CHAPTER III
RESEARCH METHOD

3.1 Research Method

Generally there are two kinds of research, they are quantitative research and qualitative research . In this research the reseacher used quantitative research. So in this case, independent variable and dependent variable assumed to have close Influence to each other.

In this research, there are two variables, they are Skipping technique and reading comprehension. According to Arikunto (2010:159) variable is defined as something that varies from one case to another. The dependent variable is variable which one observes and measures to determine the effect of the independent variable. The major variable is the variable which is selected manipulated and measured by the researcher. The researcher would like to find out whether there is significant influence of using Skipping technique toward reading comprehension. Moreover, the researcher used quasi experiment design because the class involved in this research does not take randomly. Sugiyono, (2009:77), states that quasi-experimental studies take on many form. The researcher used pretest and posttest design to find out whether or not there is different result between experiment and control class by applying nonequivalent control group design as it is presented as follows:

Experiment	**O_1**	**X**	**O_2**
Control	**O_3**		**O_4**

Picture 2
The Design of Nonequivalent control group Design

Description:

O_1 : Pretest of the experiment group

O_2 : Posttest of the experiment group

X : Treatment which is given to the experiment group

O_3 : Pretest of the control group

O_4 : Posttest of the control group

Nazir (2008:124) said that dependent variable (Y) is variable caused by variable independent variable (X). It means that a dependent variable (Y) is a variable which influenced by independent variable (X). This study has two variables, they are: independent variable (X) and dependent variable (Y). Independent variable is a variable that is presumed to influence another variable. Dependent variable is a category that is influenced by another category or that is the consequent. The independent variable is Skipping technique (X) while the dependent variable is reading comprehension (Y)

3.2 Population, Sample, and Sampling Technique.

3.2.1 Population

Population is all the subjects of research. Arikunto (2010:173). It means that population is all the subjects which have the same characteristic. Population in this study is all of the students of SMKN 1 Kotabumi Lampung in the academic year 2017/2018.

It can be concluded that population is a number of groups interest to the researcher, a number of groups which the writer would like to make the results of the study to be reported. In this case, the population of this research was the eleventh grade students of SMKN 1 Kotabumi Lampung academic year 2017/2018. As presented in the following table.

TABLE 2
THE POPULATION OF THE RESEARCH

No	Class	Students
1	Adaministrasi Perkantoran 1	39
2	Adaministrasi Perkantoran 2	38
3	Rekasaya Perangkat Lunak	40
4	Akutansi 1	40
5	Akutansi 2	40
6	Akutansi 3	39
7	Perbankan Syariah	41
8	Perbankan Konvensional	40
9	Tata Niaga	41
10	Teknik Komputer Jaringan	41
TOTAL		399

Source : Staff of administration and Teacher of SMK N 1 Kotabumi Lampung

The total member of the population is 399 students spread on four classes.

3.2.2 Sample

Sammple is very important in scientific research because sample is the representative of the population. Sample is a part of the number and characteristic possessed by population (Sugiyono, 2012:62). The sample in this research come from the Elevants grade office administration students of SMKN 1 Kotabumi Lampung. The researcher took a sample of seventy-seven students, thirty-nine students of class XI AP I as an experimental class and thirty-eight students of class XI AP II as a control class

3.2.3 Sampling Technique

The sampling technique that was used in this research was purposive sampling, purposive sampling is sampling technique with certain considerations. Sudjana (2005:168) says that the purposive sampling also know as sampling considerations, occurs when sampling is done based on individual consideration or consideration of research. In this case, there are 77 students that involved in this research as sample. The researcher choose class XI AP I and XI AP II to becomes sample is research because the sample was choosen in consideration that both of them were taught by the same teacher and their learning achievment is almost the same.

TABLE 3
THE SAMPLE OF THE RESEARCH

Class	Total of students	Note
XI AP 1	39	Experimental Class
XI AP II	38	Control Class
Total	**77**	

Source: Staff of administration and Teacher of SMKN 1 Kotabumi Lampung

3.3 Research Instrument

The research instrument in this research is a test. The test is of reading test. This test is used for collecting the data. In reading test, multiple choice items are used consist of 40 items. But, the researcher only take 20 items for used as reseach instrument.

3.3.1 Instrument of Reading Comprehension

a. Conceptual Definition of Reading Comprehension

Reading comprehension is the process of constructing meaning to comprehend the meaning of the text consisting of the process recognizing main idea, stated detail and of the text.

b. Operational Definition of Reading Comprehension

Operational definition of reading comprehension is the score that the students obtained from a reading test consisting of multiple choice items. The

instrument is in the form of multiple choice tests, which consists of 40 items. In determining the scoring system, the reseacher use aspect literal comprehension with level recognizing stated main ideas, recognizing stated details and recognizing sequence. If the students answered correctly, she/he would be given the score 1. Next, if the students answered incorrectly, she/he would be given the score 0. Then, correct answer divided total of question multiplied by 100. So, the highest score is 100.

c. Specification of Reading Comprehension test

Based on the conceptual and operational definition above, the reseacher had relevant indicators. For more detail, it can be seen as follow table :

TABLE 4
SPECIFICATION OF READING COMPREHENSION INSTRUMENT

Variable	Aspect	Indicator	Total of question	Number of question
Reading Comprehension	Literal Compehension	a. Recognizing main ideas	11	1, 2, 5, 9, 11, 20,27, 33, 35, 36, 38,
		b. Recognizing stated details	8	7, 8, 24, 25, 28, 30, 32, 39
		c. Guessing the meaning of unfimiliar words	16	3, 4, 6, 10, 12, 13 15, 17, 18, 22, 26, 29, 31, 34, 37, 40
		d. Recognizing sequence	5	14, 16, 19, 21, 23,
Total				**40**
Score, the correct answer : total of question x 100 = 100				

3.3.2 Validity and Reliability Test

All the tests categories as a good test if both of the test have include two requirements stated by Arikunto (2010:211) the test can be said valid if the instrument items can be used to measure what should be measured. The validity data is the data which is not different form d the date which were report by writer and the factual data which happen in the object of the research.

Reliability is a consistency from a measurement instrument or how far the measurement instrument can measure the same subject in the different time but the result is relative same.

a. Validity of Reading Comprehension Instrument

Validity is a measurement which shows the grades of number of an instrument. In this research, the reseacher uses content validity to know the validity of the test. Arikunto (2010:211) says "An instrument can be said as valid if the measurement of the instrument is appropriate to the object. According to Creswell (2008: 172) content validity is the extent to which the questions in the instrument and the scores from these questions that a researcher could ask about the content or skills. The researcher confirms to supervisor and co-supervisor if the guided questions in the instrument are representative for the area of interest.

The measure the validity of the reading instrument, the researcher uses formula point bisserial correlation to know correlation between two variables, one variable is continue variable and discrite variable. formula by Arikunto (2010:326) as follows:

$$r_{pbis} = \frac{M_p - M_t}{S_t}\sqrt{\frac{p}{q}}$$ (Arikunto,2010:283)

Where:

r_{pbis} = Coefficient be serial point correlation.

M_p = Mean, value from all subjects which answer correctly.

M_t = Mean, total value (average value from all the subject)

S_t = Devastation Standard

P = Total Subject answered correctly that we look for the correlation.

q = 1-P

Validity criteria are the result of calculation r_{pbis} (r_{calc}) consulted with the price of r_{table} the product moment if $r_{observed} > r_{table}$ the items are valid questions, Sugiyono (2009:134) states that items that have a positive correlation with the criterion (total score), and high correlation indicates that the item has high validity as well, usually considered the minimum requirements to qualify the validity if $r_{observed} \geq 0{,}3$. Furthermore, to find out about the level of validity items, according to Arikunto (2010:276), the value of table interpretation $r_{observed}$ interpreted as follows

b. Reliability of Reading Comprehension Instrument

The reliability to the extent to which the test is consistent in its score, and gives us an indication of how accurate the test score. To test realibility of the instrument, the researcher uses sperman brown formula “split-half technique”.

The researcher accumulates the score of odd items (X) as the first split and the score of even items (Y) as the second split. To measure the coefficient of the reability between the score of the first and the second split (r_{xy}).

The formula to determine the correlation based on Arikunto (2010: 170) is as follows:

$$rxy = \frac{N(\sum xy) - (\sum x)(\sum y)}{\sqrt{\{N\sum x^2 - (\sum x)^2\}\{N\sum y^2 - (\sum y)^2\}}}$$

Description:

N = the number of the students in the sample

r_{xy} = the coefficient reliability between first half and second half

x = total number of the odd number items

y = total number of the event number items

x^2 = the number of squares X

y^2 = the number of squares Y

$\sum x$ = total score of first half items

$\sum y$ = total score of second half items.

After getting the index correlation, the to determine reliability of the test the formulation that is used based on Arikunto, (2010:180) is as follows:

$$r_{11}=\frac{2xr_{\frac{11}{22}}}{(1+r_{\frac{11}{22}})}$$

Explanation :y

r_{11} = the reliability of the instrument

$r_{\frac{11}{22}}$ = rxy index correlation between two parts of instrument.

After the score of reliability (r_{11}) is getting, this score then consult to r product moment able (r_{table}) with the significant standart is 5%. If r_{11} ($r_{observed}$) > r_{table}, it means that the test is reliable or consistent.

3.4 Data Collecting Technique

To get the data in this research based on the suitable variable, the researcher used test technique in reading test . Reading test is used to know comprehension of the students in answer question by reading before.

The collecting data of the research are reading test, in the form multiple choice test, to collect the data from the sample. The test consist of items that have been found valid and reliable, and it was given in pretest and posttest.

3.4.1 Test

In this reasearh, there are pretest and post test which was given to the experiment class and control class. Pretest was measure the students' reading comprehension before given treatment. Then, posttest was measured the students' reading comprehension after given treatment.

3.4.2 Pretest

Pretest was conducted in both class X AP 1 and X AP II. Pretest has done before the treatment Skipping technique is given to the experiment class. The use of pretest is to measure students' reading comprehension. After the pretest was done, the experiment class was taught by using Skipping technique, and in contrast, the control group was taught using conventional method

3.4.3 Posttest

After pretest and treatment was done, it was continued by giving posttest. Posttest will be given to the both of experiment class (X AP I) and control class (X AP II) to measure student' achievement in reading comprehension after treatment is given. From posttest result, the researcher will knew the students' reading comprehension by using Skipping technique.

3.5 Data Analysis

After the data is completely gotten, data is started to be analyzed. Firstly, the data is tested by two prerequisite test, normaliy test and homogeneity test. After the prerequisite tests was fulfilled, the analysis continued by conducting hypotheses test. The formula was used is independent t-test.

3.5.1 Normality Test

Normality test used to know whether the data of sample which was used in the research has normal distribution or not. According to Sudjana, (2005:466) normality test is conducted to know the data from the sample are normal or not. In testing the data, researcher used Lilliefor' s formula Lilliefor' s which is the steps as follow:

a. Determine the raw number by using the formula

$$Z_i = \frac{x_i - \bar{x}}{S}$$

Description:

Z_i = Number of raw
x_i = The values obtained
$\bar{x}$ = Average
S = Standard deviation

b. Opportunity determines each raw numbers with the formula:

$$F(Z_i) = P(Z \leq Z_i)$$

c. Determine the proportion by using the formula

$$S(Z_i) = \frac{\text{Numbers } z_1, z_2, \ldots\ldots z_n \text{ that} \leq Z_i}{n}$$

d. Calculating absolute price using the formula: $\left| F(Z_i) - S(Z_i) \right|$

e. Determining the largest absolute value, which is called L_0, and then compare L_0 with L_{table}.

f. Normal criteria if $L_0 < L_{table}$ so, the group has normal distribution

3.5.2 Homogeneity Test

Before going to the next step to analyze the data, it is done homogeneity test. It is because the reseacher must know whether the samples of the research are really homogeneous or not. Furthemore to measure the homogeneity is used the similarity of two variants test and the formula of homogeneity test. According to Irianto (2004:276), the formula can be used to calculate homogeneity test is by using Harley test. The formula is as follow :

$$F_{observed} = \frac{The\ highest\ variance}{The\ lowest\ varian}$$

The step are :

a. Looking the value of the highest and lowest varian

b. Compare the value of $F_{observed}$ with F_{table} use the formula :

- *df* numerator = n-1 (for the biggest variance)

- *df* denominator = n-1 (for the lowest variance)

- significant level (α) = 0.05 then look at F_{table} with criteria :

If $F_{observed} > F_{table}$,it means the data is not homogeny.

If $F_{observed} \leq F_{table}$, it means the data is homogeny.

The hypotheses should be proven are if $F_{observed}$ is greater than F_{table} the data is not homogeneous; while if $F_{ovserved}$ is smaller than table F_{table} the data is homogeneous.

3.6 Hypothesis Test

The hypothesis test used is independent group-test. According to Setiyadi (2006:168), t-test used to determine the value that we analyze comes from the same population or no. In addition, the data that will be analyzed is the gain score of pre test and post test both experimental and control class. The formula that researcher used is independent group t-test. According to Sugiyono (2009:197), the formula ia as follows:

$$t = \frac{\bar{\bar{x}}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_1^2}{n_2}}}$$

Notes ;

t = t-test coefficient

$\bar{x}_1$= average of experiment class

$\bar{x}_2$= average of control class

n_1= total number of students in experiment class

n_2= total number of students in control class

s_1^2 = variant of the experiment class

s_2^2 = variant of the control class

The hypothesis that will be proved is:

H_o = there is no significant influence of Skipping technique in teaching reading toward students' reading comprehension at the eleventh grade of SMKN 1 Kotabumi Lampung academic years 2017/2018.

H_a = there is significant influence of Skipping technique in teaching reading toward students' reading comprehension at the eleventh grade of SMKN 1 Kotabumi Lampung academic year 2017/2018.

With the criteria as follows:

If :$t_{observed} \geq t_{table,}$,so H_o is rejected and H_a is accepted