

CHAPTER III

RESEARCH METHOD

In this chapter the writer presents research method that used in this research. It includes research design; population, sample and sampling; variable of the research; data source; research instrument; validity and reliability testing; normality and homogeneity testing; method of collecting data; and data analysis. Each of the items is discussed as follows.

A. Research Design

The research employed Quasi-experimental research design. This research was conducted by comparing the score of experimental group and control group. The control group was the class which was taught by using Conventional Technique. The class which was taught by using Write Around Technique as a experimental group.

The design used in this research was adopted from Ary (2010:648) as follows :

Table 3.1

The Illustration of Research Design

Group	Pre-test	Independent Variable	Post-test
E	Y_1	X	Y_2
C	Y_1	-	Y_2

Note :

- E : Experimental group (VII C)
- C : Control group (VII E)
- Y_1 : Pre-test for both of groups
- X :Treatment for experimental group (Write Around Technique)
- Y_2 : Post-test for both of groups

From the Table 3.1 above, The writer took two classes to be studied. One class was an experiment class and another class was to be a control class. The experiment class, was given pre-test, treatment and post-test. The treatment given was Write Around Technique. Meanwhile, for control class, they were given pre-test and post-test without treatment.

B. Population, Sample and Sampling**1. Population**

A population can be defined as all member of any well-defined class of people, event or object (Ary, 2010: 148). Meanwhile, according to Ary (2006:167) population was the larger group about which the generalization was made. Based on the description above the writer take conclusion that the population was whole research subject used by the writer.

The population in this research was the first grade of SMPN 6 Kediri in the academic year of 2018/2019. There was eight classes in the first grade: VII

A, VII B, VII C, VII D, VII E, VII F, VII G and VII H. Each class consists of 30 until 32 students and the total quantity were 256 students with 154 students was girls and 102 students was boys.

2. Sample

Sample was a group of subject or participant (students) was chosen from the populations to be a representative (Fraenkel and Wallen, 2009:90). A sample was selected because the population was too large to be studied in its entirety therefore the sample must be taken from population in order it can be representative of the general population.

As a sample, the writer took VII C and VII E classes. Then, VII C that consists of 32 studens as an experimental class, and VII E that consists of 32 studens as a control class. In this research, the writer just used 27 students each class because just those the available students in the class. It was caused there were some students in each class who followed sport national competition and there were some students who got sick.

3. Sampling Technique

Sampling was a process of selecting a number of the students who will be represent from the large group (Ary, 2010:155). In selecting the sample, the writer used purposive sampling technique. Purposive sampling was technique to determine sample with a particular consideration (Lodico, 2006:7).

In this research, the writer took two classes of first grade at SMPN 6 Kediri in academic year 2018/2019, those were VII C as experimental class and VII E as control class. The writer took both of two classes based on consideration that both of two classes have the average writing ability almost the same in the case of learning result.

C. Variable of The Research

In this research they were two variables. They were independent variable and dependent variable.

1. Independent Variable

The independent variable is a variable that cannot be affected by the other variable but it can influence other variable. As Creswell (2012: 116) stated that “An independent variable was an attribute or characteristic that influences or affects an outcome or dependent variable.” The independent variable of this research was the use of Write Around Technique

2. Dependent Variable

The dependent variable was not manipulated by the researcher, but it was affected by the independent variable. As Creswell (2012:115) stated that “A dependent variable was an attribute or characteristic that was dependent on or influenced by the independent variable.” The dependent variable of this research was the students’ achievement in writing descriptive text.

D. Data source

The data were very significant in the research. The research will not be able to get information without the data. In this research, data sources was score of the writing pre-test and post-test of VII C as exsperiment class and VII E as control class of first grade at SMPN 6 Kediri.

E. Research Instrument

In this research, the writer used test in the form of writing test as the instrument. That form was used to collect the data about students' achievement in writing descriptive text. The writer applied pre-test and post-test.

1. Pre-test

Pre-test was given to the both of classes before getting treatment. The form of pre-test was writing test. The writer asked the students to write a simple descriptive text as far as they can about one of the themes those were person, animal and thing. In assessing students' achievement in writing descriptive text, the writer used scoring rubric that consisted of four items: grammar, vocabulary, organization and mechanic. (*see appendix 1*). In this research, the writer gave the pretest to control class or VII E on Monday, 25th March 2019 and the writer also gave the pretest to treatment class or VII C on Tuesday, 26th March 2019.

2. Post-test

Post-test was given to the both of classes to measure students' achievement in writing descriptive text after getting treatment. The form of post-test was writing test. In the post-test, the writer asked the students to write a short and simple descriptive text that appropriate with the theme which have studied, that were about person or animal or thing. In this research, the writer gave the post-test for control class was on Thursday, 4th April 2019 at 09.00 a.m. and experiment class on Thursday, 4th April 2019 at 10.30 a.m.

F. Validity and Reliability Testing

1. Validity

The writer used validity to know whether the research instrument was valid or not. As Brown (2004:22) said that, "Validity was the extent to inferences made from assessment result are appropriate, meaningful, and useful in terms of the purpose of the assessment." The measure whether the test has a good validity, the writer analyzed the test from content validity, construc validity and face validity.

a. Content validity

Content validity was relevant. It means that the items or tasks in the test match with the test as a whole was supposed to assess. When the objectives of the programme were set out in detail, for example in a syllabus that lists skills

or functions, then the content validity can be assessed by comparing the kind of language generated in the test against the syllabus (Underhill, 2006:106).

The instrument of the research used content validity (*see appendix 4*) because the descriptive text as materials was used for teaching writing exist on syllabus Curriculum K13. Besides, the test was designed based on basic competence in syllabus Curriculum of K13 (*see appendix 2*).

b. Construct validity

Construct validity was any theory, hypothesis, or model that attempts to explain observed phenomena in our universe of perception (Brown, 2004:25). It means that it was a instrument to measure just the ability which supposed to measure. In this study, to know the students' achievement in writing descriptive text, researcher tested students used writing test with asked students to write a short and simple descriptive text that appropriate with the theme which have studied in that day for example about person or about thing or other. Meanwhile, the technique of scoring students' achievement in writing descriptive text based on the four components of writing; they are vocabulary, grammar, organization and mechanic.

In this research, scoring rubric adapted and modified by writer from English teacher association for junior high school in Kediri. They were as follows:

Table 3.2 Scoring Rubric of Writing

No	Aspect of Assessment	Criteria	Score
1	Vocabulary	Very appropriate	5
		Appropriate	4
		Quite appropriate	3
		Less appropriate	2
		Not appropriate	1
2	Organization	Very coherent	5
		Coherent	4
		Quite coherent	3
		Less coherent	2
		Not coherent	1
3	Mechanic	Very careful	5
		Careful	4
		Quite careful	3
		Less careful	2
		Not careful	1
4	Grammar	Very good	5
		Good	4
		Quite good	3
		Less good	2
		Not good	1

Scoring guide:

$$\text{Score} = \frac{\text{Students' score totally}}{20} \times 100$$

To know classified the result of students' score, the writer made a rating scale. It can be seen below :

Table 3.3 The Score's Criteria

No	Interval Class	Criteria
1.	86-100	Excellent
2.	76-85	Good
3.	56-75	Average
4.	46-55	Poor
5.	0-45	Very Poor

c. Face validity

Ary (2010) as cited in Khoiriyah (2017 : 30) mentioned that “Face validity refers to the extent to which examines believe the instrument was measuring what was supposed to measure.” Therefore, the test was said to have face validity if examiners believe the instrument measures what was supposed to measure. Hence, the test which have no face validity may be refused by test-takers, teachers, or advisor. In this research, the writer had the face validity by consulting the expert (teachers english) that the subject of the research it was appropriate with the basic competence on syllabus (*see appendix 8*).

2. Reliability

Brown (2004:20) stated a reliable test was consistent and dependable. Lodico (2006:87), reliability refers to consistency of score, that was, an instrument's ability to produce “approximately” the same score for individual over repeated testing or across different raters. It mean that reliability of instrument was needed to make sure that the instrument can be consistent if

used in other time. Therefore, the instrument as the test was reliable. Reliability was used to know whether the test was consistent and reliable.

To know reability of the writing test, the writer used test retest method and conducted tryout to get score of students' achievement in writing descriptive text on Saturday, March 16th 2019 and Saturday, March 23th 2019. As Azwar (2012:34) said, "Test retest is a test that given two times with different respite time."

The two sets of scores gotten to know the reability of the test instrument. The writer used *Cronbach's Alpha* in SPSS 16.0 version to calculate of two set scores which was gained from the try-out test to know the reability of the test instrument. The result of reability testing can be seen in the Table 3.4 below :

Table 3.4 Reliability Testing (Tryout)

Reliability Statistics	
Cronbach's Alpha	N of Items
.932	2

Table 3.4 showed that Cronbach's Alpha was 0.932. The result of Cronbach's Alpha (0.932) was closer to 1. It means that the test was reliable. The criteria of reliability instrument can be divided into 5 classes, those are very reliable, reliable, enough reliable, rather reliable, and less reliable. The criteria of reliability can be showed as below:

Table 3.5 Criteria of Reliability

Interval coefficient	Correlation
0.80 - 1.00	Very reliable
0.60 – 0.79	Reliable
0.40 – 0.59	Enough reliable
0.20 – 0.39	Rather reliable
0.00 – 0.19	Less reliable

The result of calculation showed that reliability coefficient was 0.932 and the ideal reliability coefficient was 1. It can be seen in Table 3.4 that the instruments of this research were very reliable because 0.932 was closer to the ideal reliability coefficient that was 1.

G. Normality and Homogeneity Testing

1. Normality Testing

Normality testing was used to test whether the data were normal or not. Normal here means if the data have a normal distribution. To test the normality of the data, the writer used the *One Sample Kolmogorov-Smirnov* test with the provision that if the value of *Kolmogorov-Smirnov Z* > 0.05, the data were distributed normally. The hypotheses for normality testing are:

- a. H_0 : If the value of *Kolmogorov-Smirnov Z* < 0.05, it means that data were not normal distribution.
- b. H_a : If the value of *Kolmogorov-Smirnov Z* > 0.05, it means that data were normal distribution.

The result of the normality test computed by SPSS 16.0 version can be seen as follow on the Table 3.6 below :

Table 3.6 The Result of Normality Testing of Experimental and Control Class

One-Sample Kolmogorov-Smirnov Test			
		pretest_eks_ktr	posttest_eks_ktr
N		54	54
Normal Parameters ^a	Mean	76.94	81.67
	Std. Deviation	3.688	4.658
Most Extreme Differences	Absolute	.386	.306
	Positive	.386	.306
	Negative	-.262	-.212
Kolmogorov-Smirnov Z		2.838	2.252
Asymp. Sig. (2-tailed)		.000	.000

a. Test distribution is Normal.

Based on Table 3.6, it showed that the value of *Kolmogorov-Smirnov Z* for pretest was 2.838. Meanwhile, the value of *Kolmogorov-Smirnov Z* for posttest was 2.252. So, all of *Kolmogorov-Smirnov Z*'s value more than 0.05. It means that H_a was accepted and H_o was rejected. So, all of the data were normal distributed.

2. Homogeneity Testing

Homogeneity testing was conducted to know whether the gotten data has a homogeneous variance or not. To know the homogeneity, the writer used

One-Way ANOVA test with SPSS.16 by the value of *Levene Statistic* > 0.05 .

The hypothesis for homogeneity testing are:

- a. H_0 : If the value of *Levene Statistic* < 0.05 , it means that data was not homogeneity.
- b. H_a : If the value of *Levene Statistic* > 0.05 , it means that data was homogeneity.

The result of the normality test computed by SPSS 16.0 version can be seen as follow on the Table 3.7 below:

Table 3.7 The Result of Homogeneity Testing

Test of Homogeneity of Variances			
pretest_posttest			
Levene Statistic	df1	df2	Sig.
2.023	1	106	.158

Based on Table 3.7, it showed that the value of *Levene Statistic* was $2.023 > 0.05$, it means that H_a was accepted and H_0 was rejected. So, the data had homogeneous variance and it was qualified to be analyzed.

H. Method of Collecting Data

The method of collecting data used in this research was administering test. The writer used writing test to measure students' achievement in writing descriptive text.

1. Pretest

The writer gave the pretest for both experiment and control class to know the students' achievement in writing descriptive text before giving the treatment. In this research, the writer gave the pretest to control class or VII E on Monday, 25th March 2019 and the writer also gave the pretest to treatment class or VII C on Tuesday, 26th March 2019. The pretest asked the students to write a short and simple descriptive text, they were able to chose one of three themes those were person, animal and thing.

2. Post-test

The writer gave the post-test to the both of classes to know the students' achievement in writng descriptive text after getting the treatment. The writer gave the post-test for control class was on Thursday, 4th April 2019 at 09.00 a.m. and experiment class on Thursday, 4th April 2019 at 10.30 a.m. The posttest asked the students to write a short and simple descriptive text, they were able to chose one of three themes those were person, animal and thing.

I. Treatment

The writer applied Write Around Technique as treatment in experiment class. In experiment class the writer gave the treatment for fourth times. First meeting was done on Tuesday, 26th March 2019. Second meeting was done on Thursday, 28th March 2019. Third meeting was done on Tuesday, 2nd April 2019. The last meeting of treatment class was done on Thursday, 4th April 2019. The applied Write Around Technique can be seen in Table 3.8 below:

Table 3.8 Procedure of Write Around Technique in Experiment Class

No	Step	Teacher activity	Students activity
1	Opening	- Greeting - Praying - Checking attendance list. - The teacher reviews the material.	- Students answer greeting. - Students pray together. - Students confirm their attendance. - The students pay attention for review material
2	Main teaching	- The teacher divides the class into some group, each group consists of four or five students and each group fix who become the first person until the last person. - Teacher gives the topic and the paper for each group.	- The students move to their group and each group fix who become the first person until the last person. - Each group is ready to do the

		• The teacher asks the first person in each group write a sentence for a minute about the topic. • The teacher asks the next person of the group has to read and correct the sentence of previous person (if there is mistake). Then, he or she has to write a sentence for a minute to continue the story. The teacher repeats this activity until the last person in each group. • The teacher with all of groups evaluate the each written if there is enough time or just some written together. • Teacher asks students to make a short and simple descriptive text about the theme for that day.	activity. • The first person in each group writes a sentence about the topic. • The next person in each group read and correct the sentence of previous person (if there is mistake). Then, he or she writes a sentence for a minute to continue the story. • The students with the teacher evaluate the each written if there is enough time or just some written together. • students make a short and simple descriptive text about the theme for that day.
3.	Closing	• The teacher gives conclusion about what have been studied.	• Students listen the teacher's conclusion.

		• Teacher ends the class and asks students to pray.	• Students pray together.
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J. Data analysis

In this research, the writer used a quantitative data analysis technique. The quantitative data of this research was analyzed by using statistical method. The data was collected from pre-test before taught students and post-test after students were taught by using Write Around Technique in exsperiment class. The writer used *Independent Sample Test* through SPSS 16.0 for window to know the effectiveness of Write Around Technique on students' achievement in writing descriptive text. If the result of t-test was bigger than at the level of significant 0.050, the null hypothesis could not be rejected, it was indicated that Write Around Technique was not effective on students' achievement in writing descriptive text. Equally, if the significant level was lower than t-test at the level of significance 0.050, the null hypothesis could be rejected indicating that Write Around Technique was effective toward students' achievement in writing descriptive text.