Data Analysis**

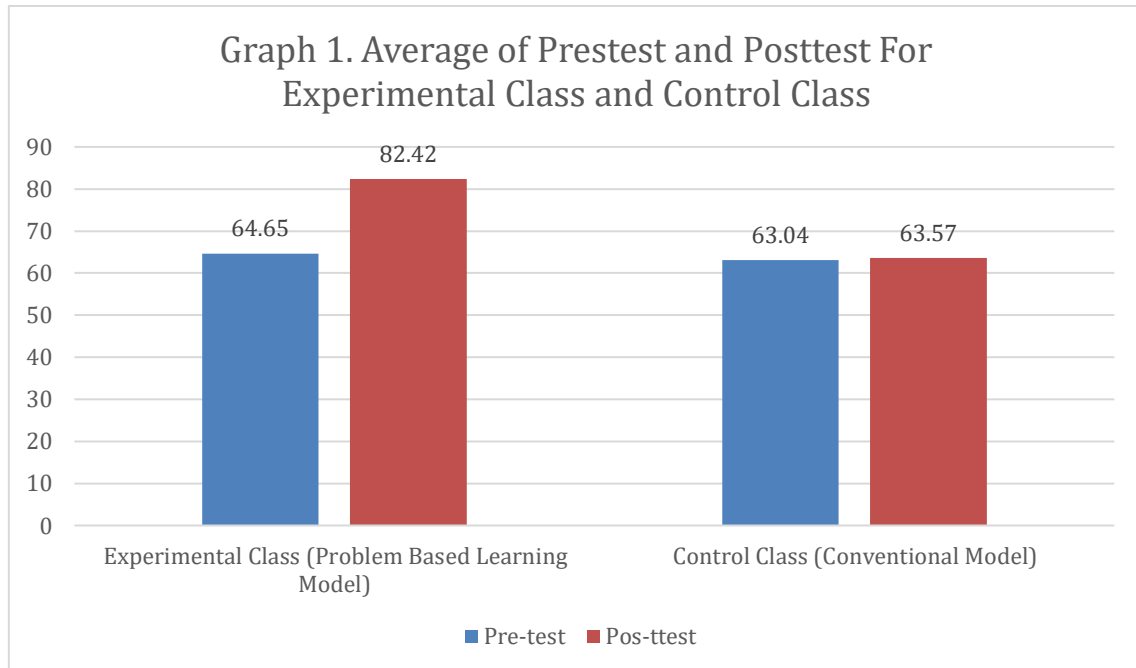
In quantitative research, data analysis is after all respondents or other data sources are collected which are used to analyze, process and interpret in the form of numbers. Next, the researcher carried out data analysis using comparative analysis techniques with the following steps: normality test (Kolmogorov Smirnov), homogeneity test (Levene Statistics Test) and t-test (Paired Sample t-Test) assisted by the SPSS version 25.0 for Windows software program.

## **3. RESEARCH RESULTS AND DISCUSSION**

### **3.1. Research Results**

Before carrying out data analysis in this research, the steps that must be taken are to carry out a pretest and posttest. The pretest was carried out before implementing the

problem based learning model in class XI-IPA (experimental class) and the conventional model in class XI-IPS (control class). Next, a posttest was carried out after implementation on two classes, both the experimental class and the control class. The results of the pretest and posttest scores for the experimental class and control class can be seen in the picture below:



**Figure 1.** Pretest-Posttest Scores for Experimental Class and Control Class

Based on the picture above, it can be seen that the pretest results for the experimental class used the problem based learning model with an average score of 64.65 and the average pretest score for the control class using the conventional model was 63.04. Furthermore, the results of the experimental class pretest using the problem-based learning model with an average value of 82.42 and the average posttest value of the control class using the conventional model was 63.57. Based on the results of the posttest in the experimental class and control class, analysis was carried out using the t test. Before being analyzed using the t test, the posttest results were first used using prerequisite tests, namely the normality test and data homogeneity test, the analysis was carried out using the SPSS version 25.0 for Windows software program. The following description of the normality test results can be seen in the table below:



**Table 1.** Normality test

Class		Tests of Normality					
		Kolmogorov-Smirnova			Shapiro-Wilk		
		Statistics	df	Sig.	Statistics	df.	Sig.
<b>Student learning outcomes</b>	Experimental Class	0.125	29	,200*	0.953	29	0.218
	Control Class	0.128	28	,200*	0.954	28	0.247

**B**

Based on the results of the normality test analysis using the Kolmogorov-Smirnov test with SPSS version 25 above, the data can be said to be normally distributed if the significance value (sig) is  $> 0.05$ . Based on the table above, it can be seen that the significant value for the experimental model class (Problem Based Learning) is  $0.218 > 0.05$ , the significant value for the control class (conventional model) is  $0.247 > 0.05$ . This shows that the data is normally distributed.

**Table 2.** Homogeneity Test

		Test of Homogeneity of Variances			
		Levene Statistics	df1	df2	Sig.
<b>Student learning outcomes</b>	Based on Mean	0.379	1	55	0.541
	Based on Median	0.396	1	55	0.532
	Based on Median and with adjusted df	0.396	1	54,671	0.532
	Based on trimmed mean	0.376	1	55	0.542

Based on the results of the homogeneity test analysis using SPSS version 25 above, data can be said to be homogeneous if the significance value (sig) is  $> 0.05$ . From the table above it is known that the sig value is  $0.541 > 0.05$ , so the population variance of the experimental class and control class is homogeneous.

### Hypothesis Testing Results

Based on the normality test and homogeneity test, the data obtained was declared to be normally distributed and homogeneous, then a hypothesis test was carried out using the t-test (Paired Samples T Test) with the SPSS version 25.0 for Windows software program. The t-test aims to prove the hypothesis that has been formulated previously. The results of the hypothesis test calculations can be seen from the table as follows:



**Table 3.** Hypothesis testing

		Paired Differences					t	df	Sig. (2-tailed)
Pair	Post-test – Pretest	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		13,626	28	0,000
					Lower	Upper			
		1	17.758621	7.018624	1.303326	15.088879			

Hypothetical test decisions are made with the criteria that if the significant value of the t test is  $> 0.05$  then  $H_0$  is accepted and  $H_a$  is rejected, and if the significant value of the t test is  $< 0.05$  then  $H_0$  is rejected and  $H_a$  is accepted. Based on the t test results, it is known that the Sig value is  $0.000 < 0.05$ . So it can be concluded that  $H_a$  is accepted. This means that there is a significant influence of the problem-based learning model on student learning outcomes.

### 3.2. Discussion

This research was conducted at the Teluk Dalam campus private high school involving two classes, namely class XI-IPA as an experimental class using the problem based learning model and class XI-IPS as a control class using a conventional model. The aim of this research is to determine the effect of the problem based learning model on student learning outcomes in Citizenship Education subjects with the theme of the legal and judicial system in Indonesia. Before implementing these two models, both in the experimental class and in the control class, the researcher conducted a pre-test in both the experimental class and the control class, which aimed to determine the students' initial abilities. The average pre-test score for the experimental class (Problem Based Learning) was 64.65, and the average pre-test score for the control class (conventional) was 63.04.

After knowing the initial abilities of the students in both classes, the researchers then conducted lessons for the students using different learning models, but with the same material, namely the legal and judicial system in Indonesia. Students in class XI-IPA as an experimental class are given learning using the problem-based learning model, while in class After being given different applications to the two classes, then at the last meeting the students were given a post-test which aims to determine the students' learning outcomes abilities. The average post-test result score in the experimental class using



problem-based learning was 82.42, while the average post-test score in the control class using the conventional model was 63.57.

After the researcher carried out the pre-test and post-test in the experimental class and control class, a normality test was then carried out. Based on the normality test results, the significant value for the experimental model class (Problem Based Learning) was  $0.218 > 0.05$ , the significant value for the control class (conventional model) was  $0.247 > 0.05$ . This shows that the data is normally distributed. Next, carry out a homogeneity test. Based on the homogeneity test, the sig value is  $0.541 > 0.05$ , so the population variance of the experimental class and control class is homogeneous.

Next, after carrying out the normality test and homogeneity test, a hypothetical test was carried out using the t test with the SPSS version 25.0 for Windows software program. With the aim of answering the problem formulation that has been formulated, namely whether there is an influence of the problem based learning model on the learning outcomes of XI Class Citizenship Education at SMA Swasta Kampus Teluk Dalam. Based on the t test results, it is known that the Sig value is  $0.000 < 0.05$ . So  $H_0$  is rejected and  $H_a$  is accepted. So, it can be concluded that there is a significant influence of the problem-based learning model on the learning outcomes of XI Class Citizenship Education at SMA Swasta Kampus Teluk Dalam.

## **4. CONCLUSION**

### **4.1. Conclusion**

Based on the results of the analysis and discussion, it can be concluded that there is an influence of the use of the Problem Based Learning Model on the learning outcomes of XI Class Citizenship Education at SMA Swasta Kampus Teluk Dalam.

### **4.2. Suggestion**

From the conclusions above, the researcher provides the following suggestions:

1. Citizenship Education teachers are expected to be able to apply the Problem Based Learning model and adapt it to the material being taught so that students are more motivated and enthusiastic in learning and can improve their learning outcomes.





2. For other researchers, the author hopes that other research can develop research using the Problem Based Learning learning model systematically and in more depth. To improve learning outcomes, Citizenship Education must be equipped with various adequate facilities.
3. For students, it is hoped that they will be more active in the learning process and have the courage to convey the results of various assignments given by the teacher, so that student learning outcomes can improve even better.

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