

CHAPTER III

METHOD OF RESEARCH

A. Research Design

This is a correlational research. Correlational research indicates an association between two or more variable (Creswell, 2008, p.358). Furthermore, in conducting the research, the researcher uses quantitative method. Quantitative research is essentially collecting numerical data to explain a particular phenomenon (Muijis, 2004, p.2). In the research, the researcher uses grammar converting text test and grammar completion test to measure their abilities about simple past tense of English and Arabic. After that, Pearson Product Moment formula is used to correlate two variables and find out the significance correlation between students' English and Arabic simple past tense. The independent variable of this research is the students' Arabic fi'il madhi (variable X) and the students' and English simple past tense was the dependent variable (variable Y).

B. Research Setting

This research was conducted at UPB UIN Antasari Banjarmasin located in Jl. A. Yani Km. 4,5 Banjarmasin, South Kalimantan. Then, the research was conducted during June until July in 2018).

C. Population and Sample

1. Population

Population is all the number of a particular group, (Fraenkel and Wallen, 2006:107). It is the group of interest to the researcher. In this research, the population of this research is the second semester students of four groups B of English and Arabic of UPB UIN Antasari Banjarmasin. The number of population is 220 students.

It can be seen in the following table:

Table 3. 1 Population of Research

No	Classes	Total
1	Group 1 B UPB of English	22
2	Group 1 B UPB of Arabic	22
3	Group 2 B UPB of English	22
4	Group 2 B UPB of Arabic	22
5	Group 3 B UPB of English	22
6	Group 3 B UPB of Arabic	22
7	Group 4 B UPB of English	22
8	Group 4 B UPB of Arabic	22
9	Group 5 B UPB of English	22
10	Group 5 B UPB of Arabic	22

Total	220
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2. Sample

Sample is a subject of individual from a given population. Arikunto (2006: 51). Sample is a part of population which has same characteristic. There are two ways in selecting a sample. First, if the population was less 100, all population can be sampled. Second, if the population was over 100, the researcher can take 10% - 15% or 20% - 25% from all population as a sample. In this research , research took 20% from second semester student of UPB in UIN Antasari Banjarmasin academic year of 2017/2018 as a sample. So, the researcher took 40 students as the sample of this research which took 20% of every class.

Table 3. 2 Sample of Research

No	Classes	Total
1	Group 1 B UPB of English	4
2	Group 1 B UPB of Arabic	4
3	Group 2 B UPB of English	4
4	Group 2 B UPB of Arabic	4
5	Group 3 B UPB of English	4
6	Group 3 B UPB of Arabic	4

7	Group 4 B UPB of English	4
8	Group 4 B UPB of Arabic	4
9	Group 5 B UPB of English	4
10	Group 5 B UPB of Arabic	4
	Total	40

In order to know who the students in each class that was taken as the sample, the researcher use sample random sampling technique. It because all of the students in every class can be the sample in this research. Hence, the researcher just researched 4 people of all students from every class that was the sample in this research.

D. Technique of the Data Collection

In collecting the data, the instruments of this research are converting text test to measure the students' simple past tense English (variable X) and multiple choice test to measure the students' simple past tense Arabic (variable Y).

1. Test

A test is method of measuring a person's ability, knowledge, or performance in a given domain (Brown, 2010:3). To measure students' ability on simple past tense and fi'il madhi of second semester at UPB of UIN Antasari Banjarmasin, the researcher prepares instrument test

that was written test. The researcher carries out an objective test which consists two kinds of tests. They are short answers two completions. The form of short answer (completion) test was required to complete the sentence by using the fi'il madhi and simple past tests.

The total questions are 40 questions which are divided into two types, including:

a. Completion

In this part, the students answered the questions in short. It consists of 20 items of every the fi'il madhi and simple past tense that were scored 5. So, the total items times score ($5 \times 20 = 100$).

E. Technique of Data Analysis

After collecting the data, the researcher took some step to analyze data. The analysis step will as follow:

The researcher categorized the score resulted of test of fi'il madhi data or also called independent variable (X) and test of simple past tense data or also called dependent (Y) into the following criteria. If a student answer was correct , they got score 5. So, the total score of 20 items test from each question of them is $20 \times 5 = 100$. In classifying the score, the researcher used the categories which was submitted by Haris 1969: 134), as follows:

Table 3.3 Criteria of Student's Achievement Analysis

Score	Category
80 - 100	Excellent
70 - 79	Good
60 - 69	Fair
50 - 59	Low
0 - 49	Poor

After that, the researcher determined the students' simple past tense test and fi'il madhi test generally by applying this formula:

Finding the mean

$$M = \frac{\sum X}{N}$$

1. The correlation between Arabic fi'il madhi and English simple past tense .

After the data of student's Arabic fi'il madhi and English simple past tense were collected. The researcher examined research hypothesis by calculating and correlate the data of X and Y variables. The examination uses Product Moment.

The equation for Pearson (r) is a follow:

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

r_{xy} = correlation coefficient between variable X and Y

N = respondent total

$\sum x$ = the values for the X variable

$\sum y$ = the values for the Y variable

$\sum x.y$ = the values for the XY variable

The researcher interpreted the value r_{xy} by comparing it with r_1 with significant value 0,05. The result of correlation between X and Y variables were compared with the value (r_{table}). The table is 5% or 1% if $r_{xy} > r_{table}$ was significant or there was correlation between Arabic fi'il madhi and English simple past tense if $r_{xy} < r_{table}$ was not significant. It means that there was no correlation between English simple past tense and Arabic fi'il madhi. A positive correlation indicated that the score move together either increasing or decreasing. A negative correlation indicates that the score on one variable rise and scores on other decrease correlation does not imply caution means two events were in some ways correlated did not mean that on necessarily cause the other. The ranging of correlation coefficient was as follow (Sudijono, 2006).

Table 3.4 Standard Clarification of Correlation

r_{xy}	Interpretation
0,00 – 0,20	There is a very low correlation between variable X and Y
0,20 – 0,40	There is a low correlation between variable X and Y
0,40 – 0,70	There is a medium correlation between variable X and Y
0,70 – 0,90	There is a high correlation between variable X and Y
0,90 – 1,00	There is a very high correlation between variable X and Y

Adapted from Sudijono, (2006)

2. Interpreting Significance of Correlation

To interpret the significance of correlation, it needs to test hypothesis the researcher use IBM SPSS 22 with the correlations follow:

- a. If the result of significance > 0.005 it means hypothesis null (H_0) was accepted and hypothesis alternative (H_a) was denied or there is no significant correlation between English simple past tense and Arabic fi'il madhi.
- b. If the result significance < 0.005 it means hypothesis null (H_0) was denied and hypothesis alternative (H_a) is accepted or means there was a significant correlation English simple past tense and Arabic fi'il madhi

3. Interpreting Direction of Correlation

In correlation there were two direction of correlation. The direction was determined based on the coefficient of correlation value. If the coefficient of correlation was positive , it means direction of correlation was the same direction or there was positive correlation. Otherwise, when the coefficient of correlation is negative, it means the direction of correlation was not in the same direction of correlation was not same direction or there was negative correlation.