

CHAPTER IV

RESEARCH FINDING AND DISCUSSION

This chapter presents about research finding that include the description of data, hypothesis testing, and discussion.

A. The Description of Data

In this section, the researcher presents the students' score in reading comprehension before and after being taught by using scanning technique. The researcher gave pre-test and post-test in order to know whether there is different score of the students before and after being taught by using scanning technique. The researcher used three steps to get the data: pre-test, treatment using scanning technique, and post-test.

The test was given to the seventh F class as first grader in SMPN 1 Besuki as a single group. The researcher presented and analyzed the data through two kinds of test, they were pre-test and post-test. The pre-test was given before teaching the class by using scanning technique and post-test was given after teaching the class by using scanning technique. The collected data were described in the form of table that includes the pre-test and post-test score in a single group.

1. Description of Students' Achievement before being taught by using Scanning Technique.

Pre-test was given to students on March 6th, 2017. They had to answer about short functional text in the form of announcement. The test in the form of multiple choice which consists of 25 items. Every items has four choice, there was A, B, C, and D. There were 21 students as respondents or subjects of the research. The test was conducted before teaching using scanning technique by the researcher. This test was to know the students' reading achievement before students got treatment. The descriptions presented in the following table:

Table 4.1 TheStudents'Score Pre-test in Reading Comprehension beforeBeing Taught by Using Scanning Technique

No.	Name	Pre-test Score (Y ₁)
1.	AM	76
2.	ABHP	52
3.	DPS	76
4.	DD	56
5.	EA	72
6.	GSD	80
7.	HDR	56
8.	JA	52
9.	KF	64
10.	MES	48
11.	MRA	52
12.	MAA	84
13.	MRK	60

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Continuation

No.	Name	Pre-test Score (Y ₁)
14.	NRR	76
15.	PRS	76
16.	RAR	64
17.	RDS	52
18.	SA	76
19.	TFS	52
20.	VPF	52
21.	WAM	68
	$\sum N = 21$	$\sum Y_1 = 1344$
		$\bar{Y}_1 = 64$

Based on the table above, the researcher used the alphabet to replace the students' name because the students' name cannot write completely. There are 21 students as respondents or subjects of the research. The highest score of pre-test is 84 and the lowest score is 48. The mean score of pre-test is 64.

2. Description of Students' Achievement after Being Taught by Using Scanning Technique.

Post-test was given to students on March 14th, 2017. They had to answer about short functional text in the form of announcement. The test in the form of multiple choice which consists of 25 items. Every items has four choice, there was A, B, C, and D. There were 21 students as respondents or subjects of the research. The test was conducted after teaching using scanning

technique by the researcher. This test was to know the students' reading achievement after students got treatment. The descriptions presented in the following table:

Table 4.2 The Students' Score Post-test in Reading Comprehension after Being Taught by Using Scanning Technique

No.	Name	Post-test Score (Y ₂)
1.	AM	84
2.	ABHP	70
3.	DPS	84
4.	DD	80
5.	EA	76
6.	GSD	92
7.	HDR	72
8.	JA	76
9.	KF	76
10.	MES	70
11.	MRA	72
12.	MAA	84
13.	MRK	84
14.	NRR	88
15.	PRS	92
16.	RAR	76
17.	RDS	70
18.	SA	76
19.	TFS	72
20.	VPF	70
21.	WAM	84
	$\sum N = 21$	$\sum Y_2 = 1648$
		$\bar{Y}_2 = 78.48$

Based on the table above, there are 21 students as respondents or subjects of the research. The highest score of post-test is 92 and the lowest score is 70. The mean score of post-test is 78.48.

The data of students pre-test and post-test can be arranged in the form of frequency and percentage through scoring criteria. It is divided into five criteria, those are: excellent, good, average, poor, and very poor.

Table 4.3 Table of Criteria Students' Score

No.	Grade	Criteria	Range Score
1.	A	Excellent	90-100
2.	B	Good	80-89
3.	C	Average	70-79
4.	D	Poor	60-69
5.	E	Very poor	0-59

Table above explained the criteria of students' score in reading comprehension. The formula to find out the percentage score as follow:

$$P = \frac{F}{N} \times 100\%$$

Where:

P = symbol of percentage

F = frequency

N = subject of the sample

Table 4.4 ThePercentage of Students' Reading Comprehension before Being Taught by Using Scanning Technique

No.	Criteria	Range Score	F _x	%
1.	Excellent	90-100	-	-
2.	Good	80-89	2	9.52%
3.	Average	70-79	6	28.57%
4.	Poor	60-69	4	19.05%
5.	Very poor	0-59	9	42.86%
			$\sum N = 21$	$\sum P = 100\%$

Based on the table 4.4 above, it is known that students' achievement before being taught by using scanning technique, there are 9.52% students had good score where the range score from 80-89, 28.57% students had average score where the range score from 70-79, 19.05% students had poor score where the range score from 60-69, and 42.86% students had very poor score where the range score from 0-59. It means that most of them need to improve their reading comprehension.

Table 4.5 ThePercentage of Students' Reading Comprehension after Being Taught by Using Scanning Technique

No.	Criteria	Range Score	F _x	%
1.	Excellent	90-100	2	9.52%
2.	Good	80-89	7	33.33%
3.	Average	70-79	12	57.15%
4.	Poor	60-69	-	-
5.	Very poor	0-59	-	-
			$\sum N = 21$	$\sum P = 100\%$

Based on the table 4.5 above, it can concluded that the students' achievement after being taught by using scanning technique is increase, there are 9.52% students had excellent score where the range score from 90-100, it means that the students was very good in reading comprehension. 33.33% students had good score where the range score from 80-89, 57.15% students had average score where the range score from 70-79, and there was no one of students who had poor and very poor score. It means that scanning technique can help students to understand and increase their achievement in reading comprehension.

Table 4.6 ThePercentage Comparison of Students' Reading Comprehension before and after Being Taught by Using Scanning Technique

No.	Qualification	Range Score	Percentage before using scanning technique	Percentage after using scanning technique
1.	Excellent	90-100	-	9.52%
2.	Good	80-89	9.52%	33.33%
3.	Average	70-79	28.57%	57.15%
4.	Poor	60-69	19.05%	-
5.	Very poor	0-59	42.86%	-
			$\Sigma P= 100\%$	$\Sigma P= 100\%$

Based on the table 4.6 above, there are difference score before and after being taught using scanning technique. The students' score after being taught using Scanning technique is higher and better than before they were not taught using Scanning technique. It means that teaching reading using Scanning technique can increase students' achievement in reading.

B. Hypothesis Testing

The hypothesis of this research examined the effectiveness of before and after using scanning technique in reading comprehension. The hypothesis which is examined in this research as follows:

1. $H_0: \mu_1 = \mu_2$. (The null hypothesis)

There is no significant difference between the students' achievement before being taught using scanning technique and after being taught using scanning technique.

2. $H_a: \mu_1 \neq \mu_2$. (The alternative hypothesis)

There is significant difference between the students' achievement before taught using scanning technique and after being taught using scanning technique.

The computation used to know the effectiveness of scanning technique in reading comprehension. These subjects are referred as paired because they are drawn from same subject. The result is as follow:

Table 4.7 Paired Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest	64.00	21	11.662	2.545
	posttest	78.48	21	7.264	1.585

Based on the table 4.7, the data presented are performances score of the members of one group which students were taught before and after using scanning technique in reading comprehension. Output paired sample statistics shows that there are differences of the mean between pre-test and post-test. The mean score of pre-test is 64 and the mean score of post-test is 78.48. So, the mean score of post-test is higher than the mean score of pre-test. The test items of pre-test and post-test are 25 items in the form of multiple choice that given by the researcher. The pre-test was done before treatment and post-test was done after treatment. The number of subjects or respondents of each sample (N) is 21 students.

In order to standard deviation of pre-test is 11.662 and standard deviation of post-test is 7.264. Standard error mean for pre-test is 2.545 and for post-test is 1.585. We can conclude that the value increases after being taught using scanning technique in reading comprehension.

Table 4.8 Paired Samples Correlations

Paired Samples Correlations			
	N	Correlation	Sig.
Pair 1 pretest & posttest	21	.798	.000

Based on the table 4.8, output paired samples correlations shows the correlation between both samples is 0.798 at the sig. 0.000. The correlation 0.798 shows that there is difference before and after students got treatment using

scanning technique. Sig. in the table is very important because it used to know the result of this research. Significance will be explained as follow above.

- a. If the probability < 0.05 , so the null hypothesis (H_0) rejected
- b. If the probability > 0.05 , so the null hypothesis (H_0) accepted

The numeral sig. (P-value) is 0.000 smaller from 0.05 ($0.000 < 0.05$). It means that the null hypothesis (H_0) is rejected. So, there is significant different of students achievement in reading comprehension before and after being taught using scanning technique at the first grade of SMPN 1 Besuki. Therefore, the researcher concludes that scanning technique is effective in teaching reading.

Table 4.9 Paired Sample Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pretest - posttest	-14.476	7.319	1.597	-17.808	-11.145	-9.064	20	.000

Based on the table 4.9, output paired samples test shows the result of this research with using T-test in SPSS 16.0 windows. Mean in column had purpose to know the average score before and after students taught by using scanning technique. The result mean of pre-test and post-test is -14.476. The symbols (-) is indicated that mean on post-test is higher than pre-test.

The next column result of standard deviation is 7.319. Standard deviation tells about difference of standard deviation between before and after using this technique. Standard error mean is 1.597. There are two values in confidence interval of the difference, for the lower is -17.808 and the upper is -11.145. The result of this is -9.064 with degree of freedom (df) is 20 and sig. (2-tailed) is 0.000.

The P-value (sig.) is 0.000 and the significance level is 0.05. It means that the P-value (sig.) is smaller than significance level ($0.000 < 0.05$). So, the null hypothesis (H_0) is rejected and alternative hypothesis (H_a) is accepted. It means that there is significant difference of students' achievement in reading comprehension before and after being taught using scanning technique.

The researcher's hypothesis stating that students' achievement taught using scanning technique is better than the one of those not using scanning technique. It can be concluded that using scanning technique in teaching reading comprehension of first grade at SMPN 1 Besuki is effective.

C. Discussion

The objective of this research is to know the effectiveness of using scanning technique in reading comprehension of first grader at SMPN 1 Besuki. Based on data analysis above, it shows that there is significant difference of students' achievement in reading comprehension before and after being taught by using scanning technique.

The mean score of reading comprehension before being taught using scanning technique is bad because the mean score is 64. And then, after getting

treatment the mean score is 78.48. It is increased the students' achievement because the mean score of post-test is higher than the mean score of pre-test. It is found that there is difference of mean score between pre-test and post-test is 14.476 after computing T-test. While in T-test analysis the result of t is -9.064.

Based on research method, teaching and learning process was divided into three steps. First step was giving pre-test for students to know their reading comprehension before being taught by using scanning technique. Pre-test was conducted on March 6th, 2017. The form of test is multiple choice which consist of 25 questions. The time allocation was 40 minutes. There were 21 students as respondents or subjects of this research.

The second step was given treatment to the students. The first treatment was conducted on March 7th, 2017 the researcher did the treatment using scanning technique. At the first treatment the researcher as the teacher explained about types of text that can read using scanning technique. The researcher also explained the steps how to do scanning. The researcher gave the example how to apply scanning in reading a text.

Then, the students were given short functional text that suitable to apply scanning in the form of announcement. The form of questions is essay. The researcher asked one of the students read aloud the text. Then the researcher asked them to find specific information in the form of noun, adjective, adverb, or phrase. If they found difficult vocabulary to understand, they could use dictionary and asked the teacher or their classmate to understand the meaning of words or sentences.

After the step had done, the researcher gave the students oral questions concerned with the text had given. They can answer with raise hand for the student who knows the answer first. The last, the researcher asked them to do the exercise.

At the second treatment, the researcher evaluated the material about short functional text and the steps of scanning. It was conducted on March 13th, 2017. The researcher asked the students to open previous material in applies scanning. The researcher gave oral questions to review previous material. And then, the researcher gave the students short text to identify with their partner. They must write the available information in a piece of paper using scanning technique. After that, the researcher asked two students to write down their answer on the white board. The researcher corrected the students answer. The last, the researcher asked the students to do the exercise. The questions are in multiple choice.

The third step was giving post-test for the students to know the students' achievement in reading comprehension after being taught by using scanning technique. Post-test was conducted on March 14th, 2017. The form of post-test like as pre-test that is multiple choice which consist of 25 questions. With the time allocation is 40 minutes. There were 21 students as respondents or subject of this research.

Based on the result of teaching reading comprehension by using scanning technique make the students understand and quickly find the information of the text. Using this strategy in teaching reading comprehension for short functional text make the students can answer quickly the available questions. Based on the

explanation above, scanning technique is so important to find particular information in a short functional text. This strategy is easy to apply in teaching reading comprehension. Also the students felt easy to do in learning process.

It is agree with the previous study in this research done by Mahmudah (2012) in her research entitled "*The Effectiveness of Using Scanning Technique to the Reading for Locating Information to the Eight Grade Students of SMPN 3 KedungwaruTulungagung*". She used quasi-experimental, with two classes (experimental and control class). In her research, she found that scanning technique can increase students' achievement in reading. It proved by the result of t is 5.38. Compared with previous research, this research used pre-experimental design while Mahmudah's research used quasi-experimental design. Looked from the result, the result of Mahmudah's research was smaller than this research ($5.38 < 9.064$), although the findings of this research and Mamudah's research were same, that is scanning technique was effective in reading.

According to Pavlik (2004), scanning is especially useful for certain types of text and reading situations. In teaching and learning process, the researcher got some advantages of using this strategy. The advantages are students easy to find word (noun, adverb, adjective, etc.), can find the required information quickly, and did not need a lot of time. All of this, if the students do examination did not spend a lot of time.

Based on theory, scanning technique can increase students' ability in reading comprehension. This technique can encourage the students to find specific information that they need. The theory above is accepted by the researcher,

especially in finding and getting information the reading comprehension at Junior High School.

Based on the result, it can be concluded that scanning technique was effective in teaching reading comprehension. This technique is easy to use in find information. So, scanning technique is suitable in understand reading comprehension and can increase the students' achievement in reading comprehension at first grader of SMPN 1 Besuki.