

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

This chapter discusses the research methodology applied in this research. It deals with the description of the type of the research design, the place and time of the study, research instrument, the population and sample, research variable, research instrument, criteria of the test, the technique of data analysis, and research procedure.

#### **3.1 Research Design**

Research design in this study is a way to answer the hypothesis whether the animation videos in the you tube are effective to improve student's reading comprehension. The author use quantitative research for the detail and analytic of the data. The experimental design is chosen which is one types of quantitative design (Muijis, 2004:13).

This research used Quantitative experimental design. Quantitative experimental design is the simplest form of research design. In the quantitative experimental design, a class is observed after the treatment is given that presumed to cause change. There are three types of quantitative experimental design. They are descriptive design, experimental design , and ex post facto design. The author used experimental design, to find the data of pre-test and post-test in the research. The purpose of the study is to find out student's reading comprehension by using powtoon animation videos in the YouTube will be improve their ability or not. In this research design, to giving the treatment pre-test do in first to get accurate result before compared with condition after giving the treatment.

The sequence of experimental design by Neuman(2003:96), as follows:

**Tbale 3.1 The design experimental and control**

Class	Pre Test	Treatment	Pos Test
EC	Y1	X	Y2
CC	Y3	-	Y4

Note:

EC = Experimental Class

CC = Control class

X = The treatment by using Video Animation

Y1 =Pretest before the treatment in Experimental Class

Y2 =Posttest after the treatment in Experimental Class

Y3 = Pretest for Control Class

Y4 = Posttest for Control Class

Based on the table above, the author take two class (experimental class and control class). For experimental use the treatment and for control class without treatment but, both of them use pre-test and post-test.

### 3.2 Source of data

The researcher use pre-test and post-test as source of data to obtain the result and calculated using SPSS 24. To get the result, the researcher use SPSS like Normality, Homogeneity, Independen T-test and N gain.

### **3.3 The Population and Sample**

Population is the universe of people which the research could be generalized. According to Vanderstoep and Johnston (2009:26), a sample is the subset of people from the population who will participate in the research. Based on the linking to the concept, the author took VIII B and VIII C grades at SMP N 2 Surabaya, Surabaya to be a target population with 40 Students. In this case, the author used the snowball. The sampling was taken because of some reasons. The first reason is the students have some active and intelligence level in English subject. The second is the recommendation of the English teacher in the school. The class is VIII C with 40 students.

### **3.4 Research Instrument**

The instrument is useful to collect the data in the quantitative research to get the accurate data. The author used some tests to answer the hypothesis of the research. There is the diagnostic test will be held before the pre-test and the post-test. For the pre-test is tested for the class before giving the treatment, while post-test is given after the treatment. The author also measures the validity and reliability of the test in order to avoid the mistake of interpretation in an experiment. It will make sure that the test is proper to be examined.

This research also use learning implementation instrument to do learning in the class to help the researcher. The instruments are observation checklist and filled notes to see the phenomena that exist in the classroom, questionnaire to see the student's response, and the lesson plan (RPP).

#### **A. Pre-test**

The pre-test for the student is carried out to get their score. The student's are given some parts of the test about reading. The test is given in order to know student's ability about reading comprehension.

#### **B. Post-test**

The post-test is given in the some parts. The test is given in order to know the improvement of student's ability in reading comprehension after the researcher gives treatment to the students.

#### **C. Treatment**

Treatment is an action in the experiment that is given to the student's. the treatment is given for the student's to improve their reading comprehension before they get the post-test. The treatment is given in date on Monday, 22 July 2019.

#### D. Questionnaire

Questionnaire is given to the student to see the student's response to the learning that is conducted in the research. The questionnaire is given to the class that gets the treatment.

#### E. Lesson Plan(RPP)

The teacher should teach the learning based on the lesson plan (RPP). The researcher needs to ask the lecturers who expert to validate the lesson plan.

### 3.5 Data collection technique

The research has been conducted since 15 April to 22 July 2019. Before the author did the observation and made plane to set the activities. This research was conducted by doing some activities from 15 April to 22 May 2019. There are some research procedures in this research as follows:

**Table 3.2 Research table schedule**

No	Schedule	Time
1	Meet the headmaster to ask permission	Monday, 15 <sup>th</sup> April 2019
2	Meeting the English teacher	Monday, 22 <sup>th</sup> April 2019
3	Pretest for control class	Monday, 29 <sup>th</sup> April 2019
4	Pretest for Experimental class	Tuesday, 30 <sup>th</sup> April 2019
5	Teaching Reading comprehension Narrative text using Powtoon in Experimental class	Monday, 18 <sup>th</sup> July 2019
6	Review material reading comprehension Narrative text using Powtoon in Experimental class.	Tuesday, 19 <sup>th</sup> July 2019
7	Teaching Reading comprehension Narrative text using English Book in control class	Wednesday, 8 <sup>th</sup> May 2019
8	Review material reading comprehension Narrative text using English book in control class.	Thursday, 9 <sup>th</sup> May 2019
9	Giving posttest for Experimental class	Monday, 22 <sup>th</sup> July 2019
10	Giving posttest for Control class	Tuesday, 14 <sup>th</sup> May 2019
11	Giving Questionnaire for Experimental class	Wednesday, 15 <sup>th</sup> May 2019

First The researcher came to SMPN 2 Surabaya to meet the headmaster and ask permission for doing research in that school. The second the researcher met the English teacher in SMPN 2 Surabaya to talk about this research such as the class, the plan, the schedule, etc. The third The researcher gave the pre-test in VIII B as a Control class. Next The researcher gave the pre-test in VIII C as a Experimental Class. After that teaching gave treatment of reading comprehension in narrative text using animation YouTube Videos to VIII C as a experimental class. Than, teaching review the material reading comprehension using Powtoon video in Experimental class. Next the teacher teach reading comprehension in Narrative text using English Book to VIII B as a Control class. Than review material reading comprehension in Narrative text using English book in control class. After that the researcher gave the post-test to the experimental class in VIII C and also the researcher gave the pre-test to the control class in VIII B. The last, researcher gave the questionnaire to VIII C and VIII B as a experimental and control class. To know how the students' responses after being given the treatment using animation videos from YouTube.

### **3.6 The Technique of Data Analysis**

The author used to collect the data. It is obtained to find out the result of the student's reading comprehending by using animation videos from YouTube which is applied in the class. The data is obtained from VIII B and VIII C of SMP N 2 Surabaya. In this research, the author used T-test to find out the differences between student's score which were taken from the pre-test and the post-test in the class. The author used Microsoft Excel and SPSS 24.

Before the reading test in VIII B and VIII C were given, the author checked the validity and reliability of tryout test that was given to another class in the same level with SPSS to know the pre-test and post-test worth to test in VIII B and VIII C. after the author conducted the pre-test and post-test and got scores from the test, the author converted the data to SPSS 24 such as normality test, indepandece sample t-test and Ngain.

#### **3.6.1 Normality Test**

The author analyzed the data in normality test. The data was collected from the pretest and post test score. Normality test is conducted to know the data is normal or not. The criteria of normality test are if P value higher than  $\alpha(0.05)$  so, H0 is accepted and H1 is rejected. But if P value is smaller than  $\alpha(0.05)$  so, H0 is rejected and H1 is accepted. H0 means that the data is normal distribution. H1 means that the data is not normal distribution.

### 3.6.2 Homogeneity

Homogeneity is the sameness of things. According to Sugiyono (2016) dependent variable must have the same variant in each category of independent variables. If there is more than one independent variable, then there must be homogeneity of variance in the cell formed by categorical independent variables.

### 3.6.3 T-test

t test is one of the statistics used to test the truth or falsehood of hypotheses taken from the same population. According to Helze (2017) t test or commonly known as t-test in one population is used to test whether the population average is equal to it means to find out the average value of the same of two population that the value get the same score or not. T-test divided into three they are one sample t-test, independent sample t-test, and t-paired. The researcher used independent sample t-test further more the average of the two groups with different treatment.

### 3.6.4 Criteria of the test

The quantitative data from the quantitative research should be through tests (tryout, pretest, and posttest) to find out the students' significance different between control and experimental class in reading comprehension by using *YouTube Powtoon*. These should be conducted to check the validity and reliability of the try out test in order to avoid the mistake of interpretation in an experiment. In addition, it is conducted to check the normality test in the pre-test and the post-test before calculating T-test.

### 3.6.5 N gain

N gain uses to know the effectiveness of the strategy that implemented on experiment class which the function is to determine the differences percentages both classes.

**Table 3.3. Criteria of percentage**

Percentage	Category
< 40	Not effective
40 - 55	Less effective
56 – 75	Effective enough
>76	Effective

### 3.6.6 Questionnaire

Questionnaire was used to get the data of the student's responses of using animation videos from you tube in the reading learning. The questionnaire were consisted of some questions about the animation videos from you tube as a media which should be answered by the students. From the questionnaire, it could be known whether the students have a positive response or not.

