CHAPTER III
RESEARCH METHODOLOGY

This chapter serves the steps taken to conduct the study consist with the subject of research designing. It consists of research method, research design, population and sample, research instrument, technique of data collection and technique of data analysis.

3.1 Research Method

Based on the purposed of the study has described by the writer in the previous chapter, research method used is quantitative method. According to Cresswell (20012:140) Quantitative research is identifies problem based on the trends to explain why something occurs, this research is focus which one variables effect the other variables.

3.2 Research Design

This research uses quantitative design which related with experimental design. According to Cresswell, (2002:13) one of the quantitative research characteristic is analyze the groups and relating the variables using statistical analysis.

This research is including in true experiments, one of kind experimental design. According to Ary et all (2010:305) that true experimental is the subject is randomly to group and the control are provide. Experimental research typically involves two classes which experimental group and control group with receives different treatment. This research used design pretest and posttest.

In this study, the writer chooses Barunawati Junior High School as the sample. In this school there are four classes for eighth grade namely VII A, VII B, VII C, and VII D. The classes VII A class as the experimental group and VII B as the control group.

3.3 Population and Sample

3.3.1. Population

In this research the population is all of the seventh grade students of SMP Barunawati in the academic year 2017/2018. Seventh grade students consist of VII A, VII B, VII C, and VII D.

3.3.2. Sample

According to John and James (2006:13) said that sampling is the small part of population that is selected by the writer for observation and analysis, by using it the writer can establish the characteristic of population.

To determine the number of sample of this research, the writer uses Snowball Sampling Technique. Cresswell (2012:209) stated that "snowball sampling is a form of purposeful sampling that typically proceeds after a study begins and occurs when the researcher asks participants to recommend other individuals to be sampled. Researchers may pose this request as a question during an interview or through informal conversations with individuals at a research site". By the statement above, the writer uses it to determine the number of sample. Based on to the writer interviews English Teacher at SMP Barunawat**i** Surabaya, Mr. Sapto. He said that VII A and VII B class is more effective to be used as sample of this study. He also recommended the writer to use VII A class as Control Group whereas VII B as Experimental Group. She said that two classes have same capability in learning English.

Based on interview above, the writer determine that VII A will get the treatment about teaching writing descriptive text using "Instagram" as media learning, whereas VII B will not get treatment.

3.4. Research Variables

There are two variables that were found related to the research. There are Dependent variables and Independent variables. The writer wants to explain about teaching writing using

3.4.1. Independent Variable

Independent variable is a variable that can stand alone without depend on the other. In this research, the independent variable is the using Instagram.

3.4.2. Dependent Variable

Dependent variable is a variable that cannot stand alone. In this research, the dependent variable is students' writing ability in writing descriptive text.

3.5. Research Instruments

In this research the writer uses some instruments to do the experimental research.

3.5.2. Pre Test

Pre-Test is given by the researcher before the students receive the material.

According to Creswell (2012:297) that Pre-Test is a measure on some or characteristic for the participant before they receive the treatment

In this research the writer give a pretest to both control and experimental group. Pretest that give about describing place and given to the VII A and VII B class with the same materials.

3.5.3. Post Test

Posttest is a test that is given by the writer to both classes after experimental group receives the treatment. According to Creswell (2012:297) that a posttest use to measure for participants in an experiment after receive the treatment.

In this research the teacher use the same task in pretest and posttest before.

3.5.4. Questionnaires

According John and James (2006:313) Questionnaires is used on factual information is desired while the opinions rather than facts are desired then an opinionnaire or attitude scale is used.

3.5.5. Rubric Assessment

This research uses scoring rubric that adopted on Oshima and Hogue. It is for scoring the test of experimental class and control class.

3.6. Research Procedure

3.1. Procedure of Collecting the Data

Control Class	Experimental Class
Pre Research	
1. Selected Group 2. Determining material about descriptive text and the topic for learn activities of the research . 3. Arranging and making lesson plan during learning the activities of the research 4. Determining the instrument of the research 5. Analyzing the instrument of the research 6. Doing Pre-Test	1. Selected Group 2. Determining material about descriptive text and the topic for learn activities of the research. 3. Arranging and making lesson plan during the activities of the research 4. Determining the instrument of the research. 5. Analyzing the instrument of the research. 6. Doing Pre-Test
Research Process	
a. Introducing and Explaining about material that will use in learning activities of the research. b. The teacher ask the students to make a text of descriptive text based on picture. c. The students practice in the class	1. Introducing and Explaining about material that will use in learning activities of the research. 2. Giving students treatment by using Instagram as media learning strategy in descriptive text. 3. The researcher ask the students to describing a place by using "Instagram". 4. The students practice in the class.
Research Closing	
1. The researcher conducting Post-Test to measure control class 2. Analyze the data of Post-Test. 3. The researcher will count the data and compare	1. The researcher conducting Post-Test to measure experimental class. 2. Analyze the data of Post-Test between control and experimental group.

between control and experimental group to know the effectiveness of this method.	3. the researcher will count the data and compare between control and experimental class to know the effectiveness of this method.

3.7.Validity and Reliability

3.7.1. Validity

Ary at all (2010:225) stated "Validity is the most important consideration in developing and evaluating measuring instruments. Historically, validity was defined as the extent to which an instrument measured what it claimed to measure. The focus of recent views of validity is not on the instrument itself but on the interpretation and meaning of the scores derived from the instrument. To get the content validity, the researcher matches with the curriculum K13

Kompetensi Inti

KI 1: Menghargaidan menghayati ajaran agama yang dianutnya.

KI 2: Menghargai dan menghayati perilaku jujur, disiplin, tanggungjawab, peduli (toleransi, gotong royong), santun, percaya diri, dalam berinteraksi secara efektif dengan lingkungan sosial dan alam dalam jangkauan pergaulan dan keberadaannya

KI 3: Memahami dan menerapkan pengetahuan (faktual, konseptual, dan prosedural) berdasarkan rasa ingin tahunya tentang ilmu pengetahuan, teknologi, seni, budaya terkait fenomena dan kejadian tampak mata.

KI 4: Mengolah, menyaji, dan menalar dalam ranah konkret (menggunakan, mengurai, merangkai, memodifikasi, dan membuat) dan ranah abstrak (menulis, membaca, menghitung, menggambar, dan mengarang) sesuai dengan yang dipelajari di sekolah dan sumber lain yang sama dalam sudut pandang/teori.

Kompetensi Dasar

4.7.2. Menyusun teks deskriptif lisan dan tulis sangat pendek dan sederhana, terkait orang, binatang, dan benda, dengan memperhatikan fungsi sosial, struktur teks, dan unsur kebahasaan, secara benar dan sesuai konteks kebahasaan, secara benar dan sesuai konteks.

3.7.2. Reliability

The writer uses standard competency and basic competency of curriculum to know the instruments are valid or not. The researcher must measure the realibility of the instruments. According to Ary at all (2010:236) that realibility is to show how is essential in any kind of measurement. Reliability of a measuring instrument is the degree consistenly. The researcher uses inter rater to scoring the test. According to Cresswell (2012:161) inter rater reliability is procedure when observer doing observation is made by two or more individual's behavior. The observer records the scores and compares it to see if the scores are similar or different. According to Surapranata (2004;99) commonly uses in measuring reliability. The formula is as follow:

$$r_{X1x2} = \frac{N\Sigma \times^1 \times^2 - (\Sigma \times^1)(\Sigma \times^2)}{\sqrt{(N\Sigma \times_1{}^2 - (\Sigma \times_1)^2 (N \times_2{}^2 - (\Sigma \times_2)^2}}$$

$X_{1=}$ (Rater 1)

X_2= (Rater 2)

n= Member of test

3.8.Data Collection Technique

To collection the data was started by pretest and ended by give the posttest.

a. First, the researcher conduct pretest to both classes which experimental and control class. The teacher does not give the explanation of the research at first, and then the test is done. Test is intended to know the students ability in make a short paragraph of descriptive text before treatment.
b. Second is the implementation of treatment that is given to students. The treatment aim to know the progress of writing ability during treatment was going on.
c. In the treatment on experimental class students, the teacher gives an explanation about descriptive text which consists of definition, generic structure, language features and exampe of Descriptive Text. After that the teacher opens the account "Instagram" to showing the post in the profile and instruction students to make a short paragraph in comment based on the picture. Next teacher gives instruction to students open their own account then students write it.

d. For control class it gives explanation about descriptive text by using Power Point that well prepared. The teacher used lecturing method to teach control class.
e. After the treatment had already been given, the both class of experimental and control is given posttest. Posttest conducts to experimental and control class. Next, the teacher and the researcher made a score for both test in experimental and control class. The result of the scoring then is compared with pretest score. So, the researcher know how far the effectiveness of using social media "Instagram" to improve students' writing ability in writing descriptive text.

3.9.Data Analysis Technique

The writer analyzing the data after has been collected by using SPSS 20.0 software. John and James (2006:351) state that analyzing the data using statistical procedure and enough information to the reader by using calculate of the data with hand or aid of computer. This activities of data collection technique by grouping data based on variable to aswer of the researcher's statement of the problem as well to examine the hypothesis.

3.9.1. Normality Test

The purpose of normality test is to know the data is normal or not. To check this data, the criteria of testing normality is if $\mathbf{P_{value} < \sigma}$ so that H_0 is refused.

H_0 = Sample of data is normal distribution

H_1 = Sample of data is not normal distribution

The criteria of the test based on *P*- value as below :

H_0 push away, if P ($_{value)} < \alpha$, so data is normal distribution

H_1 push away , if P ($_{value\ )} > \alpha$, so data is more normal distribution .

3.9.2. Homogenity

After the data is distributed normally, so it will continued by examining homogenity test with using SPSS. Homogenity has the function to check that 2 variables is the same or not. The criteria of testing homogenity is if $F_{table} < F_{count}$ refuses H_0 or $P_{value} < \alpha$ (5% = 0.05)
H_0: σ12 = σ22 there is no difference between experimental and control class. Furthermore, the writer also counts homogenity using another way with calcuating F_{count} and F_{table}. If $F_{count} > F_{table}$, so H_0 push away, but if $F_{count} > F_{table}$ so, h_1 push away.

3.9.3. T-Test

After testing homogenity, researcher will continued with T-test . T-Test to know is there significance or not in implementation of the treatment. On standarization 0.05 with formula hypothesis:

H_0 = there is no effectiveness of teaching descriptive text by using social media instagram to improve student's writing ability at junior high school students. H_1 = there is effectiveness of teaching descriptive text by using social media instagram to improve student's writing ability at junior high school students.

The criteria of the test based on *P* value as below : H_0 Push away , if $P_{(value)} < \sigma$, so there is no effective H_1 Push away , if $P_{(value)} > \sigma$, so there is effective

The researcher also counts T-test using manual way with calculating T_{count} and T_{table} . If $T_{count} > T_{table}$, So H_0 push away , but it if $T_{count} < T_{table}$ so that H_1 push away.

3.9.4. Eta Squared

In this research, the researcher adds Eta Squared to support T-Test .The research used to get more valid data that is able support the result of T-test. To count eta squared, the researcher uses the formula:

$$\text{Eta squared} = \frac{t^2}{t^2 + (N_{1+}N_2-2)}$$

The result of the eta squared can show the data is effective or not. To know the data is effective or not, it can be seen in the result of the table below :

Result	Catagories
0,01	Low effective
0,06	Moderate
0,14	Large effective