### **CHAPTER III**

# **RESEARCH METHODOLOGY**

In this chapter discussed the research design, population and sample, research instruments, validity and reliability testing, techniques data collection, and techniques data analysis.

#### A. Research Design

Burns and Grove (2003:195) define a research design as "a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings". Parahoo (1997:142) describes a research design as "a plan that describes how, when and where data are to be collected and analyzed". It means that research design is guidelines or procedures as well as techniques in research planning that are useful as guidelines for developing strategies that produce a research blueprint or model.

The type of this research uses descriptive quantitative research with survey design. According to Christensen (in Sunengsih, 2015) descriptive research design is a study that focuses on describing or explaining phenomena, activity, or a situation that occurs. Quantitative research has meaning as a scientific, objective, measurable, rational, and systematic method.

In this research, the writer wants to find out students' motivation in learning English. Descriptive survey design is suitable to be used because it aims to describe the condition of the population. Survey research designs are procedures in quantitative research in which investigators administer a survey to a sample or to the entire population of people to describe the attitudes, opinions, behaviors, or characteristics of the population. (Creswell, 2008:388).

Conducting this research, the researcher arranges the steps of survey design are as follow (Sukardi, 2003: 195):

- 1. Formulate research issues and determine survey objectives.
- 2. Define concepts and hypotheses as well as explore literature. Sometimes hypotheses are not needed, for example in the study operational
- 3. Sampling.
- 4. Preparation of instruments
- 5. Field work
- 6. Data collection.
- 7. Analysis and reporting

#### **B.** Population and Sample

Polit and Hungler (1999: 37) refer to the population as an aggregate or totality of all the objects, subjects or members that confirm to a set of specifications. According to Creswell (2008: 151) population defined as a group of individuals who have the same characteristic. Based on to those statements, population is not only the existing quantity of subject and the object studied but also involves their characteristics.

This research was conducted at MTs Darul Huda Wonodadi Blitar. In this research the population was all of the students in MTs Darul Huda Wonodadi Blitar. That was consisting of three grades. In the first year, there are three classes that are class VIIA, VIIB, and VIIC. Then, for the second year there are four classes that are class VIIIA, VIIIB, VIIIC, and VIIID. For the third year there are class IXA, IXB, IXC, and IXD. Each class has different number of students. Because students of IX grade have finished the final exam and the researcher did not have opportunity to conduct the research with them the researcher did not able to cover all of the population.

The concept of sampling involves taking a portion, making observation on the smaller group, and then generalizing the finding to the large population from which the sample was drawn (Ary, 2002:163). In other word, sampling is the process or technique that used to take a sample. Sampling has the purpose to gain information about the population. The researcher took sample of all classes from first and second year. The researcher takes 13 students in each class. The total samples of the students from those classes are 91. The researcher took the sample based on Donald Ary that the sampling can be done as much as 50%, then if not possible due to the time, the money is then the smallest sample is taken as much as 5%. Because all population is not large, so the sample takes 50% from the population. Techniques of sample taking which is used in this research are stratified sampling and random sampling. The researcher used stratified sampling because there were three grades on the school that are first year, second year and third year of the students. Then, the researcher also used probality sampling. That is sampling technique that provides equal opportunity for each element (member) of the population to be elected as a sample. Because the study population is considered homogeneous, the sampling technique is by simple random sampling

No.	Class	Population	Sample
1.	VII A	33	13
2.	VII B	29	13
3.	VII C	28	13
4.	VIII A	20	13
5.	VIII B	25	13
6.	VIII C	24	13
7.	VIII D	23	13
Total		182	91

 Table 3.1 The Population and sample of The Research

### C. Research Instrument

The Instrument used in this research is developed based on the research need that is to reveal student's learning motivation in learning English. That is questionnaire. Questionnaire is a number of written questions that are used to obtain information or data from respondents in the sense of a report about themselves or things that are known (Arikunto, 2002: 128). Questionnaire of natural research formulated in the grid is made as statement points. The statement item in the instrument is a description of students' motivation.

In this study, the researcher used structured questionnaire in closed form by using Guttmann scale. It provided two choices of response for the respondents in answering the questionnaire. Those are Yes and No answer. According to Sugiyono (2012:96) Guttmann scale is used to get an explicit and consistent answer to a question that is asked, such as Sure - Not Sure, Yes – No, etc. It was

chosen because this study wants to get a firm answer toward a problem in question.

No.	Scales	Score
1.	Yes	1
2.	No	0

Table 3.2 The Score for Each Rating Guttmann Scales

The instrument developed based on the characteristics of students who have motivation in learning by Uno (2012:23). Then the writer does the steps how was the instrument developing as follow:

1. Review literature

The first step is review literature. It was about students' motivation that related intrinsic and extrinsic motivation. It got from some journals, articles, or previous studies.

2. Blueprint

The result of review literature shows the blueprint. Before the blueprint is used as a guideline for the preparation of items of questionnaire, firstly must be reviewed and declared good. The reviewer should be conducted by a competent person (seen in appendix 1).

3. Drafting questionnaire

Questionnaire is developed from the blueprint's indicator that has been made. Each indicator was developed into several statements related to the purpose of the study. For example; this study to investigate extrinsic and intrinsic students' motivation.

4. Expert validity

Items of questionnaire also need reviewed by a competent person in the field concerned. In other word, validity questionnaire is done by expert judgment. In this step, the researcher asked one of lecture of IAIN Tulungagung and English teacher of MTs Darul Huda Wonodadi Blitar to be expert validation to this instrument (seen in appendix 2).

5. Revising

This revising is done after the validation process. At the time of validation process, the researcher gets comments. criticisms, suggestions from the expert which will be used researcher as a source revising.

6. Trying out

Before being used as an instrument, the researcher gave the questionnaire to the students of VIIA and VIIIC grades of MTsN 4 Tulungagung as a trials. They are chosen because in the same grade with the sample and have some characteristics in learning. So they could give the response in the questionnaire well. The score of trying out test can be seen in appendix 3

7. Revising

Second revising conducted after tryout the questioner to the students. They would give the response about the questionnaire. Those responses will have revised by the researcher. 8. Writing final draft

Writing final instrument is done after all steps have completed. On this step, all statement of questionnaire ready to give to the respondents (seen in appendix 4)

# **D.** Validity and Reliability

Reliability and Validity are important concepts in the research for enhancing the accuracy of the assessment and evaluation of a research work (Tavakol and Dennick, 2011:53). In this research the researcher ensured that the instrument (questionnaire) was valid and reliable by doing validity and reliability testing as follows.

### 1. Validity

Validity is the most important consideration in developing, evaluating, and measuring instruments. According to Arikunto (2006:168) "Validity is a measure that indicates the validity of an instrument". The definition of validity shows the accuracy and suitability of measuring instruments used to measure variables. Measuring tools can be said to be valid if really appropriate and answer carefully about the variables to be measured. Validity also indicates the extent to which the accuracy of the statement with what is stated in accordance with the coefficient of validity.

In this research, the researcher uses content validity. It is the validity that requires the respondents to perform the behavior that is being measured (Brown, 2004:22). The purpose of this study is to investigate the students'

motivation in learning English in MTs Darul Huda wonodadi Blitar and statements in this questionnaire related to the purposes of this study. That is asking about the students' motivation (extrinsic and intrinsic motivation) in learning English.

Before being used as an instrument, the researcher gave the questionnaire to the students of MTsN 4 Tulungagung as a trials. They are chosen because in the same grade with the population'. So they could give the response in the questionnaire well.

After got the students' score for each statements the researcher calculated the validity for each items in the questionnaire by using coeficient correlation formula of *Pearson Product Moment* in IBM SPSS Statistic 16.

Each items are considered to be valid if the value of  $r_{obtained} > r_{table}$ . From 19 (N) samples with significance level 5% the  $r_{table}$  was 0.456. The result of its calculation is summarize in the table 3.3 below:

Table 3.3 The Result of Validity of Questionaire

	r-obtained	<b>r-table</b> (N=19, α=	Notes
		5%)	
ITEM 1	0.473	0.456	Valid
ITEM 2	0.501	0.456	Valid
ITEM 3	0.571	0.456	Valid
ITEM 4	0.461	0.456	Valid
ITEM 5	0.522	0.456	Valid
ITEM 6	0.697	0.456	Valid
ITEM 7	0.645	0.456	Valid
ITEM 8	0.520	0.456	Valid
ITEM 9	0.492	0.456	Valid

ITEM 10	0.513	0.456	Valid
ITEM 11	0.543	0.456	Valid
ITEM 12	0.542	0.456	Valid
ITEM 13	0.645	0.456	Valid
ITEM 14	0.511	0.456	Valid
ITEM 15	0.626	0.456	Valid
ITEM 16	0.603	0.456	Valid
ITEM 17	0.459	0.456	Valid
ITEM 18	0.553	0.456	Valid
ITEM 19	0.552	0.456	Valid
ITEM 20	0.462	0.456	Valid
ITEM 21	0.472	0.456	Valid
ITEM 22	0.583	0.456	Valid
ITEM 23	0.620	0.456	Valid
ITEM 24	0.560	0.456	Valid
ITEM 25	0.541	0.456	Valid
ITEM 26	0.582	0.456	Valid
ITEM 27	0.480	0.456	Valid
ITEM 28	0.462	0.456	Valid
ITEM 29	0.511	0.456	Valid
ITEM 30	0.533	0.456	Valid
ITEM 31	0.482	0.456	Valid
ITEM 32	0.484	0.456	Valid
ITEM 33	0.513	0.456	Valid
ITEM 34	0.513	0.456	Valid
ITEM 35	0.605	0.456	Valid
ITEM 36	0.499	0.456	Valid
ITEM 37	0.543	0.456	Valid
ITEM 38	0.594	0.456	Valid
ITEM 39	0.559	0.456	Valid
ITEM 40	0.492	0.456	Valid

As the table 3.3 shows, the  $r_{obtained}$  for all items are bigger than r-table 0.456. It means that all items were valid. In other words, based on those

calculation from IBM SPSS Statistic 16 all the items can be used to get the data.

# 2. Reliability

According to Sugiyono (2014:348) reliability is an instrument which used multiple times to measure the same object, will produce the same data. The measurement results that have a high degree of reliability will be able to provide reliable results. The high reliability of the instrument is shown by a number called the reliability coefficient. If an instrument is used twice to measure the same phenomenon and its measured results are consistent, the instrument is reliable.

After calculating the validity of the intrument, the researcher also calculated the scores of students of VIIA and VIIIC grade of MTsN 4 Tulungagung as a trials to find out the reliability of the instrument. All items were easily understood by respondents and none of the items was ambiguous. To find out the realibility of the score for each statements' obtained, the researcher calculated the score by using *Cronbach's Alpha* from IBM SPSS Statistics 16.

Table 3.4 The Reliability Statistics of Cronbach's Alpha from IBM SPSSStatistics 16

Reliability Statistics			
Cronbach's Alpha	N of Items		
.936	40		

As the table 3.4 shows, The result of the test was found reliable based on the value of the Cronbach's Alpha that is 0.950. According to Ridwan (2004:118), the criteria of reliability instrument can be divided into 5 classes as follows:

- 1. If the *alpha cronbach* score 0.00-0.20: less reliable
- 2. If the *alpha cronbach* score 0.21-0.40: rather reliable
- 3. If the *alpha cronbach* score 0.41-0.60: enough reliable
- 4. If the *alpha cronbach* score 0.61-0.80: reliable
- 5. If the *alpha cronbach* score 0.81-1.00: very reliable

It can be concluded that the instrument was very reliable. More clearly, the result of realibility calculation for each items can be seen in appendix 5.

#### E. Technique Data Collection

To collect the data, this study using questionnaire distributing. It is about Students' Motivation in learning English in MTs Darul Huda Wonodadi Blitar on May 14<sup>th</sup> & 18<sup>th</sup>, 2018.

The researcher conducted the data when the school was doing final examination and *Pondok Romadhon Activity*. On Tuesday 14<sup>th</sup> at 09 to 11 a.m., the researcher got the permission from the committee of the national examination to conduct the research after the students finished the final examination. On this day, the researcher only took data from VIII classes. Then on May 18<sup>th</sup>, the

researcher entered the main hall after seminar activity. All of VII classes got together to filled the questionnaire around 40 minutes that researcher gave. Then, the researcher is waiting for the students when they work on the questioners and retrieve the completed questionnaire. Finally, the researcher analyze the existing data.

## F. Technique Data Analysis

After the data obtained from the field collected, then the next step is to process the data. In quantitative research, technical data analysis is an activity after data from all respondents collected. Activities in data analysis is to group the data based on the variables and types of responders, tabulating data based on all respondents, presenting the data of each variable studied perform calculations to answer the problem formulation, and do calculations to test the hypothesis that has been proposed.

In order to compute the data, the researcher used computer software statistical analysis, which was Microsoft Excel to calculate the result in form of percentage by using the formula:

Percentage Data:

$$P=\frac{F}{N}\times 100\%$$

Where : P = Percentage of intrinsic/extrinsic motivation F = Frequency of intrinsic/extrinsic motivationN = total of score from questionnaire The researcher calculates the students' intrinsic and extrinsic motivation by including the total of score from the questionnaire into the formula as follows:

1. Percentage of intrinsic motivation

$$P = \frac{828}{1936} x \ 100\% = \ 43\%$$

2. Percentage of extrinsic motivation

$$P = \frac{1108}{1936} x \ 100\% = 57\%$$