

USING RECIPROCAL TEACHING TECHNIQUE IN IMPROVING READING COMPREHENSION

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Abstract

The objective of the research was to prove that the use of reciprocal teaching technique can improve the student's reading comprehension. This research applied pre-experimental research design that was the one group pre-test and post-test design. The population was the second year students of SMA Negeri 2 Balaesang. Class XI IPA 2 was chosen as the sample by using cluster sampling technique. The instrument was used to collect the data was test. The result of the data analysis showed that the pre-test result was 52,1 and post-test result was 71,18 by applying 0.05 level of significance with 34 degree of freedom (df), the t_{counted} 13.507 was higher than t_{table} 1.692. It means that the use of reciprocal teaching technique can improve reading comprehension of the second year students of SMA Negeri 2 Balaesang.

Keywords: Reciprocal teaching; Improving; Reading Comprehension.

INTRODUCTION

English is taught as a subject at all levels of education, from elementary to university. The teaching of English is focused on four language skills. They are listening, speaking, reading and writing skill. The skill that was investigated in the research is reading. According to Hittleman (1978:120) "Reading is a verbal process interrelated with thinking and with all other communication abilities-listening, speaking, and writing. Specifically, reading is the process of reconstruction from the printed patterns on the page, the ideas and information intended by the author".

Reading is one of the important skills in English to be taught to students in EFL courses. It is learned to get much information or improve their knowledge through many kinds of texts. The students are expected to be able to comprehend the text well especially for the students of senior high school. It is stated in KTSP (Kurikulum Tingkat Satuan Pendidikan) of senior high school DEPDIKNAS (2006:4) in standard competence that students have to:

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Memahami makna teks tulis fungsional pendek dan esei sederhana berbentuk: recount, narrative, procedure, descriptive, news item, spoof, report, analytical exposition, hortatory exposition, explanation, discussion dan review dalam konteks kehidupan sehari-hari dan untuk mengakses ilmu pengetahuan.

The standard competence gives the teachers guidelines in designing teaching material as good as possible. It means that by comprehending those reading texts the students enable to embark the knowledge from the text. So, the students can comprehend the text well.

Comprehension is a specific kind of thinking process. Anderson in Alexander (1977:160) states “good comprehension includes the reader’s discovering the meaning which is needed to achieve the particular purpose set for or by him”. Furthermore, Swan stated (1975:2):

Comprehension is ability to show or understand by expressing the context of the text. Comprehension is ability that involves matters such as, identifying the words in sentence as sub-unit and whole sentence in paragraph as a unit. Then, continued to interpret them appropriately.

Based on the researcher’s preliminary observation at the second year students of SMA Negeri 2 Balaesang, when they were studying English, the researcher found some problems. First, they got difficulties in finding main idea of the text. Second, they got difficulties in finding information of the text. Third, they got difficulties to figure out the meaning of the text. As the result, the students faced difficulties to answer some of the text’s questions.

Considering the importance of reading, there are many kinds of reading techniques that can be used to improve reading comprehension. Reciprocal teaching technique is one of the ways to help students to develop their reading comprehension. Reciprocal teaching is a cooperative reading strategy that engages teams of students in summarizing (self-review), questioning, clarifying, and predicting (Palincsar and Brown, 1984). From the statement, reciprocal teaching is a strategy of collaborative reading that take on the students group in using the four strategies. They are summarizing, questioning, clarifying, and predicting.

Palincsar (1986) describes the concept of reciprocal teaching:

Reciprocal teaching refers to an instructional activity that takes place in the form of a dialogue between teachers and students regarding segments of text. The dialogue is structured by the use of four strategies: summarizing, question generating, clarifying, and predicting. The teacher and students take turns assuming the role of teacher in leading this dialogue.

Reciprocal Teaching is an activity that requires students and teachers to take turns the role of teacher to lead the discussion about a given reading. Reciprocal Teaching involves four strategies that guide the discussion: predicting, questioning generating, clarifying and summarizing. By applying reciprocal teaching, the students can share each other about the difficulties in understanding the text. Having better comprehension and understanding of the text is very important for the students because they can answer the questions correctly and understand what the text tells about.

Based on the explanation above, the researcher formulated a research question as follows: *Can the use of reciprocal teaching technique improve reading comprehension of the second year student's of SMA Negeri 2 Balaesang?* And the objective of the research is to prove that reciprocal teaching technique can improve reading comprehension of the second year students of SMA Negeri 2 Balaesang.

METHOD

In conducting this research, the researcher applied pre-experimental research design. It means that there was only one class as the sample of the research. By using this design, the researcher administered pre-test before giving treatment and post-test after it. The research design proposed by Best (1981:81):

O1 X O2

Where:

O1 : Pre-test
X : Treatment
O2 : Post-test

The population of this research was the second year students of SMA Negeri 2 Balaesang It consisted of 3 parallel classes. The total number of the population was 107 students. In choosing the sample of this research, the researcher applied cluster sampling technique. The sample in her research was XI IPA 2. In this research, the researcher used two variables. They were dependent variable and independent variable. A dependent variable is an attribute or characteristic that is dependent or influenced by the independent variable, while independent variable is an attribute or characteristic that influences or affects an outcome or dependent variable (Creswell, 2005). So, the dependent variable of this research was the students' reading comprehension and the independent variable was reciprocal teaching technique.

Before giving the treatment to the students, the researcher gave the pretest to the students. There was one reading text only for the test that contained 15 questions which were divided into two parts. The first ten items were in the form of essay test, and the second five items were true – false statement. For essay test the score of each number was 3 points. And then, true – false statement were 1 score for each number.

To make obvious, the researcher drew the scoring system the test as seen in the table below:

Table 1: The Scoring System

No	Kind of Test	Number of items	Score of each correct item	Maximum Score
1.	Essay Test	10	3	30
2	True-False statement	5	1	5
	Total			35

After conducting the pre-test, the researcher gave the treatment. The students of experimental group learned how to understand the reading comprehension well through reciprocal teaching. The treatment was conducted for eight meetings. And then the post-test was given to the students after conducting the treatment to evaluate the students' improvement in reading comprehension. The post test consisted of the same test in the pre test.

The result of the score of the test was analyzed statistically. First the researcher computed the individual score of students. In scoring system the researcher used the formula proposed by Arikunto (2006:240) as follow:

$$\sum x = \frac{x}{n} \times 100$$

Where: $\sum x$ = Standard score
 x = Obtained score
 n = Maximum score
 100 = Constant number

To compute the students mean scores, the researcher applied a formula as stated by Arikunto (2006:189) as the following:

$$M = \frac{\sum x}{N}$$

Where :
 M = The mean of the score

ΣX = The sum of the score
 N = The number of the students

To compute the students' mean deviation, the researcher applied a formula stated by Arikunto (2002:276) as the following:

$$Md = \frac{\Sigma d}{N}$$

Where:

Md = Medium score between pre-test and post-test
 Σd = Score deviation between pre-test and post-test
 N = Number of students

To compute the total of square deviation ($\Sigma x^2 d$ = sum of the square divided by total number of students) the writer used the formula proposed by Arikunto (2006:308) is as follows:

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

Where:

$\Sigma x^2 d$ = The sum of deviation squared in each subject
 Σd^2 = The Sum of squared deviation
 N = Number of students

After getting the result of deviation square, the researcher used t_{table} test to find out the significant difference between the result of pre-test and the result of post-test as well as to prove either the hypothesis is accepted or rejected. The researcher used the following formula proposed by Arikunto (2002:79) as follows:

$$t = \frac{Md}{\sqrt{\frac{\Sigma x^2 d}{N(N-1)}}}$$

Where:

t = Significant score
 Md = Medium score between pre-test and post-test
 $\Sigma x^2 d$ = The sum of deviation squared
 N = Number of students
 1 = Constant number

RESULTS

The pre test was administered to experimental class aimed to measure the students' abilities before being treated. The result of pre-test was as follows:

Table 2: The Students' Pre-test Score

No	Initial Name	Test		Raw score	Standard Score
		Essay Test	True False		
1	ABK	11	3	14	40.00
2	AGL	15	4	19	54.29
3	AGS	14	4	18	51.43
4	AMD	15	4	19	54.29
5	AIN	16	2	18	51.43
6	AKR	20	4	24	68.57
7	AUD	16	2	18	51.43
8	AYU	16	2	18	51.43
9	CAN	16	2	18	51.43
10	ENC	16	2	18	51.43
11	FAD	18	2	20	57.14
12	FAT	13	2	15	42.86
13	FID	18	3	21	60.00
14	FIK	12	3	15	42.86
15	FIR	12	3	15	42.86
16	GIT	14	2	16	45.71
17	HER	18	4	22	62.86
18	HIN	12	2	14	40.00
19	LIS	16	4	20	57.14
20	LIM	14	3	17	48.57
21	MAG	17	4	21	60.00
22	MRA	15	4	19	54.29
23	MUA	15	4	19	54.29
24	NIL	14	3	17	48.57
25	NOR	16	3	19	54.29
26	NUR	16	3	19	54.29
27	RAH	17	4	21	60.00
28	RNI	14	3	17	48.57
29	REZ	11	2	13	37.14
30	RIN	16	2	18	51.43
31	SAL	16	4	20	57.14
32	SIN	13	4	17	48.57
33	SUT	14	4	18	51.43
34	ZUF	16	2	18	51.43
35	ZUM	20	2	22	62.86
Total					1820.03

Having note the pre-test score, the researcher computed the mean score of the students' pre-test by applying the mean score formula. To compute the mean score, the

researcher firstly added the all of the standard scores and divided the number of the students. To clearer the mean score computation was as follow:

$$M = \frac{\sum x}{N}$$

$$M = \frac{1820.03}{35}$$

$$M = 52.1$$

The post-test was given to the students after conducting the treatment. The result of the students' score in post-test is presented on the table below:

Table 3: The Students' Post-test Score

No	Initial Name	Test		Raw score	Standard Score
		Essay Test	True False		
1	ABK	20	5	25	71.43
2	AGL	21	4	25	71.43
3	AGS	22	4	26	74.29
4	AMD	18	5	23	65.71
5	AIN	21	4	25	71.43
6	AKR	23	5	28	80.00
7	AUD	16	4	20	57.14
8	AYU	23	4	27	77.14
9	CAN	20	4	24	68.57
10	ENC	24	4	28	80.00
11	FAD	21	5	26	74.29
12	FAT	22	4	26	74.29
13	FID	21	4	25	71.43
14	FIK	19	3	22	62.86
15	FIR	20	5	25	71.43
16	GIT	20	5	25	71.43
17	HER	22	5	27	77.14
18	HIN	16	2	18	51.43
19	LIS	22	5	27	77.14
20	LIM	24	5	29	82.86
21	MAG	22	5	27	77.14
22	MRA	20	5	25	71.43
23	MUA	15	5	20	57.14
24	NIL	20	3	23	65.71
25	NOR	21	4	25	71.43
26	NUR	20	3	23	65.71
27	RAH	22	5	27	77.14
28	RNI	23	5	28	80.00
29	REZ	23	4	27	77.14
30	RIN	17	5	22	62.86
31	SAL	20	5	25	71.43
32	SIN	20	5	25	71.43
33	SUT	18	4	22	62.86
34	ZUF	22	4	26	74.29
35	ZUM	21	5	26	74.29
TOTAL					2491.44

After calculating the students' scores on the pre-test the researcher computed the mean score of the students' post-test. The computation was same as the pre-test. The computation was as follow:

$$\begin{aligned} M &= \frac{\sum x}{N} \\ &= \frac{2491.44}{35} \\ &= 71.18 \end{aligned}$$

From the calculation above, it was found that the mean score of the students in post-test was 71.18. So, it can be seen that the mean score of the students in the post-test was higher than pre-test. These shown that the students' reading comprehension can be improved after treatment.

Having computed the mean score on pre-test and post-test, the researcher computed the mean deviation of the students' score. The computation was presented as the following:

$$\begin{aligned} Md &= \frac{\sum d}{N} \\ &= \frac{671.41}{35} \\ &= 19.18 \end{aligned}$$

Having counted the mean deviation, the researcher next computed the square deviation as shown below:

$$\begin{aligned} \sum x^2 d &= \sum d^2 - \frac{(\sum d)^2}{N} \\ &= 15306.22 - \frac{(671.41)^2}{35} \\ &= 15306.22 - \frac{(671.41)^2}{35} \\ &= 15306.22 - \frac{450791.39}{35} \\ &= 15306.22 - 12879.75 \\ &= 2426.47 \end{aligned}$$

Next the researcher needed to statistically analyze the data in order to know the significance between pre-test and post-test. The computation was as follow:

$$t = \frac{Md}{\sqrt{\frac{\sum x^2 d}{N(N-1)}}}$$

$$\begin{aligned}
&= \frac{19.18}{\sqrt{\frac{2426.47}{35(35-1)}}} \\
&= \frac{19.18}{\sqrt{\frac{2426.47}{1190}}} \\
&= \frac{19.18}{\sqrt{2.03}} \\
&= \frac{19.18}{1.42} \\
&= 13.507
\end{aligned}$$

To test the difference between t_{counted} and t_{table} , the researcher applied 0.05 level of significance for one-tailed test with 34 degree of freedom (df) $35 - 1 = 34$. Since the value of (df) is not among the table, she used the interpolation computation $\frac{a}{b} \times c$.

a= is the value of the amount of students subtract with the df (30)

b= is the value of the df (40) subtract the df (30)

c= is the value of value df (30) subtract the value of df (40)

$$a = 34 - 30 = 4$$

$$b = 40 - 30 = 10$$

$$c = 30 \rightarrow 1.697$$

$$40 \rightarrow 1.684$$

$$= 1.697 - 1.684 = 0.013$$

$$= \frac{a}{b} \times c$$

$$= \frac{4}{10} \times 0.013 = 0.005$$

By using 0.05 level of significance, the calculation is $1.697 - 0.005 = 1.692$, so the value of t_{table} is 1.692.

The researcher found that the t_{counted} 13.507 was higher than t_{table} 1.692. It means that the researcher hypothesis is accepted. In other words the use of reciprocal teaching

technique can improve reading comprehension of the second year students of SMA Negeri 2 Balaesang.

DISCUSSION

Based on the result of pre-test the passed percentage of students was (17%) and the percentage of students got fail on pre-test was (83%). The reseracher assumed that they had some difficulties in doing the test. First, they got difficulties in finding main idea of the text. Second, they found complexity in getting information of the text. Third, they confused to figure out the meaning of the text and what a paragraph tells about because they have lack of vocabulary.

To solve the problem above the researcher applied reciprocal teaching technique by doing the following steps: firstly the students predict what they think the reading talk about. Secondly the students formulate questions related to the text. The language of questioning may include the questions word: who, what, when, why, where, how. By asking questions students probe deeper into the content of the text. Thirdly the students make a note when they find something is unclear (unfamiliar or difficult word, unclear sentences or passage). In this step the students reread the text and interact with other class members to gain important information about the text. Lastly the students make a few sentences the most important ideas from the text.

According to Greenway (2006) “predicting helps students find the main idea of the text, link the content of the text with their previous knowledge and predict the events and topics in the next paragraphs more deeply”. And for generating questions, Rosenshine, Meistry and Chapman (1996) mentioned that “when students generate questions, they become more interested in the text, which is necessary for understanding it. As for clarifying, Slater and Hortsman (2002) mentioned that “the use of clarifying, students start writing in correct vocabulary, sentences or ideas and the use of this strategy helps students understand the text and solve the problems”. Based on the three statements above, the researcher can conclude the steps in reciprocal teaching technique is a good way to solve the students’ problems in reading comprehension

After conducting the treatment, the researcher gave post-test to measure the effectiveness of reciprocal teaching technique in improving students reading comprehension. She found that the students’ understanding about the text was better than before treatment. It was proved by the result on the post-test. The passed percentage of students on the post-test was (92%) and the percentage of students got fail on post-test was

(8%). By seeing at the result percentage from the pre-test to post-test, the researcher found it can be improved by applying reciprocal teaching technique. It could be said that the use of reciprocal teaching technique could improve students' reading comprehension.

CONCLUSIONS AND SUGGESTIONS

After analyzing the data, the researcher stated conclusion as what the researcher found in doing the research. Firstly, teaching reading through reciprocal teaching technique could make the class enjoyable, challenging and interesting. Secondly, the researcher proved that reciprocal teaching technique was an effective way to improve the students' reading comprehension. It can be seen from the result of the students' mean score in the pre-test result was low while in the post-test result improved. So it means that this technique can helps the students in improving their reading comprehension.

Considering the importance of reading the researcher would like to give some suggestions for those who are involving in English teaching and learning process. Firstly, the English teacher should be creative in choosing appropriate technique, method or strategy in teaching reading. Secondly, the use of reciprocal teaching technique can improve the reading comprehension of the second year students of SMA Negeri 1 Balaesang. So, the researcher strongly suggest the teacher to apply this technique in teaching reading. Finally in teaching reading, it is better to use various topics, in order to make the students have many of vocabulary.

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