CHAPTER III

RESEARCH METHOD

In this chapter, the researcher provides brief explanation about research method: research design, population and sample, variable, place and time, data and data source, data collecting method and instruments, procedure in teaching speaking applying picture series, technique of data analysis.

A. Research Design

Research design is the researchers' plan how to proceed to understanding of some groups and phenomenon in its natural setting. According to Burgin (2005:84) research design is all process that be needed in conducting the research.its means that be the process includes planning and doing the research. The design begins with a general statement of a research problem or topic. In the begining, the researcher need to think about some topic in which he or she has an interest and wants to know more about it.

Pre-experimental research design was applied in this study. The design was quantitative design. The researcher chose it because this design had a purpose to find out the differences between before and after being taught by using picture series. Experimental research is research to know the possibility influence caused and effect by applying one to one or more experimental group. This study used pre-experimental design with one group is experimental group, pre-test, post-test

and treatment, because this study used the pre-experimental group as the students'
achievement in speaking after being taught by using picture series.

The experimental group firstly was given pre-test without series picture
and then was taught speaking by using picture series. In the teaching speaking and
learning process, picture series were used as media of teaching visual. After the
treatments given to the experimental group, post-test of speaking was given.

Pre-test and post-test pre-experimental research design

Sample	Pre-test	Treatment	Post-test
Experimental group	Sc 1	X1,X2	Sc2

Sc 1   : students speaking ability of experimental group in pre-test

X   : Treatment teaching speaking by using series picture

Sc 2   : Students speaking ability of experimental group in post-test

B. Population and Sample

1. Population

A population can be defined as all member of any well defined class of
people, event or object. Population is object that has some qualities and
characteristic that is chosen to be cleared and to be concluded by the researcher
(Louis: 2005).

The target population in the present study was all the first grade students
of SMAN 1 Kampak-Trenggalek. The total number of first grade students at

SMAN 1 Kampak are 220 students distributed into 7 classes which consist of more or less 33 students of each class.

2. Sample

In this research the researcher used sampling technique is purposive sampling technique. Purposive sampling technique is technique to took sample with the motive. The researcher used this method because the class that will be had research is choosen by the school. At the time, the school will be has final examination and just this class which have time. For this research the researcher took 16% of population as the sample. The researcher took one class of the first year students, that is XF. This is the regular class that consists of 33 students.

C. Variable

According Ary (2002), a variable is an attribute that is regarded as reflecting or expressing some concept or construct. Variable is devided into two, they are independent variable and dependent variable.

1. Independent variable

Independent variable is the conditions or characteristics that the experimenter manipulates in his or her attempt to answer their relationship to observed phenomena. The independent variable in this research is the apllication of picture series in teaching speaking.

2. Dependent variable

Dependent variable is the conditions or characteristic that appear, disappear or change the experimenter introduce, removes, or changes independent

variable. The dependent variable here is the students achievement in speaking. It is known from the result of the treatment, if there is any effect on the student's achievement in speaking.

D. Place and Time

In this study, the research took place in SMAN 1 Kampak located in Kampak-Trenggalek and the research was conducted on March 28th up to March 30th 2013. In this time, the researcher introduced in front of class and taught the first grade students for meetings in this senior high school.

E. Data and Data source

1. Data

Data is a note of fact or information that will be processed in the research activity. Arikunto (2006) data is a whole fact and number that can be usedas material for arranging information is used as need. The data are very significant in the research. The research can not get information without the data. The data in this research were in the students' score of the first grade at SMAN 1 Kampak-Trenggalek in the form of speaking test in pre-test and post-test.

After the researcher got permission from headmaster, the researcher did procedure in collecting data.

a. The researcher gave pre-test for experimental group using picture series, and give duration three minutes for each students.

b.   The researcher gave treatment by using picture series as a media and the material in speaking.

c.   The researcher gave post-test which has same duration in pre-test.

2.   Data source

Data source is subject in which the data are gotten. In this cases, the researcher did effort to get data from the subjec. The subject is 33 students of X-F class at SMAN 1 Kampak.

F.   Data Collecting Method and the Instrument

Data collecting method is the method that is used by the researcher to collect data. In collection of data the researcher uses instrument. Instrument is the tool that use to get the data. In this research the instrument used was only test.

The test is in the form of telling story which is to measure the skill and ability of an individual. There are two kinds of test:

a)   Pre-test

Pre-test refers to a measure or test given to the subject prior to the experimental treatment. Pre-test is a test given to the 33 students of experimental group to measure their ability before treatment process. This test was given to know the basic competence for 33 students and to know their earlier knowledge before they get the treatment. Pre-test was given to the experimental group by asking the students to tell their good experiences in their won words. The score of pre-test then were got. Time location of the test was 66 minutes. The pre-test was conducted on Thursday, March 28th 2013.

b) Post-test

Post-test is a measure on some attribute or characteristic that is assesed for participant in an experiment after treatment. Pos-test is a measure taken after the experimental treatment has been applied (Wiersama:1991). Post test was also given for 33 students of experimental group. Post-test was used to measure students ability after treatment process, to know their knowledge after they got treatment. It was done to know the final score and to know the students difference competence before and after they get treatment.

Before having post-test, the students got treatment. Treatment here means that the researcher applied picture series as visual media in teaching speaking. In doing the post-test, the researcher gave the material about playing football with picture series.

The post-test was in the form of telling a story about playing football in picture series. Time allocation was 66 minutes. This test was used to measure the students'ability after they were given treatment. The post-test was held on Saturday, March 30th 2013. To know whether the test is good or not, there are two qualities are reliability and validity:

1. Content validity is a kind of validity which depends on careful analysis of the language being tested and of particular test. A test is said to have content validity if its content constitutes a representative sample of language skill, structures, etc being tested. The test of this study had content validity because the items were taken from source for the first grade students of SMAN 1 Kampak that consisted of 33 students.

2. Construct validity is concept or theory which basis of use skill of language. Brown (2000) that a construct in any theory, hypothesis or model that attempts to explain observed phenomena in our universe or perception. Language testing used in this research was appropriate with the theory of testing speaking. In this research, testing speaking used telling story.

3. Reliability is a necessary characteristic of any good test for it to be valid at all and a test must be reliable as measuring instrument. A reliable test is consistent and dependable. The researcher gives test for 33 students to know the reliability of test.

Table 3.1 Analytic oral language scoring rubric

The description	Excellent 4	Acceptable 3	Below average 2	Unacceptable 1
Content	Easy to get the ideas from the connector used, the speaker gives alternative options to be understood, and the message is completely understandable	Not many difficulties to get the ideas, the message is most of the time understandable	Difficulties to get the ideas, the message needs to be guessed from other sources but not the actual production	Many problems observed that make the message be understandable

Grammar	No errors of past tense, good control of structure	Some errors of past tense, fair control of structure	Soome errors of past tense and control of structure	Many errors in past tense and poor control of structure
Vocabulary	The students can choice very effective of word	The students adequate choice of word but some misuse of vocabulary	The students sometimes confused of use words	The students still confused of use words
Pronunciation	The students always pronoun well the vocabulary in the story telling	The students just little mistake to pronoun well the vocabulary in the story telling	The students sometimes can't pronoun well the vocabulary in the story telling	The students can't pronoun well vocabulary in the story telling
Fluency	Speech on all professional and general topics as effortless and smooth as a native speaker	Speech is effortless, but perceptibly non- native in speech and evenness	Speech is occasionally hesitant, sentences may be left uncompleted	Speech is very slow and uneven except for short or routine sentences

There are limitations of total score here to categories students' achievement. The maximum total score of speaking was 20 and the minimum total score was 11. Only students who got score more than 10 could pass the test. Passing score was score that have to be reached by students in order to pass the test. The score can be categorized in the table below :

Table 3.2 Standard performance

Score	Criteria
1- 5	Unacceptable
6- 10	Below average
11- 15	Acceptable
16- 20	Excellent

G. Procedure in Teaching Speaking by Applying Picture Series

After getting the scores on pretest, the researcher gave treatment by using picture series in speaking class. The treatment was started on March 28th until 29th 2013. In this study, the teachers was the researcher herself. The format of the procedure in giving the treatment as followed:

1. Teaching and learning process were held for about 45 minutes for each meeting.

2. The activity consisted of 5 minutes introduction, 35 minutes for main activity, and 5 minutes for closing.

3. In the main activity there were some activities as follow:

   a. The teacher started the teaching and learning process.

   b. The teacher presented the material about story telling.

c. The teacher gave clear explanation and instruction of what should they do to make and presented story telling (purpose and language features)

d. The teacher teach about story telling used picture series as media. The teacher teach about how to tell a story with series that continuous movement.

e. Then, the students were asked to practice making their story telling and presented it in front of the class one by one

f. In story telling, teacher gave students time for about 3- 5 minutes to have practice

In process of treatment, the students felt enjoy and fun, they were cooperated and motivated.

H. Technique of Data Analysis

The technique of quantitative data analysis. Quantitative data is a technique to analyze and count the data. Its means that the technique of quantitative data analysis is the process of data shaped by number. In this study, the writer used the quantitative data to know the students'ability in speaking after they are taught by using picture series as a a media in teaching speaking. The researcher conducted test to the students before and after they were taught by using picture series. The test result were compared, then the researcher took the percentage of students' score by using frequency.

To analysis the data, the writer also used the procedure as follow :

1. Interpretation

Based on the conversation table in table 3.2 above, the writer considered interval or categories.

2. Tabulating

    Tabulating is classifying the score categories in to table using numbers. It was hoped the data could be simple in writting and understanding.

3. Analyzing

    In the last step, the writer used T-test by using statistical program to ensure the effectiveness and to get stronger conclusion. The T-test was taken from the result which were conducted before and after the students taught by using picture series as media in teaching speaking process.

    The formulation of T-test as follow (Sudjiono:2000) :

$$t = \frac{MD}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}}$$

Notes:

t   : t- score

MD   : average difference

$\sum D^2$: Different scores squared, the summed

$(\sum D)^2$: Different scores summed then squared

N   : number of samples