Chapter Three

Research Method

In this part of research, it will have explained about the method of research that is used by the researcher to find out the conclusion of the research. This method also proved whether the hypothesis relate with the conclusion.

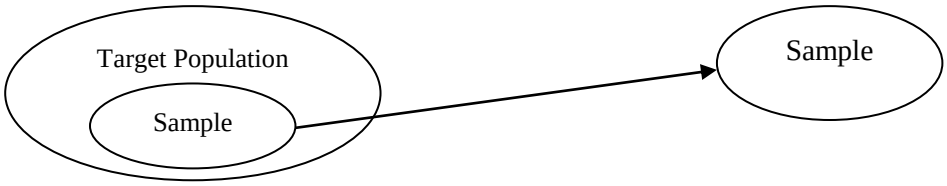
Research Design

The study presented here is a quantitative research; the rationale for this is that quantitative research conducts the inquiry in unbiased manner (Cresswell, 2008). In this quantitative research, the researcher focuses on the research questions that require the researcher to collect quantifiable data by asking specific questions based on participants' opinion.

The researcher used the correlational research design to determine the two factors that are related, not to determine whether one factor causes changes in another factor. The researcher related the two variables of this research. The first variable is the parent's educational background and the second one is the learning motivation of student. By using a survey, we will be able to analyze the correlation between both variables.

Population and Sample

Population is a group of individuals having the same uniqueness (Cresswell, Educational Research, 2008). While, sample is a subgroup of students that is a representative of the whole population of this research (Brown J. D., 2001).



The population in this research is 114 students of ELED UMY. In addition to decide the sample, the researcher used convenience sampling in which the researcher select participants because they are willing and available to be studied (Cresswell, 2008). According to Sugiyono (2010), population is a general thing that includes the quality objects/subjects and certain characteristic that can be applied by the researcher for the research and take the conclusion.

Meanwhile sample is part of the population to get conclusion. According to Louis Cohen (2011); if the population is 100 participants, the number of sample is 80 participants with interval confidence 95%. In this convenience sampling the researcher got the participants of this research from the students of ELED academic year 2012 consists of 114 students which consists of three classes. The sample consists of students of ELED 2012 which consists of around 80 students.

Data Collection Method

The researcher started the collection of data by getting permission from the participants, because the participants are college students, and we had to get permission when we go to their class. The permission is useful to give information

that the participants agree to cooperate in this study. Moreover, sometimes we have to get the permission from the lecturer which is handling the class of participants.

The researcher had chosen a coordinator of students ELED 2012. The next step was the coordinator inform each classes of ELED 2012 and had the 27 students in class to answer a questionnaire. After they answer several questions in the questionnaire, the coordinator gave the questionnaire back to the researcher.

In the data collecting process, the researcher gave questionnaire to the sample or participants of this research. The questionnaire consisted of 30 questions which were related to the variable of motivation, a demographic question including gender, and a question that determine what kind of the parent's educational level. The demographic questions will be useful for the researcher to get information of the participants.

All the survey was conducted anonymously. Sample had sufficient time and space to consider their responses to the questions. Meanwhile, as the survey was anonymous, the samples do not have to worry about losing face to the researcher and their peers when they were answering these questions. The questionnaire is attached as appendices.

Instrument of the Research

The researcher used an instrument with a questionnaire instrument to reach a result from this research. Researcher got the data clearly by using this instrument,

because every sample answered the questionnaire based on their own daily life based on fact.

Validity of Instrument. Azwar (1987: 173) argue that validity is about the accuracy of a measure instrument to start its measure function. For example, a test can be considered as a high validity when the measure tools do the function appropriately. It means that the result of the measure tools is a magnitude which is exactly right to determine the fact and condition in truth. Content validity was a method which is used to measure the validation of an instrument. A test or measurement can be called content test when it measures the special purpose which was equal to the material or content given (Arikunto, 2008). A valid test for a certain aim or for taking a certain decision, it may not be valid for the other aim. In other words, the validity of a test is always related to the purpose or a certain decision.

Reliability of Instrument. Reliability is to what extent the measurement result can be trusted. According to Arifin (1991: 122) a test can be reliable if it always gives the same result when tested in the same groups at different times and locations. While Azwar (1987: 176) said that reliability is one of the main characteristics of a good measurement instrument. To know whether the conception towards the test is stable and consistent, it can be done by giving the same test repeatedly (two times) to the same respondent. Testing for two times is a minimum step to know whether the

correspondent is consistent. The measurement of the test will use value of cronbanch's Alpha in SPSS. The formula is:

$$CA = \left[\frac{k}{k-1}\right]\left[1 - \frac{\sigma_b^2}{\sigma_t^2}\right]$$

CA = coefficient of Cronbach's Alpha

K = the number of the question in point

Sigma b squared = variance grain

Sigma t squared = the total variance

The Score of Cronbranch's Alpha. Table.3.1

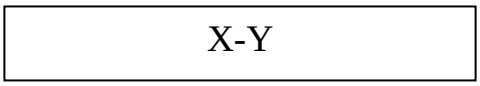
Cronbanch's Alpha	**Internal Consistency**
$\alpha \geq 0.9$	Excellent (High-Stakes testing)
$0.7 \leq \alpha < 0.9$	Good (Low-Stakes testing)
$0.6 \leq \alpha < 0.7$	Acceptable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

Data Analysis Method

In this research, the researcher used a descriptive anlaysis to analyze the data. According to Sukardi (2003), if the research uses the quantitative method for collecting data, the tabulation of data uses the descriptive statistic. The data is shown in a table or a diagram. After that, the data is transferred into SPSS and the data from the questionnaire was analyzed through this program of SPSS.

Correlation test is a method which is used to know the correlation between two quantitative variables (Hasanah, 2013). The correlation analysis discusses about coefficient degree of correlation from those variables. The method to measure a correlation named as Pearson Product Moment. The implementation of correlation coefficient product moment used the interval scale. Analysis of Bivariate correlation is used to find out about the correlation between two variables. This is also used to measure the coefficient of correlation between those variables. These variables were signed as X (independent variable) and Y (dependent variable).

The research design of this study was variable X correlation to variable Y, where variable X was parent's educational level and variable Y is student's learning motivation. The variable of X influenced the variable Y. The design is following below:



X = Parent's Educational Level

Y = Student's Learning Motivation

At the beginning of the process, the research used questionnaire as the instrument to get the data. The researcher used it to get the data about parent's educational background and student's learning motivation. The questionnaire consisted of 30 items of question. In the next step, the researcher used Pearson

Product Moment Correlation to find out the correlation between both variables. The statistical analysis will set up in the table below:

Table Variable.3.2

No	Subject	Variable X	Variable Y	X^2	Y^2	XY
		Parents Educational Level	Student's Learning Motivation			

The next step is the researcher will measure the relationship between the two variables. To find out that the two variables have a correlation, the researcher will use Pearson's Product Moment Coefficient of Correlation, which use the formula:

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

Where:

rxy= Pearson r

ΣX = the sum of scores in X – distribution

ΣY = the sum of scores in Y – distribution

ΣXY = the sum of the product of paired X – Y - scores

ΣX = the sum of the squared scores in X – distribution

ΣY = the sum of the squared scores in Y – distribution

N = the number of paired X – and Y – scores (subjects)

For the next process after getting the result, to interpret the result of the coefficient value of the correlation of two paired variables, the researcher used criteria for evaluation and interpretaion of a correlation coefficient by Sugiyono (2007):

Table.3.3 Coefficient of Relationship

Coeffiient (*r*)	Relationship
0.00 – 0.199	Ineligible
0.20 – 0.399	Low
0.40 – 0.599	Moderate
0.60 – 0.799	Substantial
0.80 – 1.000	High to very high

The table above explained about the coefficient of relationship between two variables of this research. The top of table shows that there was a correlation or relationship but in lowest level. In the score of 0.80 – 1.000 proved that there was a strong relationship.