

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 YouTube are effective to improve students' reading comprehension. The researcher use Quantitative research for the detail and analytic of the data. The experimental design is chosen which is one types of Quantitative design (Muijs, 2004:13).

This research used pre-experimental design. Pre-experimental design is the simplest form of research design. In the pre-experimental design, a group is observed after the treatment is given that presumed to cause change. There are three types of Pre-experimental design. They are the one shot case study, the one group pre-test and post-test design, and the intec group comparison. The researcher used the one group pre-test and post-test design for this research. It is because this research aims to find out whether students' reading comprehension using animation videos from YouTube will improve or not. In this design, there is a pretest before giving the treatment to get more accurate result then the pre-test can be compared with the condition after giving the treatment.

Based on the situation, it was suitable for using Pre-experimental design with the pre and post test group design in this research. The sequence of pre-experimental design by Neuman (2003:96), as follows :

Table 3. 1 Pre-experimental Design

The One Group Pre and Post-test Design

Pre-test	Treatment	Post-test
T1	X	T2

Based on the table above, the researcher took one group (the experimental group). The group was given the pre-test before giving the treatment. Then, the group got the treatment. After several meetings, the group was given the post-test. It was given to compares the pre-test and the post test to know the effectiveness of the treatment.

3.2 The Place and Time of the study

The research was held at tenth grade students of SMK PGRI 13 Surabaya. The subject of this research is X APK 1 that consist 24 students. It was located at Jalan Sidosermo 3, Wonocolo, Surabaya. The researcher was conducted the research from 12 April to 11 May 2018.

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 current research. Based on the linking to the concept, the researcher took tenth grades of Office Administration (APK) at SMK PGRI 13 Surabaya to be a target population with 240 students and they are divided into 4 majors. The majors are 10 TKJ with three classes, 10 DKV with one class, 10 APK with three classes, and 10 PM with one class.

In this case, the researcher used the purposive sampling. The sampling was taken because of some reasons. The first reason is the students have some

intelligence level in English subject. The second is the recommendation of the English teacher in the school. The class is X APK 1 with 24 students.

3.4 Research variable

The experimental research is the categorized of the quantitative design which has any variables. There are some variables that the researcher can be used and separated into:

3.4.1 Independent variable

Independent variable is an attribute which influences dependent variable (Creswell, 2012:116). Based on the theory, the researcher sets animation videos from YouTube that will influence the students' reading comprehension.

3.4.2 Dependent variable

Dependent variable is an attribute which is influenced by the independent variable (Creswell, 2012:115). Based on the theory, the researcher placed students' reading comprehension as a dependent variable.

3.5 Research Instrument

The instrument is useful to collect the data in the quantitative research to get the accurate data. The researcher 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, a pre-test is tested for the group before giving the treatment and post-test is given after the treatment. The researcher 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 uses learning implementation instrument to do learning in the class to help the researcher. The instruments are observation checklist and filled notes to see the phenomenas that exist in the classroom, questionnaire to see the students' response, and the lesson plan (RPP).

1. Diagnostic Test

Diagnostic Test will be held before pre-test and post-test examined. Diagnostic test is general test for the students to differentiate students' abilities in English. Diagnostic test aims to categorize the students to the up-middle-low group.

2. Pre-test

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

3. Post-test

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

4. Treatment

Treatment is an action in the experiment that is given to the students. The treatment is given for the students to improve their reading comprehension before they get the post-test. The treatment is given in two meetings. The date of the treatment is on 4 May and 7 May 2018.

5. Observation checklist

Observation checklist is one of the instruments conducted in the research with field notes as the additional part. It is conducted in order to see the phenomena that exist in the classroom during the research.

6. Questionnaire

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

7. 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. There are two validators of lesson plan in this research. The researcher chose Vega Hesmatatya, MPd as a lecturer who conducted the validity of the lesson plan. The researcher also gave the lesson plan to Mrs. Dias as an English teacher

in SMK PGRI 13 Surabaya who teaches in X APK 1 before started the learning to ask the approval and the validity. Table Validity of Lesson Plan: (see in the appendix 4 for more clearly the validity of Lesson Plan)

Table 3. 2 Validity of Lesson Plan

No	Name of Lecturer	Validity of the Test		Date
		Yes	No	
1	Vega Hesmatatya, MPd	v		26 April 2018
2	Ani Dwi Widiastuti, S.Pd	v		30 April 2018

3.6 Criteria of the test

The quantitative data from the quantitative research should be measure in validity and reliability. 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 the T-test.

3.6.1 Validity

Validity in the research has a purpose to know how far the accuracy of tests to be tested. Therefore, validity becomes one of the important things that should be considered in evaluating and developing measuring instruments in the research. Before the test is given to the subject, the researcher needs to know the validity. According to Hughes (2003: 26), the test should be measured accurately to be stated that the test is valid. According to Alderson (2003: 173), the validity of the content of the test is tested by people who are expert or experienced in the relevant field and then the test is tested in order to get the result. The result of the test is tested by using SPSS to know the validity of the content of the test.

3.6.2 Reliability

Reliability is the consistency of what is measured. According to Creswell (2012:159), when the researcher conducts the research, the score that is gotten should be stable and consistent. Reliability has a purpose to know the extent of the

results of the measurement have reliability, stability, and consistency that can be reliable. The test should be reliable as measuring instruments. Reliability can be measured using SPSS 17.

3.6.3 Basic competence according to the syllabus of SMK PGRI 13 Surabaya

The researcher used basic competence according to the syllabus of SMK PGRI 13 Surabaya to conduct the research in the reading skill about narrative text.

3.7 The Technique of Data Analysis

The researcher used test to collect the data. It is obtained to find out the result of the students' reading comprehension by using the animation videos from YouTube which is applied in the class. The data is obtained from X APK 1 of SMK PGRI 13 Surabaya. In this research, the researcher used T-test to find out the differences between students' score which were taken from the pre-test and the post-test in the class. The researcher used SPSS 17 for Windows software.

Before the reading tests in X APK 1 were given, the researcher 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 X APK 1. After the researcher conducted the pre-test and post-test and got the scores from the tests, the researcher converted the data to SPSS 17 such as normality test and paired sample t-test. Besides, the data of the class condition was gotten by using the observation checklist. For the students' responses, the data was collected by using the questionnaire.

3.7.1 Normality Test

The researcher analyzed the data in Normality test. The data was collected from the pretest and post test scores. Normality test is conducted to know the data is normal or not. The criteria of normality test are if P value is higher than α (0.05) so H_0 is accepted and H_1 is rejected but if P value is smaller

than α (0.05) so H_0 is rejected and H_1 is accepted. H_0 means that the data is normal distribution. H_1 means that the data is not normal distribution.

3.7.2 Paired Sample T-test

The Paired Sample T-Test compares two samples from the same individual, object or related units. The two samples typically represent two different times, for example pretest and posttest. The Paired Sample T-Test is a parametric test. The researcher used Paired Sample T-Test to find out the significant difference between pretest and posttest class that had been conducted. The subject of both of this research was the same subject. The pre-test score was gained before the treatment. The post-test score was gained after the treatment.

3.7.3 Observation checklist

Observation checklist was used to get the data of the class condition during the treatment. The data was gotten from the class observation during the reading learning using animation video from YouTube. From the observation checklist, it could be known about the phenomena of the student in the classroom.

3.7.4 Questionnaire

Questionnaire was used to get the data of the students' responses of using animation videos from YouTube in the reading learning. The Questionnaire was consisted of some questions about the animation videos from YouTube 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.

3.8 Research Procedure

This research was conducted by doing some activities from 12 April to 11 May 2018. There are some research procedures in this research as follows:

1. The researcher came to SMK PGRI 13 Surabaya to meet the headmaster and ask permission for doing research in that school.
2. The researcher met the English teacher in SMK PGRI 13 Surabaya to talk about this research such as the class, the plan, the schedule, etc.

3. The researcher conducted tryout test to another class in the same level.
4. The researcher gave the pre-test to the experimental class (X APK 1) with the material of reading comprehension in narrative text.
5. The teacher gave the first treatment of reading comprehension in narrative text using animation videos from YouTube in X APK 1.
6. The teacher gave the second treatment of reading comprehension in narrative text using animation videos from YouTube in X APK 1.
7. The researcher gave the post-test to the experimental class (X APK 1) with the material of reading comprehension in narrative text.
8. The last, the researcher gave the questionnaires to X APK 1 students to know how the students' responses after being given the treatment using animation videos from YouTube.

For the details of the activities can be seen in the following table.

Table 3. 3 Research Procedure

No	Schedule	The Date
1	Meeting the headmaster and asking her permission	12 April 2018
2	Meeting the English teacher	12 April 2018
3	Tryout test	20 April 2018
4	Pretest for experimental class	27 April 2018
5	Treatment in the 1 st meeting	4 May 2018
6	Treatment in the 2 nd meeting	7 May 2018
7	Posttest for experimental group	11 May 2018
8	Giving questionnaire	11 May 2018