CHAPTER III

RESEARCH METODOLOGY

This chapter discusses the research methodology applied in this study. It presents the description of the research design, the population and sample of the study, variables of the study, technique data collecting and technique of data analysis procedure.

3.1 Research Design

Based on the research questions above, this research applies the correlation between students' mastery of past tense and their achievement writing narrative text to the twelfth grade of SMAN 1 Kamal. This study is used to be quantitative research. Generally, quantitative research deals with numerical collection that taken from sample and designed from some populations. Therefore, in this research used the test method as the procedure. According to Arikunto (2002:136) stated that the easy way to obtain data and create better outlays is applied research instrument. Thus, test is applied to calculate the students' ability. To obtain the real data of the student's mastery of past tense and their achievement writing narrative text, the researcher utilized two kinds of text namely grammar and writing test. Both of them are in written test.

Moreover, the purpose of this research is search the relationship between achievement past tense and writing narrative text. Therefore, the possibilities of this study are used two or more variables or correlational design. The reason using correlational design is to prove how the mastery of past tense affects the writing narrative text.

To obtain better outlays, the researcher uses two kinds of test between grammar and writing test. In grammar test, the researcher used multiple choices to make easy for scoring. The multiple choices include incomplete statements which asked to the student chose the best answer. The number of multiple choices is 50 questions and 50 minutes for students. Meanwhile, the writing test will focus one narrative text. The tenses is proposed to be applied is past tense in writing narrative text. The writing narrative text will be conducted by students 15 sentences in 40 minutes.

3.2 The Population and Sample

3.2.1 The Population

In this study, the population is twelfth class of SMAN 1 Kamal in the academic year 2014/2015. There are 278 students from 9 classes. Here the list of classes

1. XII IPA 1 : 32   7. XII IPS 1 : 30

2. XII IPA 2 : 30   8. XII IPS 2 : 32

3. XII IPA 3 : 30   9. XII IPS 3 : 31

4. XII IPA 4 : 32

5. XII IPA 5 : 30

6. XII IPA 6 : 29

The first procedure in choosing sample is to indicate the population. The population is depends on the researcher where the researcher would like to research.

3.2.2 Sample

In this case, there are nine classes in twelefth classes of SMAN 1 Kamal. The number of each class is mentioned above. All twelefth students are 276. This

means that the researcher will take one class or in other words 30 students. It is caused because the researcher apply purposive sampling technique.

According to Donald (1985:145) stated that purposive sampling technique is taken from some population which is judged to be representative population. Thus, it is clear that the researcher choses one of population in twelefth class.

3.3 Variables of study

This research is aimed to seek the relathionsip between two or more variables or the other words one variable will interference other variables. Therefore, in this research there are two variables namely dependent variables and independent variables. This means that whether independent variable interferences the dependent variables.

In this study, the independent variable is the students' mastery of past tense whreas the dependent variable is students' writing skills. The independent variable can be written X and the dependent variable can be written Y.

Therefore, the researcher will search the relationship between the students' mastery of past tense and their ability in writting narrative text. The possibilities indicate that the students' mastery of past tense affect the achievement of writting narrative text. To achieve in creating mastery of past tense and writting narative text, the teachers should ask to the students about their habitual action in learning english subject whether they interest in writing or not, because this factor will affect students' motivation to practice writing. So that, the outlays of this research will indicate the relationship two variables that affect each other.

3.4 Technique of Data Collecting

In this study, the researcher uses random sampling technique to indicate the relationship between two variables namely students' mastery of past tense and their ability writing narrative text. Thus, the researcher choose the purposive sampling technique because it is the best way in this research.

Morever, the researcher use and apply two methods in collecting data. The first methode is collecting the documentation and then the second method is test. In this test here, the researcher apply two test instrument namely multiple choice and essay test. Multiple choice is used to test studedents' mastery of past tense whereas essay test is used to test students' writing narrative test.

3.5 Instrument and Technique of Data Analysis

3.5.1 Instrument

In seeking the correlation between students' mastery of past tense and their acievement writting narrative text, the researcher used the product moment correlation to check the validity of the test. Validity is used to measure the instrument that was taken from the test to get real acievement.

$$\text{Rxy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - \sum X)^2\} \{N \sum Y^2 - \sum Y)^2\}}}$$

where,

rxy   : the correlation of the score of each item

N   : the number of the students

ΣX : the sum of the total score in each item

ΣY : the sum of the total score each student

$\Sigma X2$: the sum of the square of the total score each item

$\Sigma Y2$: the sum of the square of the total score each student

Σ XY : The sum of multiple of score from each student with the total score in each item

Thus, to check is there any correlation between students' mastery of past tense and their achievement writing narrative text, the researcher used formula which suggested by (Best,1981:255)

Table 3.6

Criteria of Validity Analysis

Coefecients	Relationship
0,80 - 1,00	High to very high
0,60 - 0,80	Substantial
0,40 – 0,60	Moderate
0,20 – 0,40	Low
0,00 – 0,20	Negligible

Good test is applied when the tast has been checked using reliability instrument. It is caused because it is one of instrument to verify whether the test is bad or not. This reliability indicates that the instrument can be applied and used in collecting data. According to Heaton (1988:162) stated that reliability test is the specific items test in measuring the instrument. This means that reliability measure the balancing of test score. To search the reliability of test, the researcher used this formula:

$$r_{11} = \frac{N}{N-1}\left(1 - \frac{m(N-m)}{Nx^2}\right)$$

Where,

R11   : Reliability

N   : The number of items in the test

m   : The mean score on the test

x^2 : Standard deviation of the test score

This formula above is aplied to check the students' score in testing past tense. The researcher has to measure the students' mastery of past tense using multiple choice. But, before the test is distributed to the students, the test has been tried out to other class. This mean that to verify when it is used in collecting data. And then, the result of the try out will be given score, so that after analysing each item, the expectation is to find the validity and reability of the test. All of parts of past tense test, the researcher applied the instrument, such as in the table below.

Table 3.7

The Table of Past Tense Test

No	Past Tense Type	Items
1	Simple past tense regular verbs	14 items
2	Simple past tense irregular verbs	11 items
3	Past continuous	10 items
4	Past perfect	10 items
5	Past perfect continuous	5 items
		50 items

The questions of past tense test are listed below

1. Simple past tense regular   : 1,2,16,21,26,31,38,39,40,41,42,45,48,49

2. Simple past tense irregular   : 5,7,8,12,30,32,35,36,37,44,50

3. Past continuous   : 3,11,13,15,18,19,22,27,33,47

4. Past perfect   : 4,10,14,20,23,25,29,34,43,46

5. Past perfect continuous   : 6,9,17,24,28

After the test is tried out to the students, the researcher should analyse about the items difficulty. The statement above means that to check the test whether it is easy or difficult. Therefore, to measure and classify the difficult of each items, the researcher used the following formula:

$$\rho = \frac{B}{JS}$$

Where,

P : index of difficulty

B : the number of students who answer the item correctly

JS : the total number of students.

(Arikunto, 2002:212)

The criterias of the difficult test are arranged in this table below

Table 3.8

Inteval	Criteria
$1,00 < P$	Too easy
$0,70 < P \leq 1,00$	Easy
$0,30 < P \leq 0,70$	Medium
$0,00 < P \leq 0,30$	Difficult
$P < 0,00$	Too difficult

Thus, when the classification of score is apllied to the students in testing students' mastery of past tense, the researcher has to measure the writing score. In writing score, the researcher decided to analyse that score using analytical scoring that consists of five catagories. In this research, the researcher uses writing assessment that suggested by Jacobs. There are content, organization, vocabularies, grammar and mechanics.

Table 3.9

Writing Assessment

No	Criteria to be assessed	Good performance	Score
1	Content	Developing the ideas	30
2	Text organization	Use the correct text	20

		organization and with elaborated idea	
3	Vocabularies	Purposefully chosen vocabulary	20
4	Grammar	Use simple sentences, compound sentences and complex sentences correctly	25
5	Mechanics	Effective use of capitalization, punctuation, and spelling	5
		Total score	100

After that, in classifying and developing score, the researcher continues the measurement of students achivement (Harris,1969:134)

Table 3.10

List of Students Achievement

Students' Achievement	
Test Score	Class performence
91-100	Excellent
81-90	Very good
71-80	Good
61-70	Fair
51-60	Poor
Less than 50	Very poor

3.5.2 Technique of data analysis

In finding the correlation between the students' mastery of past tense and their achievement writing narrative text, the product-moment correlation is applied by the researcher. The formula is:

$$Rxy = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - \sum X)^2\} \{N \sum Y^2 - \sum Y)^2\}}}$$

where,

rxy   : the correlation of the score of each item

N   : the number of the students

ΣX : the sum of score in grammar test

ΣY : the sum of score writing test

$\Sigma X2$: the sum of the square in grammar test

$\Sigma Y2$: the sum of the square writing test

ΣXY : The sum of multiple of score from grammar test and writing test

in each number

Table 3.11

Interpretation of Number Correlation (r Score)

Coefecients	Relationship
0,80 - 1,00	High to very high
0,60 - 0,80	Substantial
0,40 – 0,60	Moderate
0,20 – 0,40	Low
0,00 – 0,20	Negligible