

## CHAPTER III

### METHOD OF THE RESEARCH

This chapter discusses method of investigation concerning research design, variables, population and sample, instruments of the research, data collection technique, and data analysis technique.

#### 3.1 Research Design

In this research, the researcher wanted to find out the effectiveness of using animated video to increase the students ability in writing narrative text. So the researcher used method that is called “experimental”.

That experiment was used to find out the effect of treatment. The approach used in this research is quantitative. An experimental research typically involves two classes: an experimental class and control class with receives the different treatment. This research used design pre test-post test. According to some linguists, they are Louis Cohen, Lawrence Manion and Keith Morison and also Arikunto (2004: 125). They have same opinion that the design of the experiment can described as follows:

E	01	X	02
C	03	Y	04

Where:

E : Experimental class

C : Control class

01 : Pre-test for the experimental class

02 : Post-test for the experimental class

- 03 : Pre-test for the control class
- 04 : post-test for the control class
- X : Treatment with animated video
- Y : Treatment without animated video

Based on the design above, subjects are divided into two classes. They are an experimental class (top line) and control class (bottom line). Their language proficiency of the subject was first checked by pre-testing them (01 and 03). The experimental class received a new treatment. It was taught by using animated video, while the control class was taught without animated video. It was taught by lecturing method.

### 3.2 Time and Location of the Research

This following is schedule of the researcher before conducting the research:

Time : April, 23<sup>rd</sup> 2015 – May, 13<sup>rd</sup> 2015

Location : SMPN 1 Tarik Sidoarjo

**Table 3.2**  
**The schedule of researcher**

No	Time	Schedule
1.	Thursday, (on April, 23 <sup>rd</sup> 2015)	asks permission to head master of SMPN 1 Tarik Sidoarjo by giving permission letter.
2.	Friday, (on 24 <sup>th</sup> 2015)	The students do the try out test
1.	Saturday, (on April, 25 <sup>th</sup> 2015)	the researcher gives pre

	(1 <sup>th</sup> meeting)	test to control class (VII-D)
2.	Wednesday, (on April, 29 <sup>th</sup> 2015) (1 <sup>th</sup> meeting)	the researcher gives pre test to experimental class (VII-C)
3.	Tuesday, (on May, 5 <sup>th</sup> 2015) (2 <sup>nd</sup> meeting)	The researcher teaches control class (without treatment/animated video)
4.	Wednesday, (on May, 6 <sup>th</sup> 2015) (2 <sup>nd</sup> meeting)	The researcher teaches experimental class by using treatment/animated video)
5.	Saturday, (on May, 9 <sup>th</sup> 2015) (3 <sup>rd</sup> meeting)	the researcher gives post test to control class
6.	Wednesday, (on May 13 <sup>rd</sup> 2015) (3 <sup>rd</sup> meeting)	the researcher gives post test to experimental class

### 3.3 Population and sample

Population is about all of the research of subject. While, sample is some of chosen population using certain procedure so that can be expected to represent its population. Sampling is the process done to choose and take sample correctly from population so that it can be used as valid representative to the population. The population in this research was the eighth grade students of SMPN 1 Tarik Sidoarjo, that is located on Jl. Kemuning, Tarik in academic year of 2014/2015.

In this research, the researcher took the subject of research randomly. In it, the subjects were regarded that each of them has the equal chance to be chosen as the sample. The sample might be categorized in paired sample because there are experimental and control class that are compared. Two classes were chosen

randomly, in which the each class consist of 34 students. Based on the Arikunto opinion, he said that “when the number of subject is less than one hundred, they all should be taken as the subject of research.” So, this research was population research. They were divided in to two classes, namely control class and experimental class based on their class. Class VII-C was chosen as the experimental class which was taught by animated video, while class VII-D was chosen as the control class which was taught without animated video. The researcher’s consideration on choosing the samples was based on the cognitive structure of the students in each class. At this school, the students were distributed throughly into their classes without regarding their cognitive competence. So, every class had the same right to be the sample of the research. In addition, there was a pre-test to ensure that students’ competence of both class are equal.

Another reason, the researcher chose the school because she was the alumnus in 2008 graduation. So it is very necessary for the researcher to give a contribution or improvement to the school by making a research related to the English at the school.

### **3.4 Variables**

Ary et al., (1985: 30) states that variable has a function as the attribute that is regarded as reflecting or expressing some concepts or constructs. In another word, it can said that variable refers to the object of research that becomes research focus. In experimental research, variables are classified into two:

- a. Independent variable

Ary et al, (1985: 30) gives statement that indepedent variable is a variable that it can be manipulated by the investigators. Beside,

independent variables must, by definition, be manipulable at levels of interest to the experimenter (Winer et al., 1991: 3). The independent variable of this research refers to the animated video.

b. Dependent variable

In this research, the dependent variable used is the students' writing of narrative text. According to Ary et al, (1985 : 30), he defines that dependent variable is a variable affected or expected to be effected by the independent variable.

### **3.5 Research Instruments**

Research instrument is a tool or device that can make easy for the researcher to get data (Arikunto, 2009: 134). The kinds of research instruments are test, questioner, interview, rating and documentation. For this research, the researcher used tests as the instruments. Those tests were try out test, pre-test, students' writing task and post-test.

Test is used to collect data in form of students's writing narrative text score test. For educational research, test is valuable measuring instrument (Ary et al, 1985: 189). There are three tests which is used in this research, they are try out test, pre-test and post-test.

#### **3.5.1 Try out test**

Try out test was given in the beginning of the study before the pre test is conducted. It was used to measure the validity and realibility of the test. The try out test was given in another class, it did not belong to the both experimental and control group. In try out test, the students were asked to make a narrative text about Jack and the Beanstalk.

From this try out test, the researcher examined the students' writing task. The score of this test were measured by using correlation product moment to check wheter the scores were reliable or not. If the scores made by the scores were not too far different, it meant that both scorers were reliable. So, in scoring pre-test and post-test, it was just needed one scorer. After that, the scores were check wheter they had fulfilled the standart score or not. If they had fulfilled, it meant that the allocation of time was enough.

### **3.5.2 Pre-test**

Pre-test was administered in the beginning of the research after try out test had been done. It was used to measure the students' writing ability before the research conducted. In the pre-test, students were asked to make a narrative text about Jack and the Beanstalk and the allocation of time in pre-test is 60 minutes.

### **3.5.3 Students' Writing Task**

Students' writing tasks was administered while the treatment. The researcher just made one treatment in this research, so just there is one students' writing tasks in this research. For this treatment, the students in control and experimental class were given material about narrative text and the example of it. But the difference of those classes are the researcher gave a helping by giving video related to the task to the experimental class. While in control class, the students are taught as usually, without video as a media.

### **3.5.4 Post-test**

Post-test was administered in the end of the research. It was used to measure the students' writing ability after the research conducted. Post test was done after the students get different treatments class VIII- C is taught by using

animation video and class VIII-D is taught without animation video). In post-test, students were asked to make a narrative text about the same story about Jack and the Beanstalk. From the score of this test, the researcher was intended to find out the effectiveness of using animation video as the medium in writing narrative text. The result of the scoring then was compared with pre-test. In this case, the researcher knoww how far is the the effectiveness of using animation video as the medium in writing narrative text. Those tests were used to measure the difference of achievement between students who were taught by using animated video and the students who were taught without animated video. information about it can be seen in appendix.

Another important thing to measure the students achievement in writing narrative text is based on the assesment criteria of students writing skill. The assessment criteria are taken from SL Composition Profile (Jacob: 1981). It can be seen in appendix.

### **3.6 Data Collection Techniques**

The first data collection was started with pre-test to examine the validity and reliability of the instruments. The data collection was started by pre-test and ended by post-test.

- a. Firstly, the researcher gave try out to the outside class. It was used to analyze validity and reliability of the test. It was class VII-E of the students of SMPN 1 Tarik.
- b. After giving try out and knowing the result of the try out was valid and reliable, then pre-test was conducted to the students. It was given to the two classes. The researcher did not give the general explanation of the

research at first, but the researcher gave the test directly, then, the test is done. The test is intended to know the students' ability in making narrative text Jack and the Beanstalk before treatment. The role of the researcher is the observer and investigator during the research.

- c. The second phase was the implementation of treatment given to the students. The treatment aim was to know their progress of writing ability during treatment.
- d. In the treatment for the students in experimental class, the researcher gave an explanation about narrative text from the definition till generic structures and the language features. Then, the researcher played the video "Jack and the Beanstalk" without showing the subtitle and showed the sets of pictures again and asks the students' questions related to the generic structures of narrative text, then, they wrote narrative text based on the following outline or generic structures and submit it.
- e. For the control class, it was given material of narrative text as usually without video as a medium to teach. The researcher used lecturing method of her teaching.
- f. After the treatment had already been given, the whole students were given post test. The title of writing test is "Jack and the Beanstalk", the same title as the pre-test. Post test was done by the two classes, both in experimental and control class. Then, the researcher made a score for both students' pre-test and post-test in control and experimental class. The result of the scoring then is compared with pre-test. In this case, the reseacher knew



how far was the the effectiveness of using animation video to increase students' ability in writing narrative text.

### **3.7 Research Procedure**

In collecting data, the researcher done some following steps:

#### **1. Preliminary Visit**

Firstly, the researcher visited the school and met the administration officer to get information whether the school possibly become the setting of research or not by describing the researcher's intention and ask for information about setting and participants. After getting information from the administraton officer that the school could received the researcher to conduct the research. Then, the researcher visited the headmaster of the school. The researcher got the information about setting and participant from him. In second time, the researcher did the second visit to meet the headmaster of the school by giving the permission letter. After receiving research permission from the headmaster of the school, the researcher met the English teacher and asked for the data of students and negotiated what the class should become the participants that were the control and experimental groups.

#### **2. Give Try out Test**

The researcher gave try out test to the outside class to know wheter the test is suitable or not based on criteria realibility of the test.

#### **3. Give Pre-test**

In this session, the researcher gave the pre-test of writing narrative text to the experimental and control class. This test was used to ensure that both two

class were the same in score. In addition, the results or score of the test were used to determine the students' teams.

#### 4. Give the Treatment

In this part, the experimental and control class was taught by the researcher. But the researcher gave treatment for experimental class. While the control class was not. It was taught usually without treatment. The researcher taught the control class by using speech method and slide presentation as media in teaching. Both classes was taught in same material, but was different in teaching media that was by using animated video and without animated video. During the treatment, the observation was also conducted to observer.

#### 5. Give Post-test

After conducting the treatment, the researcher gave post test to the two classes. It used to differentiate the students ability in writing narrative text by using animated video and without using animated video.

### **3.8 Data Analysis Technique**

The purpose of data analysis is to know the effectiveness of using animation video to increase students' ability in writing narrative text in the second grade students of SMP Negeri 1 Tarik in academic year of 2014/2015.

To analyze the data from the test, researcher conducts some steps:

#### **3.8.1 Validity**

An instrument will be valid if it be able to measure the data from variable that is researched exactly (Arikunto, 2006: 168). The validity that used in this research was content validity. The test can be called has content validity when the test is appropriate with the material or content that is given. So, the test is

arranged based on curriculum that used by the school, it is curriculum of 2013. The material of the test should be appropriate with material that the English teacher given. So, to conduct a testing of content validity, the researcher held a consultation with the expert judgements. They were Gusti Nur Hafifah, S.Pd, M.Pd as supervisor, Linda Mayasari, S.Pd, M.Pd as a writing lecturer and H. Nurdiono, M.Pd as English teacher of SMPN 1 Tarik Sidoarjo.

No	Name	Validity of the test		Date of validation
		Yes	No	
1.	Gusti Nur Hafifah, M.Pd	V	-	April, 12 <sup>th</sup> 2015
2.	Linda Mayasari, M.Pd	V	-	April, 12 <sup>th</sup> 2015
3.	H. Nurdiono, M.Pd	V	-	April, 20 <sup>th</sup> 2015

### 3.8.2 Reliability of the test

Realibility has meaning consistent. It refers to the consistency of test scores. Besides having high validity, a good test should have high reliability too. To measure the reliability of the test, the researcher had given a test, namely try out test. It was done before conducting pre-test and post-test. The test was given to the fifteen students. They were asked to make narrative text about Jack and the Beanstalk. The researcher allocated 60 minutes in conducting try out test. According to Triton in Sujianto (2009: 97), the value of Cronbach's alpha can be seen as follows:

Scale	Level of Reliability
0.00 – 0.20	Less reliable
0.21 – 0.40	Rather reliable

0.41 – 0.60	Quite Reliable
0.61 – 0.80	Reliable
0.81 – 1.00	Very reliable

### 3.8.3 Normality test

Normality test is used to know the normality of the data that is going to be analyzed whether both classes have normal distribution or not. In this research, the researcher used SPSS 16.00 with used formula of One Sample Kolmogorov-Smirnov to measure the normality of the test. In calculation by using that formula, when the significant score is more than 0,05 ( $\alpha$ : 5%) so it means that the data of this research is distributed normally. (Nurgiyantoro, 2004: 118).

### 3.8.4 Homogeneity Test

Homogeneity test is used to know whether experimental and control class, that are taken from population have same variant or not. In this case, the homogeneity will be conducted to the sample test that was used to collect the data. To measure the homogeneity test, the researcher took the pre-test score from both experimental and control class. The procedure of the this test used to test variance of homogeneity is by determining  $F_{count}$ . When  $F_{count}$  is lower than  $F_{table}$ , in means that the data is homogeneous.

### 3.8.5 T-Test Calculation

To analyzed the significant difference of the students' ability in writing narrative text before and after using animated video, the researcher used paired sample T-Test through SPSS 16.00 to analyze the data. This following is some steps to analyze the data:

- a. Formulating the hypotheses. The hypotheses are in the form of  $H_0$  and  $H_1$ .
- b. Determining the value of  $t_{count}$ . It can be seen on the output of SPSS analysis.
- c. Determining the value of  $t_{table}$ . It can be seen from statistical table in significance level  $0.05 : 2 = 0.025$  (two tailed test) with degree of freedom (df) is  $n-1$ .
- d. Determining the significance value based on the output of SPSS 16.00 analysis. In this case, the significance value should be lower than than 5% significance level ( $<0.05$ )
- e. Determining hypothesis testing. Simply, the hypotheses testing are follows:
  - a. If  $-t_{count} < -t_{table}$  or  $t_{count} > t_{table}$  and  $Sig < 0.05$ , so  $H_0$  is rejected.
  - b. If  $-t_{table} \leq t_{count} \leq t_{table}$  and  $Sig > 0.05$  so  $H_0$  is accepted.
- f. Making conclusion.

If  $H_0$  is rejected, it means that there is significant difference of the students' ability in writing narrative text before and after being taught by using animated video. So, if  $H_0$  is accepted means that there is no significant difference of the students' ability in writing narrative text before and after being taught by using animated video.