

The Effect of Problem Based Learning on Students' Ability in Writing Descriptive Text at Grade VII Students of SMP Negeri 2 Tebing Tinggi

Shyndi Putri Glean

shyndiputriglean@gmail.com

Abstract

This research is the study of teaching students' ability in writing descriptive text at grade seven in SMP Negeri 2 Tebing Tinggi. It deal with the Problem Based Learning (PBL) method in teaching writing descriptive text at grade VII of SMP Negeri 2 Tebing Tinggi". The researcher uses some theories to complete this thesis, they were: Heaton (1981), Indonesian Educational Department (2013), Keraf (2000), Kane (2002), Dutch (1995). This research, Uses experimental design which consist of post-test to know the effect of using PBL on students' writing ability. The sample divided into 2 groups. They are experimental group and control group. In this research there were 60 students divided into two classes. Every group had 30 students in experimental group and 30 students in control group. After the data had been analyzed, the Alternative hypothesis (Ha) is accepted and Null hypothesis (Ho) is rejected. It shows that t-obtained value is higher than t-table ($2.68 > 1.67$). It means that PBL more significant affect on the students' ability in writing descriptive text than without using PBL. Consequently the researcher suggests PBL method to the teacher in learning process especially in teaching writing descriptive text, because PBL is one of teaching method that make the students easier to write a text.

Key words – *Problem Based Learning (PBL), Writing, Descriptive Text*

1. Introduction

Nowadays, as a universal language, English was being spoken all over the world. People used it as a tool for international communication that enabled them to interact with others from different language countries. English language teaching in Indonesia has endured several changing. The changing was aimed as an effort to outcomes of teaching English itself.

In learning, English had four skills such as speaking, reading, listening, and writing. Among the four language skills, writing was one of the language skills, besides listening, speaking and reading that must be mastered by English learners. They had to able to express their thoughts in writing to develop their ideas, and make readers interested when their writing read. Through writing, they can also transfer information and knowledge to others. In other words, writing could be said as a mean of communication between the researcher and the reader. According to Heaton (1981:138), writing is more complex and difficult for teaching, requiring and mastering not only of grammatical and rhetorical devices but also conceptual and judgment. From Heaton's opinion, it can be concluded that writing was very important subject because it trains us to share ideas from our brain. It was not easy to translate concept in our brain to be a written language.

Since writing the most difficult process in language, student had to study hard to be able to written effectively. There were some reasons which made writing difficult. Frist, writing requires good grammar. A non-native person had to remember a large number of rules in structures which are quite different from their own language. Second, people are often known

to spend less time to write than to listen, to speak, and even to read. Third, when students of English as a foreign language write something, they have a big question in mind whether what they write is correct or incorrect. In the process of learning in the classroom until now still find a learner who positions learners as learning object, not as individuals who have to develop their potential. It can turn off potential learners. And in those circumstances learners just listen to the teacher's speech in front of the class, so easy learners feel bored with the material provided. As a result, learners do not understand what the teacher just said.

Based on Curriculum 2013, current educational Curriculum in Indonesia, there are three genres of monolog text that have to be taught in teaching writing for Junior High School students. These genres of text are descriptive, recount, and procedure text (Depdiknas, Indonesian Educational Department, 2013:70). Each genre of text has different function and features which may give difficulties to the students.

According to Keraf (2000:352) descriptive text creates an impression in reader's mind of event, a place, a person or thing, the writing will be such that it will set a mood or describe something in such detail that if the reader saw it, they would recognize it, descriptive text will bring words to life and makes the text interesting. However, student make clear description in order to make the reader can image the object that being describe such as a student describe about their class.

The purpose of descriptive text is so that people who read it can be as though seeing the object itself. The terms descriptive writing ability means the ability of the students to write a descriptive essay based on the given topics. So, the experiment will be focused on applying the Problem Based Learning teaching method in teaching writing descriptive text.

In order to increase the student writing ability especially in descriptive text, the researcher suggests that the using Problem Based Learning teaching method as a new strategy. According to Duch (1995:201) Problem Based Learning is teaching method characterized by real problems as a context for learners to learn critical thinking and knowledge problems. The reason for using this method is based on the assumption that by applying this learning strategy, it is known that writing skills, in this case descriptive text, can ease effectively.

Based on the background above, the research question is formulated as follows : does the application of Problem Based Learning significantly affect the students ability in writing descriptive text at grade VII of SMP Negeri 2 Tebing Tinggi ?

The objective of the research will be about to find out if the application of the Problem Based Learning (PBL) significantly affects the students' ability in writing descriptive text at grade VII students of SMP Negeri 2 Tebing Tinggi.

The Hypothesis of the research is proposed in terms of alternative hypothesis (Ha) and null hypothesis (Ho).

Ha : The application of Problem Based Learning significantly affects the students' ability in writing descriptive text at grade VII students of SMP Negeri 2 Tebing Tinggi.

Ho : The application of Problem Based Learning does not significantly affect the students' ability in writing descriptive text at grade VII students of SMP Negeri 2 Tebing Tinggi.

2. Methodology

In this research, the researcher uses experimental research. Research methodology is a set of method, which is well prepared to organize, is a research in order to achieve, the purpose of the research. This research is the implementation of Problem Based Learning in teaching English writing for Junior High School in Tebing Tinggi. The design used in this research is quantitative. In quantitative research, the data uses predominantly quantitative data is the data in the measurement using the statistical formula and the results are the numbers. The researcher decided to use two groups, the experimental group and control group. The design of the research can be seen :

<i>GROUP</i>	<i>PRE-TEST</i>	<i>TREATMENT</i>	<i>POST-TEST</i>
Experimental	X ₁	-	X ₂
Control	Y ₁	√	Y ₂

- X₁ : Pre-test for experimental group
- Y₁ : Pre-test for control group
- √ : Receiving particular treatment
- : without particular treatment
- X₂ : Post-test for experimental group
- Y₂ : Post-test for control group

Based on Ary (2010:148), “a population is defined as all members of any well-defined class of people, events, or objects”. In this research the researcher will took students of SMP NEGERI 2 Tebing Tinggi. There were 8 classes (VII-1 up to VII-8) and sum of the students are 243. According to Ary (2010:148) said, sample is a portion of a population. In this research, the researcher took two classes as the sample of the research, one class as the experimental class and one class as control class. In obtaining the sample, the researcher chooses it randomly. Random sampling was the best single way to get representative sample in which each subject had the same opportunity to be selected. So, the researcher took 2 classes to be research where experimental class consists of 30 students (VII-2), and control class consist of 30 students (VII-1) and the sums of the students are 60.

Instrument is device or means used for collecting data. In order to get data for this research, the researcher will give test. The test is about writing descriptive text. The first test is writing descriptive text without using Problem Based Learning. The second test is writing descriptive text by using Problem Based Learning that will be prepared by the researcher, in collecting data, the students make composition writing descriptive text by using Problem Based Learning. According to Arikunto (2006:57) the instrument is used to collect the data should be valid and reliability. On the other hand, the test is called good as measurement of shall be valid and reliability. In the instrument for collecting data there are three techniques. The first is pre-test. In the pre-test the students write the descriptive text without using Problem Based Learning. The second is treatment. In the treatment it is teaching learning process the students are listening and giving attention then, the teacher practicing an activity that related to the topic.

And then, the teacher tell about own experience. After that, the teacher explains about definition of descriptive text. The third is post-test. In the post-test the student will write the descriptive text by using Problem Based Learning but will be given by the researcher.

3. Findings and Discussion

The data was taken after applying the pre-test, treatment, and post-test to experimental and control group. In experimental group there are 30 students and in control group there are 30 students. The result of data analysis in teaching writing descriptive text by using Problem Based Learning was presented in the following table below.

1. Result Score of Pre-test and Post-test of Experimental Group

The table below shows the result of pre-test and post-test score of experimental group. X_1 means pre-test and X_2 means post-test. Table " X_1^2 " means score of pre-test is squared. Whereas, table " X_2^2 " means score of post-test is squared. After acquiring value of X_1^2 and X_2^2 . From the table, the researcher got the sum of items scores Pre-Test (X_1) was 1820, the sum of items scores Post-Test (X_2) was 2221. The sum of X_1^2 was 111668, the sum of X_2^2 was 165211.

Pre-test and Post-test of Experimental Group

NO	Name of Students	X_1	X_2	X_1^2	X_2^2
1	AMMK	45	62	2025	3844
2	AAP	63	81	3969	6561
3	AR	57	77	3249	5929
4	ASD	61	74	3721	5476
5	AS	63	76	3969	5776
6	DAS	61	81	3721	6561
7	DSA	52	71	2704	5041
8	IKDM	63	73	3969	5329
9	IM	65	74	4225	5476
10	LE	55	68	3025	4624
11	LNW	54	62	2916	3844
12	MRS	61	71	3721	5041
13	MF	66	70	4356	4900
14	MFA	67	78	4489	6084
15	MHA	60	76	3600	5776
16	MNS	62	77	3844	5929
17	MRS	64	74	4096	5476
18	MR	67	71	4489	5041
19	NE	67	76	4489	5776
20	NBSS	73	83	5329	6889
21	NS	48	71	2304	5041
22	NR	55	68	3025	4624

23	RV	47	70	2209	4900
24	S	63	72	3969	5184
25	SW	68	74	4624	5476
26	SNA	63	77	3969	5929
27	VG	66	74	4356	5476
28	YNA	59	80	3481	6400
29	ZANS	65	78	4225	6084
30	ZA	60	82	3600	6724
TOTAL		$\sum X_1 =$ 1820	$\sum X_2 =$ 2221	$\sum X_1^2 =$ 111668	$\sum X_2^2 =$ 165211

2. Result Score of Pre-test and Post-test of Control Group

The table below shows the result of pre-test and post-test score of experimental group. Y_1 means pre-test and Y_2 means post-test. Table " Y_1^2 " means score of pre-test is squared. Whereas, table " Y_2^2 " means score of post-test is squared. After acquiring value of Y_1^2 and Y_2^2 . From the table, the researcher got the sum of items scores Pre-Test (Y_1) was 1437, the sum of items scores Post-Test (Y_2) was 1740, the sum of Y_1^2 was 69079, the sum of Y_2^2 was 101698.

Pre-test and Post-test of Control Group

NO	Name of Students	Y1	Y2	Y1 ²	Y2 ²
1	APS	50	63	2500	3969
2	AJS	46	50	2116	2500
3	CCS	44	55	1936	3025
4	DF	47	52	2209	2704
5	DRIS	42	49	1764	2401
6	ENS	43	52	1849	2704
7	ELS	44	58	1936	3364
8	EUBH	46	53	2116	2809
9	FT	50	57	2500	3249
10	FHL	50	65	2500	4225
11	GYN	47	56	2209	3136
12	HS	49	56	2401	3136
13	HPS	47	61	2209	3721
14	HSHL	47	55	2209	3025
15	HYH	51	64	2601	4096
16	IJT	50	61	2500	3721
17	IBTT	53	68	2809	4624
18	JB	43	55	1849	3025

19	JAS	50	57	2500	3249
20	JLS	47	56	2209	3136
21	JFP	53	61	2809	3721
22	JKB	50	63	2500	3969
23	RFRB	48	60	2304	3600
24	RS	52	64	2704	4096
25	RFV	49	60	2401	3600
26	RS	47	51	2209	2601
27	SMPS	49	53	2401	2809
28	SY	48	55	2304	3025
29	S	50	67	2500	4489
30	YF	45	63	2025	3969
		$\Sigma Y1 =$	$\Sigma Y2 =$	$\Sigma Y1^2 =$	$\Sigma Y2^2 =$
Total		1437	1740	69079	101698

The Analysis of Data by Using T-Test Formula

To find out how much the effect of students in writing descriptive text by using Problem Based Learning method on the learner's English mastery especially in writing, the data had been calculated by using T-test formula as follows:

Table T-Test in Experimental Group

NO	Name of Students	X_1	X_2	D $(X_2 - X_1)$	d^2 $(X_2 - X_1)^2$
1	AMMK	45	62	17	289
2	AAP	63	81	18	324
3	AR	57	77	20	400
4	ASD	61	74	13	169
5	AS	63	76	13	169
6	DAS	61	81	20	400
7	DSA	52	71	19	361
8	IKDM	63	73	10	100
9	IM	65	74	9	81
10	LE	55	68	13	169
11	LNW	54	62	8	64
12	MRS	61	71	10	100
13	MF	66	70	4	16
14	MFA	67	78	11	121
15	MHA	60	76	16	256
16	MNS	62	77	15	225

17	MRS	64	74	10	100
18	MR	67	71	4	16
19	NE	67	76	9	81
20	NBSS	73	83	10	100
21	NS	48	71	23	529
22	NR	55	68	13	169
23	RV	47	70	23	529
24	S	63	72	9	81
25	SW	68	74	6	36
26	SNA	63	77	14	196
27	VG	66	74	8	64
28	YNA	59	80	21	441
29	ZANS	65	78	13	169
30	ZA	60	82	22	484
TOTAL		$\sum X_1 =$ 1820	$\sum X_2 =$ 2221	$\sum d =$ 401	$\sum d^2 =$ 6239

$$M_x = \frac{\sum d}{N} = \frac{401}{30}$$

$$M_x = 12.83$$

$$\sum X^2 = \sum d^2 - \frac{(\sum d)^2}{N}$$

$$\sum X^2 = 6239 - \frac{(401)^2}{30}$$

$$\sum X^2 = 6239 - \frac{160801}{30}$$

$$\sum X^2 = 6239 - 5360$$

$$\sum X^2 = 879$$

Table T-Test in Control Group

NO	Name of Students	Y ₁	Y ₂	d (Y ₂ - Y ₁)	d ² (Y ₂ - Y ₁) ²
1	APS	50	63	13	169
2	AJS	46	50	4	16
3	CCS	44	55	11	121
4	DF	47	52	5	25
5	DRIS	42	49	7	49
6	ENS	43	52	9	81
7	ELS	44	58	14	196

8	EUBH	46	53	7	49
9	FT	50	57	7	49
10	FHL	50	65	15	225
11	GYN	47	56	9	81
12	HS	49	56	7	49
13	HPS	47	61	14	196
14	HSHL	47	55	8	64
15	HYH	51	64	13	169
16	IJT	50	61	11	121
17	IBTT	53	68	15	225
18	JB	43	55	12	144
19	JAS	50	57	7	49
20	JLS	47	56	9	81
21	JFP	53	61	8	64
22	JKB	50	63	13	169
23	RFRB	48	60	12	144
24	RS	52	64	12	144
25	RFV	49	60	11	121
26	RS	47	51	4	16
27	SMPS	49	53	4	16
28	SY	48	55	7	49
29	S	50	67	17	289
30	YF	45	63	18	324
Total		$\Sigma Y_1 =$ 1437	$\Sigma Y_2 =$ 1740	$\Sigma d = 303$	$\Sigma d^2 = 3495$

$$M_Y = \frac{\Sigma d}{N} = \frac{303}{30}$$

$$M_Y = 10.1$$

$$\Sigma Y^2 = \Sigma d^2 - \frac{(\Sigma d)^2}{N}$$

$$\Sigma Y^2 = 3495 - \frac{(303)^2}{30}$$

$$\Sigma Y^2 = 3495 - \frac{91809}{30}$$

$$\Sigma Y^2 = 3495 - 3060.3$$

$$\Sigma Y^2 = 434.7$$

The means of experimental group was higher than that of the control group (13.37 – 10.1 = 3.27), the two means of both experimental and control group were different. If this difference can show that t-test is greater than t-table, that it is significant. The test formula was applied as follows:

$$M_x = 13.37 \quad \sum x^2 = 879 \quad N_x = 30$$

$$M_y = 10.1 \quad \sum y^2 = 434.7 \quad N_y = 30$$

$$t = \frac{M_x - M_y}{\sqrt{\left(\frac{\sum X^2 + \sum Y^2}{N_x + N_y - 2}\right) \left(\frac{1}{N_x} + \frac{1}{N_y}\right)}}$$

$$t = \frac{13.37 - 10.1}{\sqrt{\left(\frac{879 + 434.7}{30 + 30 - 2}\right) \left(\frac{1}{30} + \frac{1}{30}\right)}}$$

$$t = \frac{3.27}{\sqrt{\left(\frac{1313.7}{58}\right) \left(\frac{2}{30}\right)}}$$

$$t = \frac{3.27}{\sqrt{(22.65)(0.066)}}$$

$$t = \frac{3.27}{\sqrt{1.4949}}$$

$$t = \frac{3.27}{1.22}$$

$$t\text{-test} = 2.68$$

After gaining the result of t-test = 2.68 the researcher calculated the degree of freedom (df) with the formula as follows:

$$\begin{aligned} df &= (N_x + N_y - 2) \\ &= 30 + 30 - 2 \\ &= 58 \end{aligned}$$

After compared to that t-table in 5% = 1.67 and df = 58. The value of t-test was higher than t-table (t-test > t-table) = 2.68 > 1.67. From the result of the test, the effect of using Problem Based Learning on students' ability in writing descriptive text at grade seven students of SMP Negeri 2 Tebing Tinggi more significant. So, the hypothesis alternative (Ha) is **accepted**.

4. Conclusion

Having analyzed the data presented in previous chapter, the researcher draws some conclusions. From the research, the researcher can get some conclusions as follows:

1. There is significant effect of using Problem Based Learning teaching method in writing descriptive text at grade VII students of SMP Negeri 2 Tebing Tinggi.
2. Based on the analysis of the data, the alternative hypothesis (H_a) in this study is accepted.
3. Problem Based Learning teaching method can help the grade seven students in SMP Negeri 2 Tebing Tinggi in getting or developing the ideas of their writing and finding the appropriate contents, organization and vocabularies for their writing, especially in writing descriptive text.

Reference

- Arikunto, S. 2010. *Prosedur Penelitian*. Jakarta: Bineka Cipta
- Ary, D et.al. 2010. *Introduction to Research in Education*. Eighth Ed. Canada: Nelson Education, Ltd.
- Kementrian Pendidikan dan Kebudayaan. 2013. *Kurikulum 2013 Untuk Sekolah Menengah Pertama/Madrasah Tsanawiyah*
- Duch, B. J. 1995. *What is problem-based learning?* Retrieved October 1, 2007, from <http://www.udel.edu/pbl/cte/jan95-what.html>
- Keraf, G. 2000. *Eksposisi dan Deskripsi*. Jakarta: Gramedia.
- Banjarnahor, 2012. Improving Students' achievement in Writing Descriptive Paragraph through Mind Mapping Technique in Junior High School. Medan, State University of Medan.
- Brown, H.D. 2003. *Language Assessment: Principles and Classroom Practices*. San Fransisco: Longman.
- Jones, Anthony S. 1979. *Strategies For Teaching Manufactured in The United States of America*
- Borg, W.R. and Gall, M.D. 1983. *Educational Research*. New York: Longman.
- Brown, H. Douglas. 2000. *The Principle of Language Learning and Teaching*. San Fransisco Longman