

CHAPTER III

RESEARCH METHOD

This chapter presents the review of some theories about research design. It consists of research design, population and sample, research variable, research instrument, validity and reliability testing, data collection method and data analysis.

A. Research Design

In this study, the researcher used quantitative research. Quantitative research is a type of research that is explaining phenomena by collecting numerical data that are analyzed using mathematically based methods. Because of the design of the study was quantitative, so the researcher used experimental research study.

In this study, the researcher used pre experimental design (one group pre-test post-test design). This study classified as pre-experimental research design because it has little or no control of extraneous variable. Since there was no control of extraneous variable so, the researcher used one group pre-test and post-test as the research design. This design involves only one group as its subject and it involves three steps: pretest, treatments, and post test. Pretest was administered before the treatment. It was to know the students' listening skill before they have been taught by using animation video. Post-test was administered after the treatment. Meanwhile, during the treatment, the researcher applied animation video as the media for teaching listening. The design of this research can be seen as follow:

Table 3.1 Design of one group pre-test post-test

Pre-test	Independent variable	Post-test
Y1	X	Y2

Note: X : listening treatment

Y1 : students' achievement on listening before taught by animation video

Y2 : students' achievement on listening after taught by using animation video

The procedures of pre-experimental research that use one group pre-test and post-test design in this study are described as follows:

1. Administering pre-test (Y1) with a purpose of measuring students' listening skill before applying treatment.
2. Applying experimental treatment teaching listening skill by using animation video (X).
3. Administering post-test (Y2) with a purpose of measuring students' skill after applying treatment.

To see the influence of this technique to the students listening ability, the researcher used the comparative technique. Compared students post test score before and after the treatment.

In conducting this research, the researcher asked an English teacher of SMP Al-Kamal Kunir to help her. The teacher helps the researcher in planning, action, observation, and reflection. Moreover, it is also possible for the researcher to ask much suggestion from him/her in conducting of the research.

B. Population, Sample, and Sampling of the Research

1. Population

According to Burke (2000: 158) population is the set of all elements. It is the large group to which a researcher wants to generalize his or her sample result. The population of this research is the eighth grade students of SMP Al-Kamal, Kunir in the academic year of 2015/ 2016. They are grouped into 4 classes (VII A – VII D) where each class consists of 25 students. The total number of population is 100 students.

2. Sample

Getting sample is very important in scientific research because the total number of population is usually too many because of the large number of population. The researcher took samples as the representative of the population. According to Creswell (2012: 142), sample is a subgroup of the target population that the researcher plans to study for the purpose of making generalization about the target population. Moreover in the same case, Burke (2002: 158) also says that sample that it is a set of elements taken from a larger population according to certain rules. So, it can be concluded that sample is a small portion of a population assigned according to certain rules. In this research, the researcher took one class of seventh grade of SMP Al-Kamal. That is class VII-D. It consists of 21 students, 8 male students and 13 female students.

3. Sampling

Technique to take sample is called sampling. Ary et al (2010:167) stated that sampling is the small group that is observed. Sampling is also as a way the researcher select number of individuals as a sample which presents the population. In this study the writer used purposive sampling. This school was chosen purposively because to apply the experimental research, the samples must not be too “good” and too “bad” in their English achievement, especially in listening skill. It’s intended to reduce the extraneous variable may appears since the design is pre-experimental research without control group, while in SMP Al-Kamal Kunir the classes divided into two groups; the best class and general class. The best classes can be called smart class where places in class a and the general class places in class b until class d. VII-B until VII-D are relatively better in English achievement but the difficulty of reading comprehension often appears in VII-D rather than in other general class. So, the writer decided VII- D as recommendation by the teacher who handle English lesson in SMP Al-Kamal and hopes VII-D is the most representative ones.

C. Research variable

Brown (2004) states “Variable in the simplest term that is something that may vary or differ”. Brown also elaborates that there are two types of variable, the independent variable and the dependent variable. To support it, I added the definition of variables by Best (1995:137), “variables are the conditions or characteristics that the experimenter manipulates, controls or observes.” In this study, there were two variables included.

1. Dependent variable

The dependent variable (Y) was the condition or characteristics that appear, disappear or change as the experimenter introduced, remove or changes independent variable. In this study, the dependent variable is the ability of students listening skill.

2. Independent variable

The independent variable (X) was the conditions or characteristics that the experimenter manipulates or controls in his or her attempt to ascertain to their relationship to observed phenomena. According to Best (1995:137), "In educational research an independent variable may be a particular teaching method, a type of teaching material, or an attribute such as sex or level of intelligence." Then, in this study, the independent variable was the use of animation video in teaching listening

D. Data collecting method and Research instrument

1. Data collecting method

Data collection method is a systematical and standard procedure used to collect the data. Indeed, the data collection method in this research was done in three steps:

a. Pre – test

The pre-test was conducted before the treatment on May 23rd 2016. There were 20 students joined to the pre-test. The test consist of two section; section 1 and 2. The first section has 10 Multiple Choices it consists of four options and students must

choose the correct answer. The second section has 10 fill in the blank. Thus, total of the question are 20 numbers.

b. Treatment

After administering the pre-test, the researcher gave the treatment to the students. The researcher applied the treatment of English animation video on monday23rd May 2014 untiltuesday31st 2016. The materials given were like and dislike and procedure text. Before the video was played, the researcher gave explanation about dislike and descriptive text. Then, the teacher invited the students to watch and pay attention on the video. After the video was played, the teacher asked the students to write down the vocabulary they got from the video then write down on the blackboard and then discussed them with the researcher.

c. Post test

The post-test was conducted after the treatment on June 6th 2016. There were 20 students joined to the pre-test. The roles of pre-test and post-test were: first of all I explained to the students that they would have test, then I ask them to listen the recording twice. The test consist of two section; section 1 and 2. The first section has 10 Multiple Choices it consists of four options and students must choose the correct answer. The second section has 10 fill in the blank. Thus, total of the question are 20 numbers.

2. Research instrument

According to Sugiyono (2013) research instrument is a tool or instrument used to measure nature and social phenomena observed. In this research, the researcher collected data through administering test. Test is an instrument or procedure designed to measure the student's ability. In this study, the researcher administered two kinds of test, pre test and post test. Pre test is given to measure their ability before giving the treatment; meanwhile post test is given after giving the treatment. The numbers of the test given were 20 questions containing: 10 questions for multiple choice, 10 fill in the blank. The results of those tests were compared to know whether there's significant difference before and after the students given the treatment.

3. Data and data sources

a. Data

According to Arikunto (2010:172) data is written facts or notes gotten by the researcher that will be organized in research activity. Data can be in the form of fact or numbers. In a research, the role of data is very important since it is used to answer the problems.

Data is information about something or the result of research that use necessity. It can be opinion or fact. In this research the data was students' listening comprehension score before and after the treatment given. This score is very crucial information that can show the effectiveness of using animation video.

b. Data Source

While data source is data can be gotten from the subject. Data source can be classified into two types. There are primary data and secondary data. Primary data is source of data where the researcher can directly get the data, while secondary data is data that collected by the researcher indirectly it means the data got from book, journal, magazine etc. The main data of this research was the students' scores in pretest and posttest and they were taken directly when the research was being conducted. Furthermore, the data of this research belonged to primary data. Arikunto (2010:172) classifies data source into three; person, place and paper. Regarding to this statement, data sources in this research can be classified as follows:

- a. Person: Seventh grade of SMP Al- kamal Kunir in which the treatment was given.
- b. Place: 7-D classroom where the tests were administered
- c. Paper: students' listening comprehension tests

E. Validity and Reliability Testing

1. Validity

Brown (2000 : 387) states that validity is the degree to which a test actually measures what it is intended to measure. This test was used to check whether the instrument is valid or not if the instrument was applied in a subject of the research. To know the validity of instrument used to gather the data, the researcher used content validity and face validity. The explanation of content validity and face validity and construct validity as follows;

a. Content validity

The test was said to have content validity if its content constitutes a representative sample of the language skills, structure etc, being tested. Beside that the content of instrument has to relevant with the purpose of the test. The researcher needs a specification of the skills or structure being tested to ensure whether the instrument have content validity or not. The instrument of this research had a content validity because the researcher used design from syllabus of students in SMP Al-kamal in academic year 2015- 2016.

Table 3.2content validity

No	Test	Material	Standart Competence	Test Item
1	Pre-test	Transactional conversation (greeting, asking and giving information, like and dislike	Students are able respond the expression ofTransactional conversation (greeting, asking and giving information, like and dislike	10
		Descriptive text	Students are able to complete the sentences	10
2	Post-test	Transactional conversation (greeting, asking and	Students are able respond the expression ofTransactional	10

		giving information, like and dislike	conversation (greeting, asking and giving information, like and dislike	
		Descriptive text	Students are able to complete the sentences	10

b. Face validity

Face validity relates to whether a test appears to be a good measure or not. In this case, many researchers send their test instrument to a group of leading experts in the field, asking them if they think that it is a good test, such as asking participants whether they thought that a test was well constructed and useful. In this research, the objective of the test was testing listening and the kind of test was multiple choice and fill in the blank. In this test, the researcher asked the students to listen to recorded conversation and monolog and they should listened based on the recorded conversation and monolog. From this, it can be seen that the test has represented listening skill. Thus, it can be said the test has had face validity.

2. Reliability

Reliability is the degree to which one may expect to find the same result if a measurement is repeated. It means that a test has high reliability if it give the same result, when it is tried out many time on

sample. The reliability of a measuring instrument is the degree of consistency with which it measures whatever it is measuring (Aryet al, 2010: 236). It can be said that a reliable test is consistent and dependable To know the reliability of instruments used in this research, the researcher had tried them out before conducting them into the pretest and posttest. The tests were administered to the ten students. They consisted of 20 questions in the form of partial multiple choice and fill in the blank. The researcher allocated 30 minutes in conducting the try out. After getting the data, the researcher analyzed them byusing SPSS 16.0. Below was the result of the analysis of reliability:

Table 3.3 Result Reliability pre-test post-test

Reliability Statistics

Cronbach's Alpha	N of Items
.883	2

The table above showed that in number of items 2, the reliability of Cronbach's Alpha was 0,883, According to Triton in Sujianto (2009: 97), the value of Cronbach's alpha can be interpreted as follows:

Table 3.4 Cronbach's Alpha Interpretation Based on Triton

Cronbach's alpha	Interpretation
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

Based on the result of computation from 20 items` granule, the degree of reliability is 0.883. It's mean that 20 items are very reliable.

F. Method of Data Analysis

Method of data analysis is the way data analyzed by the researcher. In managing and analyzing the data collected, the researcher will use quantitative data analysis so the researcher will analyze the data by using statistical technique. The analysis is used to find the significant difference of the students' listening comprehension before and after the use of animation video. In this study the researcher used paired sample T-Test through SPSS 16.00 to analyze the data.

Indeed, the method in further analysis of the data is as follow:

1. Formulating the hypotheses. The hypotheses are in the form of Null hypothesis (Ho) and Alternative Hypothesis (Ha).

2. Determining the value of t-count. It can be seen on the output of SPSS analysis.
3. Determining the value of t-table. The value of t-table can be seen from statistical table in significance level $0.05: 2 = 0.025$ (two tailed test) with degree of freedom (df) is $n-1$.
4. Determining the significance value based on the output of SPSS 16.00 analysis. In this case, the value of significance should be lower than 5% significance level (< 0.05).
5. Determining hypothesis testing. Simply, the hypotheses testing are:
 - a. If $-t\text{-count} < -t\text{-table}$ or $t\text{-count} > t\text{-table}$ and $\text{Sig} < 0.05$, so H_0 is rejected.
 - b. If $-t\text{-table} \leq t\text{-count} \leq t\text{-table}$ and $\text{Sig} > 0.05$ so H_0 is accepted.
6. . Making conclusion. If H_0 is rejected, it means that there is significant difference of the students' reading comprehension ability before and after being taught by using animation video. So, if H_0 is accepted means that there is no significant difference of the students' listening before and after being taught by using animation video.

