THE EFFECT OF PROBLEM BASED LEARNING (PBL) MODEL ON STUDENTS' WRITING REPORT TEXT WITH ASSISTED OUTDOOR LEARNING CLASS MEDIA AT GRADE X OF SMA SWASTA DAERAH AIR JOMAN IN 2023-2024 ACADEMIC YEAR

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Abstract

This research aims to the effect of problem-based learning with the help of outdoor learning class as media on students writing report text. This research is qualitative research. The population in this research all class X students' SMA Swasta Daerah Air Joman total of sample 50 students. Namely class as an experimental class 25 students and another class as a control class 25 students with the sampling technique carried out randomly. There are significant differences in students writing using problem-based learning and without problem-based learning of grade X at SMA Swasta Daerah Air Joman in 2023/2024 Academic Year". The results obtained are T test> T-table (0,05) with df 48. T-test 15,1 > df 2,01. This means, there is a significant difference in the value of the results student learning between classes that apply the problem-based learning and those that do not apply the problem-based learning. So, the problem-based learning is effective and significant on the ability to write English report text.

Keywords: Problem Based Learning, Report Text, Writing

INTRODUCTION

Language and education are two things that are closely related. Language is the main tool of education. On the other hand, education makes an invaluable contribution to the development and maintenance of language. Writing is one of the that must be mastered by learners, because the ability the writing ability of each learner does not can be obtained naturally or inherited from their ancestors. Learners need to be trained seriously from an early age as provision for further education. Based on research observation at SMA Swasta Daerah Air Joman, students' writing process is not optimal. The information obtained based on the observation data is that during the process of writing report texts, students have difficulty in determining the topic idea of the report text, lack of use of learning media by students.

Based on the explanation above, this study is interested in conducting research with the title "The Effect of Problem-Based Learning Model on Students' Writing Report Text with Assisted Outdoor Learning Class Media at Grade X of SMA Swasta Daerah Air Joman. According to M. Atar Semi (2007:14), writing is a creative process of transferring ideas into written symbols. The writing process,

which involves thinking, drafting, and revising, often requires specialized skills that not every speaker possesses. Problem-Based Learning as a learning approach that uses real-world problems as a context for students to learn about critical thinking

and problems problem-solving skills, as well as to gain essential knowledge and essential concepts from the course material or subject matter.

METHOD

This research was conducted in SMA SWASTA DAERAH Air Joman. This school is located on Jl. Pasar XII Air Joman, Binjai Serbangan, Kec. Air Joman, Asahan, North Sumatra. This research is included in the quantitative research. The main characteristic is that the samples used in the experimental and control groups were taken randomly from a certain population. This research used a class X population of 50. Population is the total number of research objects. Population is also defined as a group of people, objects, or things that are the source of sampling, a group that meets the requirements of the research problem. This research uses the PBL strategy with the help of outdoor learning class as media on students writing report text. Here, the receach to the effect of problemt-based learning with the help of outdoor learning class as media students writing report text on class X. This research design is pre-test and post-test, this research design is called pre-test and post-test design.

Sample

The sample is a subgroup of the target population (Creswell, 2012). The sampling technique used is simple random sampling, according to Sugiono (2016: 120), it is said to be simple (simple) because taking sample members from the population is done randomly without regard to the strata in that population. Of the three classes, researchers took only two classes, namely one class as an experimental class and another class as a control class with the sampling technique carried out randomly based on the following steps: Made a roll of paper that said experimental and control, the rest of the roll without information. Instructed students to take one person one roll of paper at random. Those who get a roll with information then they are the sample in this study which was taught the Project-Based Learning (PjBL) learning model for the experimental class and teacher centers for the control class.

Table 1. The Students' Sample

No	Students	Group
1	25	Experimental Group
2	25	Control Group

Test

Creating test questions is another important step in preparation for data collection. According to Arikunto (2010:53) a test is a tool or process used to find out or measure something in a certain situation in a predetermined manner and

according to rules. The test will be in this study was the result of examining the formative data that had been collected. An essay test will be used in this study to collect data. There were two versions of this test: the pre-test and the post-test. Students were asked to write a report text as part of the pre-test. Before receiving the treatment, the students' abilities were assessed using the pre-test. In addition, the post-test was given to assess students' writing ability after they used the PBL learning model. Students who use the problem-based learning (PBL) model will be more motivated to learn and will be trained to solve problems critically. This study utilizes out-of-class learning to help students with their observations. Therefore, students were asked to collaborate with a group of friends to create their observation text to create a report text.

RESULTS AND DISCUSSION

This research was conducted on March 2023. The data were collected by giving test. In this research, the sample was divided into 50 students the data the effect of problem-based learning with the help of outdoor learning class as media students writing report text. In this research, the sample was divided into 2 groups namely experimental group and control group. Each group was given the same test.

The data of the research was purposed to find out the significant the effect of problem-based learning with the help of outdoor learning class as media students writing report text. The research was conducted at X grade of SMA Swasta Daerah Air Joman. The sample was consisting of 25 students as control group and consist of 25 students as experimental group.

Description of the Data

This research was conducted on March-April 2023. The data were collected by giving test. In this research, the sample was divided into 50 students the data the effect of problem-based learning with the without door learning as media on students writing report text. In this research, the sample was divided into 2 groups namely experimental group and control group each group was given the same test.

The data of the research was purposed to find out the significant effect of problem-based learning on students writing report text. The research was conducted at the grade ten of SMA SWASTA DAERAH Air Joman. The sample was consisting of 25 students as control group and consist of 25 students as experimental group.

The Data of Experimental Group and Control Group

This table below showed the student's score in pre-test and post-test in Experimental group and the student's score in pre-test and post-test in Control group.

Table 2. The Scoring of Pre-Test and Post-Test of Control Group

NO	Students' Initial	Score of Pre-Test (X)	Score of Post-Test (Y)	Y-X

1	AL	36	48	16
2	ASN	40	44	8
3	BK	40	48	8
4	CA	36	44	12
5	DA	36	48	16
6	DAF	32	40	12
7	FJ	36	48	12
8	PA	32	40	8
9	PT	32	44	12
10	RI	40	48	8
11	RRP	32	36	4
12	RJP	40	48	8
13	SKN	36	40	12
14	SMS	40	48	8
15	SF	32	36	4
16	SP	40	48	8
17	MP	36	40	8
18	KN	36	40	4
19	LT	36	40	4
20	MR	40	48	8
21	NP	40	48	8
22	TF	40	48	8
23	TA	36	40	4
24	YM	40	48	8
25	YO	36	40	4
	Total	**920**	**1100**	**212**
	Mean	**36.8**	**44**	**8.48**

Based on the table above, it can be seen that the Pre-Test score in the control group was the highest with a score of 48 and the lowest values with a score of 32.

From the data above, it can be seen that highest and lowest values in the Pre-Test are:

a. Students who got 40 score was 10 students, they are ASN, BK, RI, RJP, SMS, SP, MR, NP, TF, YM.
b. Students who got 36 score was 10 students, they are AL, CA, DA, FJ, SKN, MP, KN, LT, TA, YO.
c. Students who got 32 score was 5 students, they are DAF, PA, PT, RRP, SF.

From the data above, it shown that the highest and the lowest score in Post- Test was:

a. Students who got 48 score was 12 students, they are AL, BK, DA, FJ, RI, RJP, SMS,SP, MR, MP,TF, YM.
b. Students who got 44 score was 3 students, they are ASN, CA, PT.
c. Students who got 40 score was 8 students, they are DAF, PA, SKN, MP, KN, LT, TA, YO.

d. Students who got 36 score was 2 students, they are RRP, SF.

Table 3. The Scoring of Pre-Test and Post-Test of Eksperimental Group

NO	Students' Initial	Score of Pre-Test (X)	Score of Post-Test (Y)	Y-X
1	AM	32	72	28
2	AF	24	56	32
3	AN	36	76	40
4	AP	32	56	24
5	ARM	36	72	24
6	ASM	28	64	36
7	BB	32	68	36
8	DK	36	60	24
9	DS	40	76	36
10	EFP	24	68	44
11	ESN	32	60	28
12	FK	40	72	32
13	HR	36	64	28
14	IKP	32	72	36
15	MA	40	76	36
16	MGP	40	72	32
17	MP	32	64	32
18	MRA	40	76	36
19	NN	36	72	28
20	PIN	36	64	28
21	RFR	24	68	44
22	RH	36	72	28
23	RMF	40	76	36
24	RS	32	68	36
25	RW	24	56	32
	Total	**840**	**1700**	**816**
	Mean	**33.6**	**68**	**32.64**

Based on the table above, it can be seen that the Pre-Test score in the Experimental group was the highest with a score of 40 and the lowest values with a score of 24.

From the data above, it can be seen that highest and lowest values in the Pre-Test are:

a. Students who got 40 score was 6 students, they are DS, FK, MA, MGP, MRA, RMF.
b. Students who got 36 score was 7 students, they are AN, ARM, DK, HR, NN, PIN, RH.
c. Students who got 32 score was 7 students, they are AM, AP, BB, ES, IKP, MP, RS.

d. Students who got 28 score was 1 students, they are ASM.
e. Students who got 24 score was 4 students, they are AF, EFP, RFR, RW.

From the data above, it shown that the highest and the lowest score in post-test was:

a. Students who got 76 score was 5 students, they are AN, DS, MA, MRA, MKR.
b. Students who got 72 score was 7 students, they are AM, ARM, FK,IKP , MGP, NN, RH.
c. Students who got 68 score was 4 students, they are BB, EFP, RFR, RS.
d. Students who got 64 score was 4 students, they are ASM, HR, MP, PIN.
e. Students who got 60 score was 2 students, they are DK, ESN.
f. Students who got 56 score was 3 students, they are AF, AP, RW.

Table 4. The Mean Standard Deviation Calculation Experimental Group

NO	Students' Initial	Score (X)	X^2	Da (X-Mx)	Da^2
1	AM	72	5184	4	16
2	AF	56	3136	-12	144
3	AN	76	5776	8	64
4	AP	56	3136	-12	144
5	ARM	72	5184	4	16
6	ASM	64	4096	-4	16
7	BB	68	4624	0	0
8	DK	60	3600	-8	64
9	DS	76	5776	8	64
10	EFP	68	4624	0	0
11	ESN	60	3600	-8	64
12	FK	72	5184	4	16
13	HR	64	4096	-4	16
14	IKP	72	5184	4	16
15	MA	76	5776	8	64
16	MGP	72	5184	4	16
17	MP	64	4096	-4	16
18	MRA	76	5776	8	64
19	NN	72	5184	4	16
20	PIN	64	4096	-4	16
21	RFR	68	4624	0	0
22	RH	72	5184	4	16
23	RMF	76	5776	8	64
24	RS	68	4624	0	0
25	RW	56	3136	-12	144
	Total	**1700**	**116656**	**0**	**1056**
	Mean = 68				
	$\sum X^2 = 116656$				

Table 5. The Mean Standard Deviation Calculation Experimental Group.

NO	Students' Initial	Score (Y)	Y^2	Db (Y-My)	Db^2
1	AL	48	2304	4	16
2	ASN	44	1936	0	0
3	BK	48	2304	4	16
4	CA	44	1936	0	0
5	DA	48	2304	4	16
6	DAF	40	1600	-4	16
7	FJ	48	2304	4	16
8	PA	40	1600	-4	16
9	PT	44	1936	0	0
10	RI	48	2304	4	16
11	RRP	36	1296	-8	64
12	RJP	48	2304	4	16
13	SKN	40	1600	-4	16
14	SMS	48	2304	4	16
15	SF	36	1296	-8	64
16	SP	48	2304	4	16
17	MP	40	1600	-4	16
18	KN	40	1600	-4	16
19	LT	40	1600	-4	16
20	MR	48	2304	4	16
21	NP	48	2304	4	16
22	TF	48	2304	4	16
23	TA	40	1600	-4	16
24	YM	48	2304	4	16
25	YO	40	1600	-4	16
	$\sum$	1100	48848	0	448
	Mean = 44				
	$\sum X^2 = 48848$				

Table 4.9 The Data for Finding Product Moment Collleration

NO	Students' Initial	X_1	X_1^2	X_2	X_2^2	Y (X_1+X_2)	X_1Y	X_2Y	Y^2
1	AM	32	1024	36	1296	68	2176	2448	4624
2	AF	24	576	40	1600	64	1536	2560	4096
3	AN	36	1296	40	1600	76	2736	3040	5776
4	AP	32	1024	36	1296	68	2176	2448	4624
5	ARM	36	1296	36	1296	72	2592	2592	5184
6	ASM	28	784	32	1024	60	1680	1920	3600
7	BB	32	1024	36	1296	68	2176	2448	4624
8	DK	36	1296	32	1024	68	2448	2176	4624
9	DS	40	1600	32	1024	72	2880	2304	5184

10	EFP	24	576	40	1600	64	1536	2560	4096
11	ESN	32	1024	32	1024	64	2048	2048	4096
12	FK	40	1600	40	1600	80	3200	3200	6400
13	HR	36	1296	36	1296	72	2592	2592	5184
14	IKP	32	1024	40	1600	72	2304	2880	5184
15	MA	40	1600	32	1024	72	2880	2304	5184
16	MGP	40	1600	40	1600	80	3200	3200	6400
17	MP	32	1024	36	1296	68	2176	2448	4624
18	MRA	40	1600	36	1296	76	3040	2736	5776
19	NN	36	1296	36	1296	72	2592	2592	5184
20	PIN	36	1296	40	1600	76	2736	3040	5776
21	RFR	24	576	40	1600	64	1536	2560	4096
22	RH	36	1296	40	1600	76	2736	3040	5776
23	RMF	40	1600	36	1296	76	3040	2736	5776
24	RS	32	1024	40	1600	72	2304	2880	5184
25	RW	24	576	36	1296	60	1440	2160	3600
	$\sum$	840	28928	920	34080	1760	59760	64912	124672

X_1 = The Score of Experimental Group Test

X_2 = The Score of Control Group Test

Analyzing the Data by Using T-Test Formula

From table 4.3 through 4.6 can be analyzed that

1. The highest and the lowest score of the pre-test experimental group were 40 and 24 score, while the highest and the lowest score of the post-test experimental group were 76 and 56 score, so it was higher than in pre-test.
2. The highest and the lowest score of the pre-test control group were 40 and 32 score, while the highest and the lowest score of the post-test control group were 48 and 36 score, so it was higher than in pre-test.
3. The total score of pre-test experimental group is 840 and in pre-test of control group is 920. So, the total score of pre-tests of control group is higher than the pre-test of experimental group.
4. The total score of post-tests of experimental group is 1700 and in post-test of control group is 1100 So the total score of post-tests of experimental group is higher than the post-test of control.

The data was analyzed by t-test, finally the significant of the sum, the t-test and t-table would be compared with the degree of freedom (df) of the test, the test as follow:

$$t = \frac{M_x - M_y x^2}{\sqrt{\left(\frac{Da^2 + Db^2}{N_x + N_y - 2}\right)\left(\frac{1}{N_x} + \frac{1}{N_y}\right)}}$$

Where:

Mx = Mean of experimental group

My = Mean of control group

Da = The standard deviation score of experimental group

Db^2 = The standard deviation score of control group

Nx = The total number sample of experimental group

Ny = The total number sample control group

Have know that:

$$
\begin{aligned}
&\text{Mx} &&: 68 \\
&\text{My} &&: 44 \\
&\text{Da}^2 &&: 1056 \\
&\text{Db}^2 &&: 448 \\
&\text{N} &&: 25 \\
&\text{N} &&: 25
\end{aligned}
$$

So, that formula is used to analyze the data which is shown below:

$$t = \frac{68 - 44}{\sqrt{\left(\frac{1056 + 448}{25 + 25 - 2}\right)\left(\frac{1}{25} + \frac{1}{25}\right)}}$$

$$t = \frac{24}{\sqrt{\left(\frac{1056}{48}\right)\left(\frac{2}{25}\right)}}$$

$$t = \frac{24}{\sqrt{(31,33)(0,08)}}$$

$$t = \frac{24}{\sqrt{2,5064}}$$

$$t = \frac{24}{1,58}$$

$$t = 15,1$$

So, t-test or t- $_{counting}$ = 15,1

To know degree of freedom (df) is used the formula:

$$\boxed{N_1 + N_2 - 2}$$

Df = 25-25-2

Df = 48...?

Df is shown in the list of t-table out df is:

So Distribution of table 48 = 2.01

The Hypothesis Testing

The hypothesis testing is, the basic criteria for drawing the mathematical predictions about situation. It is basically concentrating particular result about a particular situation. After analyzing the data into T-test, the calculation of the score by using t- test for degree of freedom (df) 48 at level significance 0,05 where the T-test critical value is 2,01. The result of computing the T-test shown that T-test is higher than T-table- or it can be seen that T-test> T-table with a significant value of 0.05 and df is 48, with a t-table value of 2.01.

So, this research had been successfully, Ha is accepted and it revealed that hypothesis using problem-based learning in writing report text is affective because using problem-based learning.

Discussion

This research was conducted to determine the effect of problem-based learning in students speaking Skill between the experimental class and the control class in class X English learning material on report text. As for things examined in this study is about students' writing ability. The form of the instrument used in testing students' writing skills in the form of an essay test Prior to use, this instrument was first questioned tested by content validity. With matter meet these criteria, can be used as an instrument in research After test items, all items meet the criteria as valid and reliable instrument. After that, research was carried out using the problem-based learning then the results of research can be known. Research result it is known that the average learning outcomes of students who apply the problem-based learning is 68. While the average yield student learning in classes that de not apply the problem-based learning, namely 44. The average value of learning outcomes proves that in classes that apply the problem-based learning more high level of the class that does not apply problem-based learning.

From the statistical measurement above shown that Ho (Null Hypothesis) is not accepted or rejected; Ha (Alternative Hypothesis) is accepted, because value of t-count is higher than of t-table. It means:

1. "There is significant in students writing report text using problem-based learning between pre-test and post-test in class X " Research result it is known that the average learning outcomes of experimental class, from score pre-test and post-test. Score Pre-test students who apply the problem-based learning is

33,6. While the score post-test who apply the problem-based learning students is 36,8.

2. "There are significant differences in students writing using problem- based learning and without problem-based learning of grade X at SMA Swasta Daerah Air Joman in 2023/2024 Academic Year". The results obtained are T-test > T-table (0,05) with df 48. T-test 15,1> ef 2,01. This means, there is a significant difference in the value of the results student learning between classes that apply the problem-based learning and those that do not apply the problem-based learning. So, the problem-based learning is effective and significant on the ability to write English report text material.

CONCLUSION

There are significant differences in students writing using problem- based learning and without problem-based learning of grade X at SMA Swasta Daerah Air Joman in 2023/2024 Academic Year". The results obtained are T-test > T-table (0,05) with df 48. T-test 15,1> ef 2,01. This means, there is a significant difference in the value of the results student learning between classes that apply the problem-based learning and those that do not apply the problem-based learning. So, the problem-based learning is effective and significant on the ability to write English report text material.

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