CHAPTER III

RESEARCH METHODOLOGY

This chapter presents the method that used in this research. It consists of research design, location and time of the research, population and sample of the research, instrument of the research, data collection technique, and data analysis technique. All of them presented in the following information:

3.1   Research Design

According to Gay (2000) experimental is the best way to establish cause-and-effect relationship among variables. Experimental research is the only type of research that can test hypotheses to establish cause-and-effect relationship. It means that, experimental research is one type that is widely used in science or developments in research on the causes and effects that occur in life and in the process of development and learning.

Cresswell (2009) defines that experimental research is the traditional approach to conduct quantitative research. The most powerful research methodologies that research can use. It means that, experimental research is research being done to approach the processing of data between the experimental class and control class.

This research is a kind of experimental research. It is conducted to find out the effect of using smartphone video camera towards students' speaking

skill at the eleventh grade of senior high school 1 west Rengat. Score are acquires through a number of pre-test and post-test which are demonstrated in classroom. In addition, the research involves two variables, the smartphone video camera as independent variable and speaking skill as dependent variable.

Tabel 3.1

Research Design

Group	Pre-test	Treatment	Post-test
E	O1	X1-4	O2
K	O1	Y	O2

Where :

E   : Experimental

K   : Control group

O1   : Pre-test

X   : Treatment using smartphone video camera

Y   : Treatment smartphone video camera

O2   : Post-test

After the researcher gave pre-test the writer begin do treatment, the writer try to see the development of students' skill in speaking. The last is

administering post-test, the researcher looking the difference result between pre-test and post-test of the experimental group. The result has analyzed to know significant effect on students' speaking skill of eleventh grade at senior high school 1 west Rengat.

3.2   Location and Time of the Research

The research conducted at the eleventh grade students at senior high school 1 west Rengat. It is located on Gerbang Sari street number 25, Rengat, Riau Province. This research is conducted on November 2017 until finish.

3.3   Population and Sample of the Research

3.3.1   Population

The population of this research is the eleventh grade students of senior high school 1 west Rengat. They consists six classes. There are about 186 students divided into six classes. They assume to have the same level of proficiency and the same background.

Table 3.2

The Distribution of Population of Eleventh Grade Students of SeniorHigh

School 1 West Rengat.

CLASS	NUMBER OF STUDENTS
XI 1 (science)	28
XI 2 (science)	26
XI 3 (science)	28
XI 1 (social)	35
XI 2 (social)	33
XI 3 (social)	36
TOTAL	186

The study focus on XI 2 of science and XI 3 of science that consist of 26 and 28 students. The reason for choosing this class because based on my interview April 2017, the students more interest and energetic to speak than other class. Beside that they are also cooperate students and all of students have smartphone video camera. So, hopefully the study in this class was running well.

3.3.2 Sample

Notoadmojo (2003) defines that sample are come objects taken from the whole subject under study and are considered to represent the entire population.

Considering that this population of the research is bigger, thus the writer take the sample of the population of the research. In this research, the writer used cluster random sampling technique.

According to Gay and Airasian (2012), random sampling is the process of selecting a sample in such a way that all individuals in the defined population have an equal and independent chance of being selected for the sample. Cluster random sampling technique is most useful when the populations are very large or spread out over a wide geographic area.

In this research, the writer takes two of six classes as the samples. Class XI 2 of science is as an experimental class and class XI 3 of science is as a control class. The class XI 2 of science consists of 26 students and the class XI 3 of science consists of 28 students, so that the total sample of this research is 54 students.

Table 3.3

Sample of the Research Students of Senior High School 1 West Rengat

No	Class	Sample
1	XI 2 of science	Experimental Class
2	XI 3 of science	Control Class

3.4   Instrument of the Research

In the research used two instruments which are used pre-test and post-test to collect the data. Test is used in order to know the different achievement between experimental classes after the treatment is given. Speaking test conducted by speaking test by asking the students to make a monologue to talk about their activities in the future. Then, they have to make video recording by using smartphone video camera to talk about their planning in the future.

Table 3.4

Blueprint of Test

No	Topic	Indicator
1	My Dream	Fluency, Pronunciation,
2	My Next Year Holiday	Accuracy, Vocabulary and
3	My Planning After Graduated From Senior High School	Content

3.4.1 Variable X

Independent variable is the students' score at the pre-test. Variable X using smartphone video camera.

3.4.2 Variable Y

Dependent variable is the students' score at the post-test after the application of using smartphone video camera. Variable Y is students' speaking skill.

3.5   Research procedure

Using smartphone video camera can be applied by teacher in teaching learning process of English subject especially in teaching speaking to encourage the students speaking skill and achieve the goal of learning, because smartphone video camera is the activity to record or know the students comprehension about the material. The procedure of this research divided into three phrases, they are:

a. Pre-test

The pre-test carried out to determine the students' speaking skill with their score.Give the brainstorming to the students' warming up. The researcher told to the students that they will work together along this research conducted.

b. Treatment

The treatment conducted for the experimental class. This used smartphone video camera and it will be applied for about six meetings.

The researcher carry out treatment by using smartphone video camera. The treatment used on the experimental group. The length of time to by using this strategy

is about five meetings which focus on the topic of speaking. The first meeting, the teacher and students discuss about the text that they want to learn. The second to fourth meeting the researcher be applied the treatment by using smartphone video camera in teaching speaking skill in experimental group. The treatment activities that done by research in experimental group are:

a. The researcher delivered material to the students.

b. The researcher gave the students a task which their recording from their smartphone video's feature based on the material that has been delivered.

c. The students to know collect the task when they are teaching.

d. Few tasks discussed in the classroom to review about the best things and weakness of the tasks.

e. The purpose of this research is know the students' speaking skill teach by using smartphone video camera and to know the difference of speaking skill between students whoteach by smartphone video camera and those who is taught by using conventional strategy.

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Table 3.5

Research Material

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No	Text material	Meeting
1.	Pre-test	1
2.	My Dream	2
3.	My Next Year Holiday	3
4.	My Planning After Graduated From Senior High School	4
5.	Post-test	5

c. Post-test

    After giving the treatment, the post-test administered and analyzed as final data for this research.

3.6   Data Collection Technique

    The data of study was sources of students' speaking skill that can be obtain by giving a pre-test that conducted before the instruction is given and post-test is given after teaching and learning process within fifth meeting in the classroom. The way of collection data are follows:

1.   Pre-Test

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The Pre-test was given before teaching and learning process in the classroom. Pre-test was conducted to know the early ability of the second year students at SMPN 4 Siak Hulu. The pre-test used smartphone video camera where they recorded their own video based on tittle that chosen randomly in front of the class by chairman.

1.   Treatment

The treatment had given for three meeting in experimental class. During the treatment, using smartphone video camera was implemented based on the plan that stated before.

Pre – Activity

The teacher should do some activities such as:

1. Greet the whole class

2. Check the students' attendance list

3. Give motivation

4. Then ask some questions to the students in order to make a good

relationship among them or to create a good atmosphere in the class

While Teaching Activity

1. The teacher explains about how to using smartphone video camera

2. The teacher ask the chairman to random what the title of the text that want

to record

3. The teacher give the instruction about the times for the record and how to speak based on the scoring rubric in speaking skill

4. The teacher asks to students to answer to their own work

5. The teacher remind the time to the students

Post-Activity

1. The teacher ask the the students to submit the task and discuss the best one of their recorded

2. The teacher concludes the lesson and closes the meeting

3.   Post-test

After teaching and learning processes are finished at all, the pre-test also will be using smartphone video camera where they will record their own video based on tittle that chosen randomly in front of the class by chairman.

3.7   Data Analysis Technique

The dataanalyzed by Statistical Package for Social Science (SPSS) program version 24 for windows was used. The data obtained from before and after treatment test. The steps are describes as follows.

1. The score of students' speaking skill pre-test before and after the treatment in the experimental class and control class analyze to find out the mean score.

2. The mean score of each strategy compared by using homogeny sample t-test to know the differences of the usage of each strategy before and after the treatment gave. The significant level (α) which is used is 0.05.

3. The table below was to categorized the students based on their score in speaking skill:

Table 3.6 Score Categorized

Score	Categorized
90-100	Excellent
81-89	Very Good
71-80	Good
60-70	Fair
<59	Less

(Sudijno: 2008)