IMPROVING READING COMPREHENSION OF THE SECOND YEAR STUDENTS THROUGH RECIPROCAL TECHNIQUE

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Abstract

The objective of this research was to find out the use of Reciprocal Technique could improve students' reading comprehension of the second year students of SMP Negeri 7 Palu. This research used quasi experimental research design in which the two classes received pre-test and post-test. The population was the second year students of SMP 7 Palu. The sample was selected by using cluster random technique. Class VIII B with 24 students was the experimental group and class VIII A with 25 students was the control group. In collecting the data, the researcher used observation and test. The observation was conducted before the pre-test and the test was used twice as pre-test and post-test in the experimental and the control groups. The data were analyzed statistically. Having analyzed the data, it was revealed that there were different scores obtained by the control group and the experimental group. In other words, the t-counted (6.93) is greater than t-table (2.014). It means that Reciprocal Technique can be used to improve the reading comprehension of the second year students of SMP Negeri 7 Palu.

Keywords: Reciprocal; Reading; Reading Comprehension

INTRODUCTION

English language is the most widely used language around the world. Everybody knows that language is one of the ways to communicate. Because English is an important language, it becomes compulsory subject in Indonesia from junior high school up to university level. The implementation of English teaching at present is based on the content standard. Its aim is to make the students be able to reach an informational level of literacy.

Reading comprehension is extremely important because it gives significant contribution to students to perform their communication skill better. In other words, by having insufficient ability in understanding texts, students will find difficulties to master language skills. Reading comprehension is a complex process in which the readers have to put on their ability to comprehend or to understand the meaning from written text. In their daily life, students are always related to the written or printed words, for instance: text books, magazines,

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newspapers, announcements, letters, even advertisements. By reaching good reading comprehension, the students can catch the information given by the writer well. Regarding to the usefulness of reading, the students are expected to master this skill.

Reading a scientific book especially English text is considered difficult for students. Most students only read a text without understanding what the content of the text is about. It cannot be denied that people do not get anything of what has been read. It happens because they have lack of vocabulary and as the result they do not understand it. The common reason is also due to lack of vocabulary items practiced in class. The students usually complained of the length of the text provided by the teacher.

There were some problems faced by the students of SMP Negeri 7 Palu in comprehending the reading text. Firstly, most of them have lack of vocabulary. Vocabulary is one of the language components that cannot be avoided in comprehending reading text. Therefore, if the students have limited stocks of vocabulary and grammar mastery, they will get difficulty to understand the passage. Secondly, the students have difficulty to find out the meaning of some words because they have multiple meanings, therefore, they get confused to catch the meaning. Thirdly, they pay attention to the literal meaning of one by one word only rather than understand the whole sentences contextually. Then they spend much time to accomplish the assignments. They do not know how to make their time efficient. Another problem is that they usually got bored when studying in the class. When teaching the students about reading comprehension, most teachers sometimes ask the students to read the reading text and then to answer the questions which are provided in the text book. As the result, the students have insufficient ability in reading comprehension because the teacher never train them to comprehend the reading text as good as possible.

The factors above were the problem faced by the students of SMP Negeri 7 Palu that had to be overcome. Helping the students to handle this problem was the obligation of English teachers. The English teachers need to create appropriate and joyful techniques to improve their students' reading comprehension. Through this research, the researcher conducted one technique that can be used to improve students' reading comprehension. Reciprocal technique is one of the techniques in teaching reading comprehension that involves the group of students to do the tasks in order to comprehend the text. Reciprocal technique is a cooperative reading strategy that engages teams of students in predicting, questioning, clarifying, and summarizing (Palinscar and Brown, 1984).The reason for choosing this technique was that the researcher considers this technique would be very useful to help the students to comprehend the content of reading text.

Based on the statements above, the researcher formulated a research question as follows: *can the use of reciprocal technique improve reading comprehension of the second year students of SMP Negeri 7 Palu?* It was to find out that reciprocal technique can improve students' reading comprehension of the second year students of SMPN 7 Palu.

METHODOLOGY

In this research, the researcher used quasi-experimental research design which consisted of two groups. They were experimental and control groups. Both of these groups got pre-test and post-test. However, the experimental group got the treatment by using reciprocal technique while the control group did not. After doing the treatment, both of them got post-test in order to see the influence of reciprocal technique during the treatment. In addition, the result of pre-test and post-test in the experimental or the control groups were compared. The design of this research is proposed by Hatch and Farhady (1982:22) as follows:

$$\underline{G_1 = T_1 \quad X \qquad\qquad T_2}$$
$$G_2 = T_1 \qquad\qquad\qquad T_2$$

Where:
G = experimental group
G_2 = control group
T_1 = pre-test for experimental/control group
T_2 = post-test for experimental/control group
X = treatment

According to John (2005:146), "A Population is a group of individuals who have the same characteristics". The population of this research was the second year students of SMP Negeri 7 Palu which has six classes. They are VIIIA, VIIIB, VIIIC, VIIID, VIII E and VIIIF. The total number is 147 students.

According to Creswell (2005:146), "A sample is a subgroup of the target population that the researcher plans to study for generalizing about the target population". The sample is taken by using cluster random sampling technique to determine which class as experimental and control group.

In this research, the researcher used cluster random sampling because each class on the second year students of the target school has the same or equal chance to be the sample. The researcher administered the sample of her research. Firstly, the researcher provided six pieces of papers. Secondly, she wrote the name of the class. Then, she folded up and put them

into a box. Finally, she shook the pieces of paper from the box thoroughly. The first fallen paper was the experimental group and the second one was the control group.

In this research, the variable consisted of dependent and independent variables. The independent variable was Reciprocal Technique and dependent variable was students' reading comprehension.

In collecting the data, the researcher used test as the instruments of the research. Test is the main instrument given in the pre-test and the post-test. The pre-test was used in order to find out the basic skill of the students in reading, while the post-test was the test given to the students by the researcher to measure the students' reading comprehension. The students got post-test after getting the treatment.

Table 1
The Scoring System

No	Kind of Test	Number of Items	Score of Each Correct Items	Maximum Score
1.	Multiple Choice	10	1	10
2.	Essay Test	10	2	20
Total				**30**

Adapted from KTSP 2006

To find out the ability of the students in comprehending the text, the researcher computed the score that has been obtained during teaching learning process by applying the formula proposed by Margono (1996: 208) as follows:

$$NP = \frac{R}{SM} \; x \; 100$$

Where:
NP = student's individual score
R = raw score
SM = maximum score
100 = constant number

After the researcher computed the individual score, she computed the mean score. In analyzing the data, the researcher used statistical analysis. The researcher used the formula proposed by Gay (1996:449) as follows:

$$\bar{X} = \frac{\Sigma x}{N}$$

Where:
$\bar{X}$ = mean score
Σx = sum of score
N = total number of subjects

After getting the mean score of both experimental and control groups, the researcher computed the sum of squares from the pre-test and the post-test by using the following formula (Gay, 1996:486) as follows:

$$SS = \Sigma X^2 - \frac{(\Sigma X)^2}{N}$$

Where:
SS = sum of squares
$\sum X^2$ = sum of square score
$(\sum X)^2$ = square of the sum
N = total of number subjects

After obtaining the sum of squares, the researcher analyzed the data in order to find out the significant difference or testing hypothesis by using t-counted formula (Gay, 1996:486) as follows:

$$t = \frac{\overline{X1} - \overline{X2}}{\sqrt{\left[\frac{SS_1 + SS_2}{n_1 + n_2 - 2}\right]\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$

Where:
$\overline{X1}$ = mean of experimental group
$\overline{X2}$ = mean of control group
SS_1 = sum of squares on of experimental group
SS_2 = sum of squares of control group
n_1 = number of experimental group
n_2 = number of control group

FINDINGS

The researcher conducted the pre-test for the experimental group (VIII B) on Tuesday, September 30th 2014 and for the control group (VIII A) on Tuesday, September 30th 2014, but it was conducted in different time because both classes had English subject on Tuesday. The resulst of the pre-test of both classes are shown in table 2 and 3.

After computing the deviation score between pre-test and post-test from experimental group, the researcher computed the mean score of the students' score that presented as follows:

$$\overline{X} = \frac{\Sigma X}{N}$$

$$= \frac{\Sigma X}{N}$$

$$= \frac{680.01}{24}$$

$$= 28.33$$

Table 2
The Students' Score Deviation (x^2) of Pre-Test
and Post-Test of Experimental Class

No	Initials	students' score		deviation (X_2-X_1)	X^2
		pre-test	post-test		
1	ADE	50	80	30	900
2	AFR	40	70	30	900
3	AND	50	76.67	26.67	711.29
4	AKB	40	56.67	16.67	277.89
5	FAH	43.33	70	26.67	711.29
6	FIR	40	76.67	36.67	1344.69
7	FIT	13.33	50	36.67	1344.69
8	IKB	50	73.33	23.33	544.29
9	KAR	46.67	73.33	26.66	710.76
10	KIN	46.67	73.33	26.66	710.76
11	MAF	43.33	53.33	10	100
12	NID	36.67	66.67	30	900
13	AFI	43.33	70	26.67	711.29
14	FAD	43.33	73.33	30	900
15	ALD	43.33	70	26.67	711.29
16	RIF	46.67	76.67	30	900
17	RIN	46.67	73.33	26.66	710.76
18	SAR	43.33	80	36.67	1344.69
19	WAH	40	56.67	16.67	277.89
20	WAL	43.33	83.33	40	1600
21	RUL	43.33	80	36,67	1344.69
22	UNI	56.67	86.67	30	900
23	WIN	56.67	86.67	30	900
24	ZUL	20	50	30	900
	Total			**680.01**	**20356.27**

Then, after calculating the mean deviation of the experimental group, the researcher calculated the sum of the square deviation by using the formula below:

$$SS_1 = \Sigma x^2 - \frac{(\Sigma x)^2}{N}$$

$$= 20356.27 - \frac{(680.01)^2}{24}$$

$$= 20356.27 - \frac{462413.6}{24}$$

$$= 20356.27 - 19267.23$$

$$= \mathbf{1089.04}$$

Table 3
The Students' Score Deviation of Pre-test and Post-test of the Control Class

No	Initials	students' score		Deviation	X2
		pre-test	post-test	X2-X1	
1	AAN	36.67	46.67	10	100
2	RUL	40	33.33	-6.67	44.49
3	ADI	23.33	50	26.67	711.29
4	AHM	40	40	0	0
5	CAN	36.67	46.67	10	100
6	DIN	26.67	53.33	26.67	711.29
7	DEW	40	50	10	100
8	AZR	43.33	56.67	13.34	177.96
9	LIS	50	43.33	-6.67	44.49
10	IKB	30	43.33	13.33	177.69
11	BAL	20	30	10	100
12	WIN	30	66.67	36.67	1344.69
13	ELM	36.67	43.33	6.66	44.36
14	NUR	53.33	66.67	13.34	177.96
15	LAT	43.33	53.33	10	100
16	PUT	40	40	0	0
17	FAJ	20	40	20	400
18	SAR	43.33	33.33	-10	100
19	JUL	33.33	26.67	-6.66	44.36
20	RIF	30	33.33	3.33	11.09
21	WAY	26.67	40	13.34	177.96
22	JUF	20	30	10	100
23	SYU	50	76.67	26.67	711.29
24	RIF	43.33	36.66	-6.67	44.49
25	YUD	26.67	26.67	0	0
	Total			**223.35**	**5523.41**

After finding the deviation score between pre-test and post-test from control group, the researcher also calculated the mean score of the students' score that presented as follows:

$$\overline{\mathbf{x}} = \frac{\Sigma X}{N}$$

$$\overline{X}2 = \frac{\Sigma X}{N}$$

$$\overline{X}2 = \frac{223.35}{25}$$

$$\overline{X}2 = 8.93$$

Moreover, the researcher analyzed the mean deviation of the control group. She calculated the sum of the square deviation by using the formula below:

$$SS_2 = \Sigma x^2 - \frac{(\Sigma x)^2}{N}$$

$$= 5523.41 - \frac{(223.35)^2}{25}$$

$$= 5523.41 - \frac{49885.22}{25}$$

$$= 5523.41 - 1995.41$$

$$= 3528$$

To see whether there was a significant difference between the means of the two groups in the post-test, the researcher compared them by using statistical formula as follows:

$$t = \frac{\overline{X1} - \overline{X2}}{\sqrt{\left[\frac{SS_1 + SS_2}{n_1 + n_2 - 2}\right]\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$

$$t = \frac{28.33 - 8.93}{\sqrt{\left[\frac{1089.04 + 3528}{24 + 25 - 2}\right]\left[\frac{1}{24} + \frac{1}{25}\right]}}$$

$$t = \frac{19.4}{\sqrt{\left[\frac{4617.04}{47}\right]\left[\frac{25 + 24}{600}\right]}}$$

$$t = \frac{19.4}{\sqrt{98.23 \times \left[\frac{49}{600}\right]}}$$

$$t = \frac{19.4}{\sqrt{98.23 \times 0.08}}$$

$$t = \frac{19.4}{\sqrt{7,86}} = \frac{19.4}{2.80} = 6.93$$

DISCUSSION

The researcher limited her research on the students' comprehension of the reading text. She investigated students' comprehension by seeing their vocabulary and grammar in the test. In this case, there were two kinds of test: multiple choice focusing on vocabulary and essay test focusing on grammar. The maximum score of multiple choice was 10 and the maximum score of essay test was 20.The standard score of English at the school was 65. Based on the result of pre-test in both groups, there were 0% of students who got >65 and 100% of them who got <65. In other words, none of the students could get the standard score. Related to the result of pre-test in experimental group, it shows that in vocabulary the students who got score ≥7 were 41% and there were 20.83% of students who got score ≥10 in grammar. In contrast, the students' result of pre-test in control group shows that in vocabulary the students who got score ≥7 were 32%,while in grammar there were 20% of students who got score ≥10. It shows that the students were difficult in comprehending the reading text.

After giving the pre-test to the students, the researcher gave them treatment to know the significant progress by each student before they got a post-test. In doing the treatment, the researcher divided the students into 5 groups and they did some steps in reciprocal technique, they are predicting, questioning, clarifying, and summarizing. Firstly, the researcher wrote the title of the reading text in the whiteboard without giving the reading text to them. In this step, the students predicted what the text tells about. Secondly, the researcher distributed the reading text and gave enough time for silent reading according to the length of text to the students. In this step, the students explored the meaning of the text and identified the kind of information, and then they provided substance for a question in the reading text. After that, they turned the information into a question form. Thirdly, the students asked the teacher about the text which they did not understand in order to make it clear. In this step, the researcher explained the text that made the students confused. Finally, summarizing which allowed the students to comprehend the text by paraphrasing or reviewing the point of the text. Meanwhile, the students in control group did not get the treatment or the researcher did not use any specific technique to teach the students in control group.

To find out the improvement of the students' reading comprehension after they got the treatment, the researcher conducted the post-test in both experimental and control groups. Based on the result of the post-test, it showed that both groups had progress, but the progress itself was different. It can be described by using the percentage. There were 79.17% of students in experimental group who got >65 and 20.83% of them who got <65. In contrast, the students' result in control group shows that 12% of students who got >65 and 88% of them got <65. The post-test result of experimental group was increased significantly. Furthermore, the result of post-test in experimental group shows that in vocabulary the students who got score ≥7 were 72% and there were 83.33% of students who got score ≥10 in grammar. In contrast, the students' result of post-test in control group shows that in vocabulary the students who got score ≥7 were 40%,while in grammar there were 40% of students who got score ≥10.Therefore, the result verified that the researcher could improve the students' reading comprehension by applying reciprocal technique. In addition, the researcher found out that there was a significant difference between pre-test and post-test. The result of the test showed that the hypothesis of this research was accepted and null hypothesis was rejected. It indicates that the objective of this research was proved.

Furthermore, the researcher compared her research finding with previous research one which had been done by Widyawati (2013). Both this research and previous research have the same result since they applied reciprocal technique in improving reading comprehension

successfully. Besides, they also have some differences. The researcher conducted research by using descriptive text, while Widyawati (2013) did a research by using narrative text. The last difference is on the level. This research was done at the second year students of junior high school, yet Widyawati (2013) did research at the eleventh grade students of senior high school. Thus, the researcher can draw statement that the reciprocal technique was effective in improving reading comprehension since it had been applied by using descriptive or narrative text itself and in any levels even though it has some differences.

CONCLUSION AND SUGGESTIONS

After the researcher did the research, she concludes that the use of reciprocal technique can improve students' reading comprehension of the second year students of SMP Negeri 7 Palu. Reciprocal technique is one of the effective techniques that could help the students to improve their reading comprehension. It is proven by the value of $t_{counted}$ (6.93) is greater than t_{table} (2.014). It means that researchers' hypothesis is accepted. There is also a progress value of the students' mean score in the experimental class from(42.78) in the pre-test to (71.11) in the post-test.

Having conducted the research, the researcher would like to offer some suggestions for the improvement of learning reading comprehension. Firstly, teachers should apply appropriate method, approach, technique, and medium when they teach English to the students especially in teaching reading comprehension. Secondly, for students, they should study harder, even though their score of reading comprehension is good. They have to do more practices to increase their reading comprehension. Finally, the researcher suggests that other researchers should use various techniques in order to make the students master many vocabularies and it will be easier for students to comprehend reading texts.

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