

CHAPTER III

METHODOLOGY

This chapter the writer presents the method of the study. The research methods includes the research design, research hypothesis, research variable, research setting, the population and sample, setting of the study, research instrument, research procedure, data collection technique, data analysis technique.

A. Research Design

This study use quasi experimental research design. It is scientific investigation where the independent variable influences the dependent variable after the observation of that manipulation.¹ Quasi experimental is a design of research which is not include random assignment and which is not provide full control. This study conducted based on Ary's statement that full experimental research is not always possible to conduct a random selection of subjects in education research especially learning. Because, there are groups formed naturally like group of students in one class.

Quasi experimental research is used to examine the effect after the treatment will be done toward experimental group. The students as the sample were divided into two groups: experimental and control group. Experimental group was taught reading narrative text through extensive reading of short story,

¹ Donald Ary et al, *Introduction to Reasearch in Education*. (New York: Holt, Rinehart and Winston, 1990), 298

while control group was taught reading narrative text without using extensive reading of short story. The pre-treatment test was conducted to find equal groups. After that, both groups were given treatment. After giving treatment, two groups were given final test. The research design of control and experimental group can be illustrated as follows:

A	Y ₁	X	Y ₂
B	Y ₁		Y ₂

Explanation:

A and B : A is an experimental group

B is a control group

Y₁ : First test to find the equal groups

Y₂ : Final test of experimental and control groups

X : Treatment (Reading narrative text through extensive reading of short story)

B. Research Hypothesis

Ary et al stated that when making a hypothesis a researcher is predicting what the outcome of the study will be.² It means that hypothesis is the writer's prediction toward the study. Based on the writer's explanation that the

² Ibid, 96

effectiveness can be examined by comparing students' score, the research hypothesis is "there is a significance difference between the mean of students' score in reading narrative text by using extensive reading of short story and without using extensive reading (traditional technique) at tenth grade of SMA Avisena Jabon."

C. Research Variable

The experimental research brings two variables in order to explore the strength of the relationships between those variables, which are independent variable and dependent variable.³

1. Independent Variables

Independent variable is variable that influences or that becomes the cause of change or emergence the dependent variable.⁴ In this study the independent variable was reading narrative text through extensive reading of short story.

2. Dependent Variables

Dependent variable is variable that is affected by independent variable⁵. In this study the dependent variable was the students' reading achievement in narrative text at tenth grade of SMA Avisena Jabon.

³ Donald Ary et al, *Introduction to Reasearch in Education*. (New York: Holt, Rinehart and Winston, 1990), 31

⁴ Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R & D*, (Bandung: Alfabeta,2009), 39

⁵ Op.cit. Donald Ary et al, 31

D. Research Setting

Before the writer is going to do the research, she has to decide the location of the research, because the setting of the research is the important factor to do the research. Deciding the place of research can be the supporting factor to do research. From the place or the location, the writer will find the various things, such as the phenomena, the facts from the result of the research.

The setting of this research was in SMA Avisena Jabon. There were some reasons why she decides this school. One of reason was she thinks that the school was suitable to do this research and to get many facts to support this research.

E. Research Subject

Population and sample are important elements in research. “Population is total member of research respondent.”

In this study, the population was the entire of the tenth grade students of SMA Avisena, Jabon. The tenth grade students of SMA Avisena were consisted of three classes. Each class consisted of 38 students. So the population in this research was 114 students.

After determining the population, the writer obtained a sample, which was obviously important step in conducting a research. She used a sample research to represent the population. Arikunto said that a sample is a part of

population, which is investigated.⁶ In this study, there were two classes as sample. They were class X-3 and X-2. The writer took the first class as the experiment class and the second class the control class.

F. Research Instrument

To get the accurate data in this study, the writer selected the instruments that would be appropriate for the problem statement, there were:

1. Test

The test was used to determine the result of student learning in reading narrative text through extensive reading of short story and traditional technique. Test is a set of questions or exercises and other tools which are used to measure skill, intelligence, knowledge, and ability those are had by individual or group.⁷ The test was used as instrument to get data about reading score for both of groups. The test in this study was in form of multiple choice tests.

The first test was given before the treatment had done. Both of experimental and control group were given first test to find the equality of students' basic competence before the treatment was given to the students.

The final test was given to the experimental group and the control group after receiving treatment. The experimental group was taught reading

⁶ Suharsimi Arikunto. *Prosedur penelitian suatu pendekatan praktek*, (Jakarta: Rineka Cipta, 1998), 117

⁷ Ibid, 150.

narrative text through extensive reading of short story, while the control group was taught reading narrative text through traditional technique.

2. Validity

Validity is the level to which score on a test enable one to make meaningful interpretation.⁸ In this study, the validity which was used is content validity. The test called valid when the items of test represent the appropriate content. To measure whether the test has good content validity or not, the writer compared the test materials with the materials stated in the subject matter or curriculum. The result shows that the test has good content validity because all items test represents narrative text materials. To strengthen the validity of the instrument, the validation also took from the English teacher at SMA Avisena (see appendix 4).

3. Reliability

Reliability describes the consistency of test score from one measurement to another. In this study, the reliability which was used is split half reliability. According to Ary et al, by using split half reliability, we can know the reliability of the test from one single test. The result of the test is divided into 2 parts, odd numbered questions and the even numbered questions. The members of the test were the students from X-1 class which are not include in

⁸Donald Ary et al, *Introduction to Reasearch in Education*. (New York: Holt, Rinehart and Winston, 1990), 242

experimental group or control group. The split half reliability was calculated with the following formula:

$$r_{\frac{11}{22}} = \frac{N \sum Y_1 X_1 - (\sum X_1) (\sum Y_1)}{\sqrt{\{(N \sum X_1^2) - (\sum X_1)^2\} \{(N \sum Y_1^2) - (\sum Y_1)^2\}}}$$

Explanation:

X : The total of odd numbered questions

Y : The total of even numbered questions

N : the number of the students.

After the value was gotten, it still needs to be corrected with Spearman Brown formula. The formula as follows:

$$r_{11} = \frac{2 \times \left(r_{\frac{11}{22}} \right)}{1 + \left(r_{\frac{11}{22}} \right)}$$

The criteria to interpret the result as follows:

Table 3.1

Reliability of the test

Scale	Level of Reliability
0.00-0.20	Not reliable
0.20-0.40	Less Reliable
0.40-0.60	Reliable enough
0.60-0.80	Reliable
0.80-1.00	Very Reliable

Before it was calculated, the total of odd numbered questions (X) and even numbered questions (Y) were calculated manually using Microsoft excel (see appendix 5). This table bellow presented the result of manual calculation.

Table 3.2

ΣX_1	313
ΣY_1	321
ΣX_1^2	2634
ΣY_1^2	2805
$\Sigma X_1 \cdot Y_1$	2667

The calculation of Split Half Reliability as follows:

$$\begin{aligned}
 r_{\frac{11}{22}} &= \frac{N \Sigma Y_1 X_1 - (\Sigma X_1) (\Sigma Y_1)}{\sqrt{\{(N \Sigma X_1^2) - (\Sigma X_1)^2\} \{(N \Sigma Y_1^2) - (\Sigma Y_1)^2\}}} \\
 &= \frac{38.2667 - (313)(321)}{\sqrt{\{(38.2634) - (313)^2\} \{(38.2805) - (321)^2\}}} \\
 &= \frac{101346 - 100473}{\sqrt{\{(100092 - 97969) \cdot (106590 - 103041)\}}} \\
 &= \frac{873}{\sqrt{2123.3549}} = \frac{873}{\sqrt{7534527}} = 0.318 \\
 r_{11} &= \frac{2 \times \left(r_{\frac{11}{22}} \right)}{1 + \left(r_{\frac{11}{22}} \right)} = \frac{2 \times 0.318}{1 + 0.318} = \frac{0.636}{1.318} = 0.48
 \end{aligned}$$

Based on the calculation above, it was found that the reliability of the test was 0.48. It means that the result included in scale 0.40-0.60 which means

the level of reliability is reliable enough to be used. So this instrument is appropriate to be used as the instrument of this research.

G. Research Procedure

The writer was conducted three procedures in implementing reading narrative text through extensive reading of short story, there were finding the equal groups, organizing the treatment, and organizing the test. The detail explanation was explained as follows:

1. Finding the equal groups

To find the equal group, the writer used test. The test is used to determine the similarity of two groups: the experimental group and the control group. The classes that were given test had been chosen by English teacher. English teacher recommended the writer to give test at X-2 and X-3 class. The test contained some questions about narrative text. Narrative text is one of genre text which is based on the syllabus of class X in first semester. The test consists of 25 questions in form of multiple choices.

The result shows that in X-2 class, the total of the first test score was 2088, while the mean of the first test score was 54.9. While in X-3 class, the total of the pre-test score was 2124, while the mean of the pre-test score was 55.9. It showed that both of groups had a similar ability in reading before the treatments were given.

Based on the result of test above, the writer chose X-3 as experimental group and X-2 as control group. It based on English teacher's recommendation that the writer should choose X-3 as experimental group.

2. Organizing the Treatment

The purpose of this experimental study is to see the effect of two different groups: experimental group and control group. The experimental group was taught reading narrative text through extensive reading of short story, while the control group was taught reading through traditional technique that usually teacher use when teaching reading narrative text. The schedule of giving treatment was figured out in the text following table;

Table 3.3
The Research Procedure

No	Experimental group		Control group	
	Date	Theme/material	Date	Theme/material
1	19 th November 2013	Treatment 1: Taught reading narrative text through extensive reading of short story.	19 th November 2013	Treatment 1: Taught reading narrative text through traditional technique.
	25 th November 2013		25 th November 2013	
2	26 th November 2013	Treatment 2: Taught reading narrative text through extensive reading of	26 th November 2013	Treatment 2: Taught reading narrative text through traditional technique.
	2 nd December 2013		2 nd December 2013	

		short story.		
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The Experimental Group

Treatment for the experimental group was conducted for 4 meetings which consisted of 2 treatments. First treatment conducted for two meetings because based on theory that extensive reading can be done in and outside the class. In the end of first meeting the students were given a homework that allowed them to read some short stories from any sources and report it. And the report was reported in second meeting, so the second meeting was focused on the students' homework. This treatment was conducted by using extensive reading of short story in teaching narrative text.

1) First Treatment

a. First Meeting

The first meeting was conducted on Tuesday, 19th November 2013 on 1st and 2nd meeting in X-3 class. The class consisted of 38 students. The steps of teaching narrative text through extensive reading of short story as follows;

1. Teacher opened the class by reading basmalah.
2. Teacher asked whether students have heard the term of extensive reading or not yet.

3. Then teacher explained what the meaning of extensive reading is and what the benefits are.
4. Teacher explained about narrative text and told that one of narrative text is short story.
5. Teacher provided 25 short stories and copied each short story.
6. Then students chose one of short story they want to read that was provided by the teacher.
7. After selecting short story that they want to read, students were grouped based on the same title. Each text had been duplicated, so students with the same title will be partner.
8. Then the students were given 15 minutes to finish reading the short story and give them 10 minutes to discuss with the partner in finishing the questions that were given by the teacher
9. Teacher went around to check whether any difficulties experienced by each partner or not.
10. After that, some partners will present the results of the discussion in front of the class. Through the presentation, hopefully all partners can determine the content of short story that has been selected by the other partner. So that, they would know whether the selected text by another partner interesting or not to be read.

11. Then each partner chooses a short story from the other partner that they interest and read it.
12. Partners who had not present yet would report the answer in front of the class.
13. Teacher distributed hand-out to students and explained the homework that they will work. Task: students read a short story they want to read individually. Text can be searched through the internet, newspapers or magazines. The amount of short story was based on the students' choice. Then they wrote a report in accordance with the hand-out given the teacher and bring a print-out of the short story had been read.
14. The teacher closed the classroom with reading hamdalah.

b. Second Meeting

The second meeting was conducted on Monday, 25th November 2013, on 5th and 6th meeting in X-3 class. This meeting was the follow-up of the first meeting. This meeting concerned on students' homework about their report toward the short stories they had read. The steps as follows;

1. The teacher opened the class by reading basmalah
2. Teacher determined whether the student had completed the homework or not.

3. Students discussed their homework by reporting to the class based on their wish. Through the report, other students can find out whether the text interesting or not to be read.
4. Teachers assisted student who was in front of the class.
5. After report activity was completed, each student recommended texts they had read to a friend beside them. Their friends could choose any short story that they want.
6. The teacher asked the students to read the text from a friend that they choose.
7. Each student read the text selected, the teacher gives them 10 minutes to read.
8. Teacher went around to check whether any difficulties experienced by students or not
9. After reading, the teacher divided the hand-out on questions like: "do you like the short story recommended by your friends?", "What is the short story about?", And "write some new vocabularies and find the meaning ".
10. Teachers gave students 15 minutes to work.
11. Then some students reported the answer in front of the class.
12. The teacher closed the classroom with reading hamdalah.

2) Second Treatment

The second treatment also was conducted for two meetings. The third and the fourth meeting were conducted on Tuesday, 26th November 2013 and Monday, 2nd December 2013. The steps were the same as the first treatment.

The Control Group

Treatment for the control group also was conducted for 4 meetings which consisted of 2 treatments. First treatment conducted for two meetings. This treatment was conducted based on the technique that usually English teacher does. English teacher used Student Worksheet (LKS) and textbook in teaching process, include teaching narrative text. In the first treatment, the teacher used LKS.

1) First Treatment

a. First Meeting

The first meeting was conducted on Tuesday, 19th November 2013th and 6th meeting in X-2 class. The class consisted of 38 students. The steps of teaching narrative text through traditional technique as follows;

1. Teacher opened the class by reading basmalah.
2. Students were asked to read a summary of the material narrative text that was provided on the Student Worksheet.

3. Teacher explained the material that will be discussed briefly on the board.
4. After reading the material, students were asked to read a narrative text that provide in Students Worksheet.
5. The teacher asked the students to work on the questions. The questions were in form of WH and true-false questions toward the text. In Student Worksheet, there were some texts followed by some questions.
6. The teacher sat on the bench while watching the students who were reading and work on the questions.
7. Students were given a long enough time to read the text and answered questions related to the text.
8. Once all students have finished, student worksheets exchanged to students next to be corrector, the answer was corrected together.
9. The teacher pointed to some students to write the answers on the board in turn. If there was wrong answer, teacher would show the correct answer directly to the student.
10. After that, the teacher asked whether the students are clear with the material or not.

11. Teachers gave homework to answer questions on the worksheet.

12. The teacher closed the lesson by reading hamdalah.

b. Second Meeting

The second meeting was conducted on Monday, 25th November 2013, on 1st and 2nd meeting in X-2 class. This meeting was the follow-up of the first meeting. This meeting was concerned on students' homework in their worksheet. The steps as follows;

1. The teacher opened the class by reading basmalah.
2. Teacher asked students about homework and discussed it, the answer was corrected together.
3. The teacher pointed to some students to write the answers on the board in turn.
4. Students corrected their wrong answers on their own worksheet.
5. After that, students were asked to read a summary of the next page of narrative text material that was provided on the Student Worksheet.
6. After reading the material, students were told to work on the questions that provided in the Student Worksheet again.

7. Teacher sat on the bench while watching the students who were reading and work on the questions.
8. Students were given a long enough time to read the text and answered questions related to the text.
9. Once all students have finished, student worksheets exchanged to students next to be corrector, the answer was corrected together.
10. Teacher pointed to some students to write the answers on the board in turn.
11. After that, the teacher gave a score to the students by calling students' name one by one, then the corrector answered how many wrong answers from students who called.
12. The teacher closed the lesson by reading hamdalah.

2) Second Treatment

The second treatment also was conducted for two meetings. The third and the fourth meeting were conducted on Tuesday, 26th November 2013 and Monday, 2nd December 2013. The steps were the same as the first treatment.

3. Organizing the Test

After giving the treatment to both groups, the final test was conducted. Final test was conducted on Tuesday, 3rd December 2013. This test is used to

measure the students' achievement after receiving both of techniques. The material of this test contained some questions about narrative text. Narrative text is one of genre text which is based on the syllabus of class X in first semester. The test consisted of 25 questions in form of multiple choices.

H. Data Collection Technique

The data of the study was the score of students' reading test. The test was given to the experimental group and the control group after receiving treatment. The experimental group was taught reading narrative text through extensive reading of short story, while the control group was taught reading narrative text through traditional technique. The score was collected through the test in order to know the difference score between two groups that were taught narrative text through extensive reading of short story and through traditional technique.

I. Data Analysis Technique

After collecting the data of the final test from the experimental group and control group, then the researcher measured the score differences from the final test of the experimental group and the control group by the statistical calculation. In this study, the writer used t-test formula to find out whether the mean difference between them was significant or not. T-test is used to measure and compared the differences of means score between experimental group and

control group⁹. The students' scores will be analyzed statistically by using a procedure of t – test, with the steps below:

1. The writer calculated the mean from overall scores of the test of both groups.

The calculation of the mean used the following formula:

$$MEAN: \sum \frac{fx}{N}$$

Where: M = mean

$\sum fx$ = total of the test

N = total of students

2. After collecting the data of the test overall score from both of groups, the writer compare the mean score from both of groups
3. After comparing mean, the writer analyzed the data through t- test to find out whether the difference of the scores between them was significant or not.

Through the following formula:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}}$$

Where:

\bar{x}^1 = The average score of experimental group

\bar{x}^2 = The average score of control group

⁹A.E.Bartz, *Basic Statistical Concepts in Education and the Behavior Sciences* (Minneapolis: Burgess Pub.Co, 1976). p.293

S_1 = The derivation of control group

S_2 = The derivation of experimental group

X_1^2 = The variant of control group

X_2^2 = The variant of experimental group

N_1 = The numbers of control group

N_2 = The numbers of experimental group¹⁰

4. After calculating all of the scores, the writer calculated the number of degree of freedom by adding the individual of each group, then subtract of two. The formula as follows:

$$df = N_1 + N_2 - 2$$

Where:

df = degree of freedom

N_1 = number of subject in experimental class

N_2 = number of subject in control class

5. After doing those steps, the writer concluded the result of the research by test the hypothesis.

¹⁰ Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R & D*, (Bandung: Alfabeta, 2009), 122