

CHAPTER III

RESEARCH METHOD

In this chapter, the researcher discussed Method of Study, Operational Definition, Research variable, Population and Sample, Technique for Collecting Data, and Technique for Analyzing the Data.

A. Operational Research

The title of this research was “The Effectiveness Of Using Literature Circle To Improve Reading Comprehension at the Ninth Grade Students Of MTs NEGERI 1 OKU”.

- a. Effectiveness is the capability of producing a desired result or the ability to produce desired output. When something is deemed effective, it means it has an intended or expected outcome, or produces a deep, vivid impression.
- b. Reading is the activity of looking at printed words and understanding or comprehending the information, or the act of saying those words out loud or of interpreting those words.
- c. Literature Circle is a particular group of people which analyzed the information from book, digital, etc. Literature circles give students the opportunity to talk about books with their peers. Through these conversations they build community, learn critical speaking and listening behaviors, deepen their understanding of books.

- d. Reading comprehension is the ability to process text, understand its meaning, and to integrate with what the reader already knows.

B. Research Method

In this research, the researcher used experimental research. An experimental research is a testing the independent variable (s) to determine whether it influences a dependent variable(s) (Creswell, 2012). During the study, the researcher used two variables, independent and dependent variable. The independent variable (X) in this research is the used of literature circle, while the students comprehension in reading (narrative text) as dependent variable (Y). In brief, the researcher was investigated that the use literature circle as independent variable to the students comprehension in reading (narrative text) dependent variable.

Furthermore, the researcher applied pre-experimental research. In the pre-experimental design, the researcher observed 1 main group and intervened in it throughout the study. In this design there is no control group to compare with the experimental group (Creswell, 2012). So it can be said that there are external variables that affect the formation of the dependent variable. This happens because there is no control variable so that it can affect the dependent variable, where the dependent variable itself is not necessarily influenced by the independent variable. Through this design will be known the effectiveness of the implementation of character education before and after treatment. Therefore, the researcher was gave a pre-test (initial test) and post-test (final test).

Pre-experimental design (one group pre-test and posttest), this design involved one group that is pre-test (O1), expose to treatment (X) and post-test (O2). It aims to know whether there is significant development before and after using Literature Circle that can improve student reading comprehension in narrative text. The research design that will be use in this research as following table below:

Table 3.1. Research Design of One Group Pre-Test and Post Test

Pre-Test	Treatment	Post-test
O1	X	O2

Gay L.R,et al. (2006)

Where:

O1: Pre-test

T: Treatment

O2: Post-test

C. Variable of the Research

a. Independent Variable

The independent variable is a variable that is state to cause some outcome. In this research, the independent variable is the used of literature circle.

b. Dependent Variable

The dependent variable is the outcome of the independent variable; it is the effect. Dependent variable observer in this research is students comprehension in reading (narrative text).

D. Population and Sample

a. Population

Equally important element in conducting research is determining population and sample, McMillan and Schumacher (2010) defined the population as “a group of elements or cases, whether individuals, objects, or events, that conform to specific criteria and to which we intend to generalize the results of the research”. The population of this research was the ninth grade students’ in MTs Negeri 1 OKU. Based on the researcher experienced due PPLK activities on MTs Negeri 1 OKU, there are seven class of the ninth grade students are 240 students. The following table is the number of the ninth grade students:

Table 3.2. The Population of Ninth Grade Student of MTs Negeri 1 OKU

No.	Class	Male	Female	Total
1	IX.A	16	21	36
2	IX.B	-	36	36
3	IX.C	-	37	37
4	IX.D	-	30	30
5	IX.E	36	-	36
6	IX.F	31	-	31
7	IX.G	33	-	33
Total				240

Source: Tata Usaha MTs Negeri 1 OKU

b. Sample

The sample is a representation of the larger population signified and is selected to meeting specific criteria and characteristics allowing the researcher to generalize the results of the study to the larger population (McMillan & Schumacher, 2010). In this research, the researcher used purposive sampling technique and choosed IX.B class as experiment class because it was recommended

by Lely Fitriani, S.Pd as 9th grade English teacher in MTs N 1 OKU, and she said to the researcher that the students in the IX.B class are easier to understand and excited in learning English. In other word, the researcher used one class to conduct this research, that is class IX.B that has total 36 students which it can be see on the table below.

Table 3.3. Sample of the Research

No	Class	Group Categorize	Male	Female	Total of Sample
1	IX.B	Experimental Group	-	36	36
Total					36

E. Technique for Collecting Data

The research design in this research was used a pre-experimental method, with one group pretest and posttest design. The researcher used one-group pretest posttest design usually involves three steps: (a) administering a pretest measuring the dependent variable; (b) applying the experimental treatment T to the subjects; (c) administering a posttest, again measuring the dependent variable. Differences attributed to application of the experimental treatment are then evaluated by comparing the pretest and posttest score.

a. Pre-test

Pre-test was the initial data collection before doing the treatment, the student was give the pre-test to find out where their prior knowledge and to know the score of the students who eventually find out the results of whether there was an increase or not in the post-test.

b. Treatment

Treatment was used in teaching and learning process. The treatment carry out four meeting and each meeting the researcher gave one narrative text by as a teaching material. In the treatment there are four meetings to find out the reading comprehension of students. The researcher divided students into some groups which consists of 8 student and give them reading text. Also, the researcher implemented literature circle role. The researcher allowed the student to identify dan analyze the narrative text that they got before. After the student analyzed the text, every group have to perform in the front of class to tell what they analyze before.

c. Post-test

Post-test was initial data collection after doing the treatment to know the achievement and students' development after learning process in students reading comprehension by literature circle throught narrative text which the results compare from the difference between the pre-test and post-test.

Before the researcher collected the data, the research instrument was used for pretest and posttest with 30 mutiple choices question which it must be tested first on respondents who are outside the sample class, namely the experimental class. Both of the test were asked the student to fill the answer (mutiple choice) based on narrative text which they read before, both of test is measure students reading comprehension of the ninth grade of MTs Negeri 1 OKU.

Table 3.4. Specification of Test Item

No	Basic Competence	Indicator	Number of question	Question form
1	3.7 Comparing social functions, text structures, and linguistic elements of several oral and written narrative texts by giving and asking for information related to fairytales, short and simple, according to the context of their use.	<ul style="list-style-type: none"> • Students are able answer questions about general description in the text • Students are able to answer questions about certain information contained in the text. • Students are able answer questions about the implied information contained in the text • Students are able answer questions about referencing words in the text • Students are able to answer question about the moral value from the text 	<p>1, 7, 21</p> <p>3, 4, 8, 11, 14, 16, 17, 19, 20, 22, 30</p> <p>2, 9, 10, 12, 13, 15, 18, 23, 24, 26, 27, 28, 29</p> <p>6, 25</p> <p>5</p>	Multiple Choices

Source: Silabus Pelajaran Bahasa Inggris untuk SMP/MTs

In addition to having to be tested first, the researcher conducted validity and reliability test. The goal was to find out whether the data is valid or not, and whether

it is reliable or not, so that later it can be given to the sample class, namely the experimental class. After the instrument trial was held, the researcher then analyzed the results of the instrument trial. These trials are in the form of validity and reliability tests.

F. Validity and Reliability of Test Instrument

a. Validity Test

Validity is defined as the extent to which the instrument measures what is suppose to measure. Brown (2004) describe validity as the degree of correctness of the assessment result in representing the skill being assessed. Moreover, The type of validity used in this research was criterion related validity. Criterion related validity is a validity test that is carried out by comparing instruments with certain criteria (Purwanto, 2009). The results of the measurement of a test to be checked for the level of validity are compared with a criterion. The comparison result which is the validity coefficient can be calculated using certain statistical techniques. The researcher carried out the validity of the criteria by distributing the research instrument tryout in IX. C class with 37 students with the consideration that the class has the same criteria as Class IX. B as experiment class in terms of similiarity curriculum, Base and Core Competence, English material provided, and same English teacher who teached in both class. After Try out the instrument, the researcher calculated it by Using Correlation Pearson with Criteria:

- If $r_{count} > r_{table}$, the item was valid.
- If $r_{count} < r_{table}$, the item wasn't valid

The following are the results of the validity test of research instrument (test).

Table 3.5. The Result of Validity Test Item

No.	Number of Item	r _{count}	r _{table}	Conclusion
1	Item 1	0,459	0,325	Valid
2	Item 2	0,471	0,325	Valid
3	Item 3	0,318	0,325	Invalid
4	Item 4	0,459	0,325	Valid
5	Item 5	0,624	0,325	Valid
6	Item 6	0,517	0,325	Valid
7	Item 7	0,416	0,325	Valid
8	Item 8	0,447	0,325	Valid
9	Item 9	0,471	0,325	Valid
10	Item 10	0,798	0,325	Valid
11	Item 11	0,188	0,325	Invalid
12	Item 12	0,469	0,325	Valid
13	Item 13	0,643	0,325	Valid
14	Item 14	0,546	0,325	Valid
15	Item 15	0,798	0,325	Valid
16	Item 16	0,786	0,325	Valid
17	Item 17	0,265	0,325	Invalid
18	Item 18	0,045	0,325	Invalid
19	Item 19	0,161	0,325	Invalid
20	Item 20	0,384	0,325	Valid
21	Item 21	0,447	0,325	Valid
22	Item 22	0,546	0,325	Valid
23	Item 23	0,517	0,325	Valid
24	Item 24	0,351	0,325	Valid
25	Item 25	0,643	0,325	Valid
26	Item 26	0,310	0,325	Invalid
27	Item 27	0,075	0,325	Invalid
28	Item 28	0,310	0,325	Invalid
29	Item 29	0,233	0,325	Invalid
30	Item 30	0,111	0,325	Invalid

Based on the table 3.5, there were ten item that invalid because $r_{\text{count}} < r_{\text{table}}$ of 37 in 5% significance table (0.325). (item 3, item 11, item 17, item 18, item 19, item 26, item 27, item 28, item 29, item 30) and other 20 item which it valid because

$r_{\text{count value}} > r_{\text{table}}$. So, the researcher used 20 valid item as research instrument in pre-test and post-test for experiment class.

b. Reliability Test

A test is said to be reliable if the test shows the determination of the test results or changes that are not meaningful if the test is tested many times. According to Creswell (2012), Reliability means that scores from an instrument are stable and consistent. In this case, a reliable test means a test that can be trusted to be used as a data collection tool. To know that the test used is reliable, the researcher used Cronbach Alpha Test with the help SPSS program. To determine a reliable test, then the minimum value limit of 0.60 correlation is acceptable.

Table 3.6. Case Processing Summary

Case Processing Summary			
		N	%
Cases	Valid	37	100,0
	Excluded ^a	0	,0
	Total	37	100,0
a. Listwise deletion based on all variables in the procedure.			

Based on the table 3.6, we can see that the cases valid are 37 students, excluded 0, and the total students follow the trial test was 37 students.

Table 3.7. Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
,834	30

Based on the table 3.7, we can see that Cronbach's Alpha was 0.834, and number of items was 30. The score obtained compares to rule of thumb of reliability was 0,60. The score obtained of Cronbach's Alpha was 0.834 higher than 0.60, it means that the test was reliable.

G. Technique for Analyzing Data

a. Scoring the Students Answer

The researcher calculate the student score in pre-test and post-test by used this formula:

$$S = \frac{R}{N} \times 100$$

Where:

S: Score of the test

R: The number of correct answer

N: The number of question

b. Percentage Students Answer

The researcher calculates the percentage of students' score in pre-test and post-test by used the following formula:

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

Where:

P: Percentage of Student Answer

F: Frequence of Student Answer Score

N: Total of Sample

(Sudjiono in Fasetriya, 2016)

c. Describing Students Score

The researcher make description of students score in pre-test and post-test by used the following formula:

Table 3.8. The Description of Students Score Classification

Score Interval	Classification
>80	Very Good
66 – 79	Good
56 – 65	Average
46 – 55	Poor
<45	Fail

(Sudjiono in Fasetriya 2016)

d. Normality Test

In this research, the normality test conducted to determine whether the data from the pretest and post-test results in the experimental class were normally distributed or not. According to Lestari and Yudhanegara (2017: 243) "This test is carried out to find out whether the distribution of data is normally distributed or not". The normality test that used in this research was the Shapiro Wilk test. The Shapiro-Wilk test was chosen because the sample in this study less than 50 sample. The test analyzed with the help SPSS program with a significant level of 5% or 0.05. Data is declared normally distributed if Asymp.Sig (2-tailed) is more than 5% or 0.05. Shapiro-Wilk test steps as follow:

1. Input pretest and posttest data in the DataSet.
2. On the SPSS menu, select the Analyze Descriptive Statistics Explore menu.
3. Input data in the Dependent list box by clicking the arrow, then click plot and check normality plots with test in explore plots, then click continue. To get the output display of statistical values along with plots, select both on the display.

4. Click OK, the normality data output will appear.

e. Homogeneity Test

After normality test, the researcher then conducted a homogeneity test with the intention of showing that the two groups of sample data had the same variance. The two tests (normality and homogeneity tests) were carry out by researchers to meet the requirements in conducting data analysis in order to obtain reliable interpretation results from a statistical point of view.

The researcher conducted homogeneity test use Levene Test with the help of SPSS program with the following working steps:

1. Use normality test input data > Analyze > Compre means > One-Way ANOVA.
2. The One-Way ANOVA dialog box will open, move the Average variable into the Dependent list box and the class variable into the Factor box.
3. On the Post Hoc click option, the Post Hoc dialog box will open and then activate the Bonferroni and Tukey options, then click Continue.
4. In the Options option, enable Descriptive and Homogeneity of Variance Test, then click Continue
5. After that, it will return to the One-Way ANOVA dialog box and click OK.
6. The homogeneity test output data will come out together with the One-Way ANOVA test, but what is taken in this case is the homogeneity test output only.
7. A data can be said to be homogeneous if it has a significance value > 0.05 .

f. Hypothesis Test

T test is a technique that used to determine the significance of the comparison (comparing the average value of one group with the average of another group). T-test can be done if the data is normally distributed and homogeneous, researcher conducted hypothesis test use Paired-Samples T Test (T-test of two paired samples). Two-tailed or two-sided test in the SPSS program. Hypothesis testing was carried out using a comparative hypothesis test between two different variables, namely between students' reading comprehension ability before using Literature Circle and students' reading comprehension ability after using Literature Circle. Before testing the hypothesis, it is necessary to formulate a hypothesis first.

Ha : The significance value (2-tailed) less than 0.05 indicates a significant difference between the initial and final variables. This shows that there is a significant effective of using literature circle in improving students reading comprehension.

H0 : The significance value (2-tailed) of more than 0.05 indicates that there is no significant difference between the initial and final variables. This shows that there is no significant effective of using literature circle in improving students reading comprehension

The steps in using the T-paired test on SPSS are as follows:

1. Enter pretest and posttest score data on SPSS.

2. Click the analyze menu – compare means – paired-sample Ttest.
3. Enter the pretest score variable in the variable box.
4. Enter the posttest score variable in the variable box 2
5. Click OK. For next process.