

The Effect Of Using Problem-Based Learning (PBL) Model Towards Students' Recount Text Writing Skills at Smp Methodist-9 Medan

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ABSTRACT

This study aims to determine whether the problem-based learning model can significantly influence the ability to write recount texts in grade 8 of Methodist-9 Medan Junior High School. This study used pre-experimental research with one group pre-test post-test design. This research design only looks at students' abilities before and after using a problem-based learning model. The sample of this research was 30 students of grade 8 of SMP Methodist-9 Medan. The data collection technique was conducted by writing test. The result of this study showed that there is an effect of problem-based learning model on the ability of grade 8 students in writing recount text at SMP Methodist-9 Medan. This is proved from the higher average score of students after using the problem-based learning model. The data in this study were also normally distributed. Based on data analysis by using t-test, it was found that T_{count} was 16,50, at 5% significant level, $dk(n-1)=30-1=29$, so $T_{table}=1,70$. It can be concluded that $T_{count} > T_{table}$ ($16,50 > 1,70$). It means that H_0 was rejected and H_a was accepted. It's means that the Problem-Based Learning Model significantly affects the eighth grade students' ability in writing recount text at SMP Methodist-9 Medan.

Keyword: Problem-Based Learning, Recount Text, Writing Skills.

1. Introduction

Language is a tool for human communication and interaction. Language itself includes both spoken and written. With language, humans can express their feelings, ideas, and thoughts. Language is use to express ideas and convey messages (Istiqomah, 2017). As an international language and a quite popular language, English plays a crucial role in facilitating communication between countries with different languages. It serves as a common language for international communication. English has historically been considered a second language. But in other regions of the world, English is a foreign language (Iverson & Dervan, 2022). English is also used in many aspects, such as politics, sports, health, and the others. This is what makes English one of the subjects studied at school.

English is a mandatory subject in Indonesian schools, taught as a foreign language from elementary to university. The curriculum covers pronunciation and the meaning of words, making it similar to learning the native language in Indonesia. Learning English at school is aimed at developing four skills in English, namely listening, reading, speaking, and writing. These four skills are divided into two parts, namely productive skills and receptive skills (Harmer, 1987)

2. Research Methods

The researcher employed quantitative research methods. Quantitative research is the method with numerical numbers and everything that can be evaluated in a methodical way in the investigation of the phenomenon and its relationships, is used to answer questions about the relationship between variables that can be measured to explain, predict, and control a

phenomenon. This research was used a Pre-Experimental (Non-Experimental) design, which Sugiyono (Sugiyono, 2019) described as a one-group pretest-posttest design without any control variables and a randomly selected sample. Used the study form for the one-group pretest-posttest, there is a pretest and posttest so that the effect of the treatment can be calculated by compared the post-test value with the pretest value, if the post-test value is greater than the pre-test, then the treatment has a positive effect, (Sugiyono, 2019).

The procedure for pre-experimental research used a one-group pre-test post-test design is described as follows:

- a. Administering a pre-test to assess the writing proficiency of students before the treatment.
- b. Calculating the pre-test
- c. Summarising the pre-test
- d. Teaching writing using PBL to teach recount text writing (giving treatment).
- e. Giving the post-test to measure students' writing ability after the treatment.
- f. Calculating the post-test results

Summarising the test results Group scores after the pre-test and post-test will be compared, and then evaluated for significant benefits

3. Result and Discussions

1. Research Findings

This research is conducted to determine if utilizing problem-based learning models can affect the skills of students at Methodist-9 Medan Junior High School in writing recount texts. The data for this research include pre-test scores and post-test scores.

a) Pre-Test

Before giving treatment or applying problem-based learning model, the researcher designed a pre-test to assess students' writing ability in recount text. The purpose of this pre-test is to find out students' weaknesses and difficulties. A total of 30 students took the pre-test. The researcher asked the students to write a recount paragraph about an unpleasant incident during a vacation. The paragraph consisted of 50-100 words. The time given was 45 minutes.

From the total number of students, it is clear from the pre-test results that most students have scores below the KKM and are still in the less category. The average student writing score was 68,73.

b) Post-Test

After conducting the treatment on learning, namely the problem-based learning model. Researcher saw that most students had received higher post-test scores compared to the pre-test scores.

The post test scores showed a significant difference after teaching with the problem-based learning model. It can be seen that students who passed or scored above the KKM increased in five assessment indicators than the pre-test scores.

2. Data Analysis

The researcher included a distribution table after the researcher found out the results of students' abilities before and after applying the teaching with a problem-based learning model. This is done to determine the average value, standard deviation, and standard error of the data (pre-test and post-test).

The highest score in the pretest according to the data above was 79. Then, the mean score of the above data was 68,73, the standard deviation was 5,50 and the standard error of the group was 1,02.

1. Calculating the mean score of post-test

$$\bar{X} = \frac{\sum f_1 x_1}{\sum f_1}$$

$$= \frac{2671}{30} = 89,03$$

2. Calculating the Standart Deviation of post-test

$$Dx = \sqrt{\frac{\sum fx^2}{N}}$$

$$Dx = \sqrt{\frac{439,12}{30}} = 3,82$$

3. Calculating the Standart Error of post-test

$$SE_{MX} = \frac{SD_x}{\sqrt{N-1}}$$

$$SE_{MX} = \frac{3,82}{\sqrt{30-1}} = 0,70$$

The highest score in the pretest according to the data above was 97. Then, the mean score of the above data was 89,03, the standard deviation was 3,82 and the standard error of the group was 0,70.

A. Normality Test

1. Pre-Test Group (X)

The researcher employed *Liliefors* test as standart to measure of normality. The highest absolute value (L_{count}) was 0,1888 based on the table above. The critical value (L) was the consulted with L_{count} at level $\alpha = 0,05$. Where $N=30$. So $L_{count} < L_{table}$ (0,1888<0,161) . It proved that the data of variable X were normally distributed.

The results of the normality test above are also proven by testing using SPSS version 20. The results can be seen in the following table:

- a. Test distribution is Normal.
- b. Calculated from data.

2. Post -Test group (Y)

The normality test that the wirtter used was normality test by *Liliefors*.

Based on the table above, the highest value (L_{count}) = 0,4502. Then L_{count} consulted with critical value (L) at level $\alpha=0,05$ (5%). Where $N=30$. So, $L_{count} < L_{table}$ (0,4502<0,161) the data of variable Y were normally distributed.

B. Homogeneity Test

To test the homogeneity, the researcher used the Bartlett's test (Sudjana, 1989) to decide he data was homogen or not.

$$SX^2 = (5,50)^2 = 30,25$$

$$SY^2 = (3,82)^2 = 14,61$$

Degree of freedom (df)

$$df = N - 1$$

$$df = 30 - 1 = 29$$

After obtaining the data needed for Bartlett's test, the researcher calculated the combined variance of all samples' (S^2), the value for B, and utilized statistics chi square (X^2).

1. The combined variance of the sample

$$\begin{aligned}
S^2 &= \frac{\sum(n_i - 1)S_i^2}{\sum(n_i - 1)} \\
&= \frac{(n_x - 1)S_x^2 + (n_y - 1)S_y^2}{(n_x + n_y) - 2} \\
&= \frac{(29)(30,25) + (29)(14,61)}{58} \\
&= \frac{877,25 + 423,69}{58} \\
&= \frac{1.300,94}{58} \\
S^2 &= 22,43 \\
\log S^2 &= \log 22,43 = 1,35
\end{aligned}$$

2. The Value for B

$$\begin{aligned}
B &= \log S^2 \sum(n_i - 1) \\
&= (1,35)(58) \\
&= 78,37
\end{aligned}$$

3. Bartlett's Test using chi square

$$\begin{aligned}
X^2 &= \ln 10 \{ B - \sum(n_i - 1) \log S_i^2 \} \\
&= (2,3026)(78,37 - 76,73) \\
&= (2,3026)(1,64) \\
&= 3,7812
\end{aligned}$$

From the calculation above was go that X_{count}^2 (chi square) = 3,7812, X_{table}^2 at the level trust 95% (0,05) with df = 29 was 42,556. That's why, $X_{count}^2 < X_{table}^2$ (3,7812 < 42,556). It proved that the variance of population was homogen.

C. Testing Hypothesis

To test the hypothesis, the researcher used t-test (Sudijono, 2007)

$$\begin{aligned}
t_0 &= \frac{M_1 - M_2}{\frac{SEM_1 - M_2}{1,23}} \\
&= \frac{20,3}{1,23} \\
&= 16,50
\end{aligned}$$

$$\text{So, } T_{count} = 16,50$$

Based on the statistical hypothesis, the researcher testes the following hypothesis:

1. If $T_{count} > T_{table}$: the null hypothesis (Ho) is rejected and alternative hypothesis (Ha) is accepted. So, the application of Problem-Based Learning model affect the eighth grade students' ability in writing recount text at SMP Methodist-9 Medan.
2. If $T_{count} < T_{table}$: the null hypothesis (Ho) is accepted and the alternative hypothesis (Ha) is rejected. So, the application of Problem-based Learning not affect the eighth students' ability in writing recount text at SMP Methodist-9 Medan.

Based on the data above, $T_{count} = 16,50$ at significant level $\alpha = 5\%$, dk (n-1) = (30-1) = 29. So, $T_{table} = 1,70$. It could be concluded that $T_{count} > T_{table}$ (16,50 > 1,70) It mean that Ho was rejected and Ha was accepted. It stated that there was a differences between students' ability before and after application of Problem-Based Learning model.

Based on the result of calculation above that the mean of pre-test and post test it is obtained the $T_{count} = 16,50$ at significant level $\alpha = 5\%$, dk(n-1) = (30-1) = 29, so $T_{table} = 1,70$. It could be concluded that $T_{count} > T_{table}$ (16,50 > 1,70). That is mean the T_{count} is higher than T_{table} . The null hypothesis (Ho) is rejected and alternative hypothesis (Ha) is accepted, because

$T_{count} > T_{table}$. So there is a difference between students score in writing recount text by applying Problem-Based Learning at the eighth grade students of SMP Methodist 9.

The mean of pretest is 68,73, with the lowest score is 61 and the higher is 79. Then, after apply the PBL model the mean of post test is 89,03, with the lowest score is 83 and the higher score is 97. From the above description, the writer can determine whether using the PBL model on students writing recount texts is more effective than not using the PBL model by looking at the pre-test and post-test results. After using the PBL model, it was clear that the students were more engaged in their ability to write recount texts. This researcher is related to some previous research that has been done by Anggit Anggraeni (2019) on her research "The Use of Problem-Based learning Method to Improve Students' Recount Text of Writing Skill of Tenth Grade of SMK Ma'Arif Penajawa Pugung Raharjo of East Lampung". The result of this research shows that Problem Based Learning had a positive role in improving the recount writing skill among The tenth grade of SMK MA'ARIF 2 PENAWAJA PUGUNG RAHARJO. It can be proved by the students' average score from pretest to post-test. The average score in pre-test was 60,5, and in the post, a test was 70,63 became 76,55. The next previous study was by Nofiyanti (Nofiyanti, 2022) on her research "The Use of Problem Based-learning (PBL) in Teaching Writing Recount Text. (One Group Sample Pre-test Post-test at SMA Muhammadiyah 1 Simo in The Academic Year 2021/2022." The result indicated that there is the different ability in writing recount before and after the students were taught using PBL method. It is proven with the increase of mean score, the pre-test mean score is 72.33 lower than the post-test mean score is 89.67. Based on the statistical analysis the t-test value higher than t-table ($7.651 > 2.093$). It means that there is significant difference of the ability in writing recount text before and after they were taught using PBL method. Therefore, it was concluded that using PBL method was proven to teach writing recount text of the tenth-grade students of SMA Muhammadiyah 1 Simo.

The researcher stated that using the PBL model can improve students' ability to write recount texts. This means that to make students interested in following the lesson on the ability to write recount texts in eighth grade students of Methodist-9 Medan Junior High School. Overall, the application of PBL model has a positive impact on increasing students' interest in learning, which can be a provision for the next life.

4. Conclusion

Based on the results of the data analysis in the previous chapter, the researcher found that the score of post-test is higher than pre-test. It is mean that the Hypothesis Alternative (H_a) is accepted and Hypothesis null (H_0) is rejected. So the researcher conclude that Problem-Based Learning (PBL) Model significantly affected on students' ability in writing recount text of eighth grade students at SMP Methodist-9 Medan.

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