CHAPTER III

RESEARCH METHODS

This chapter discussed (1) research design, (2) setting of the study, (3) source of data, (4) research instrument, (5) data collection technique, and (6) data analysis technique

A. Research Design

This research was going to be conducted in correlation research design. It was useful to describe and find out any the significance correlation between two variables the X and Y variables.

Ary writes that:

"Correlation studies are concerned with determining the extent of relationship between variables, they enable one to measure the extent to which variations in one variable are associated with variations in determined through the use of the coefficient of correlation". 49

According to D. Gall and Bore, correlation research refers to studies in which, the purpose was to discover relationship between variables through the use of correlation statistics. They further explained that the basic design of correlation research was very simple, involving nothing more than collecting data on two or more variables for each individual in a sample and computing a correlation coefficient. This research aimed to find any significant correlation between EQ

⁴⁹ Donald Ary, "Introduction to Research in Education", (Canada: Wadworth, Cangage Learning, 2006), 327

⁵⁰ Meredith D. Gall and Water R. Borg, "Education Research: A Guide For Preparing, a Thesis or Dissertation Proposal in Education", (Logman, 2003), 320

and English achievement. Therefore the correlation of research design suited the purpose of this research.

With this design, this research used correlation two variables based on its correlation coefficient value. It was useful to describe and find out the significance of the correlation between those two variables, variable X and variable Y. The first variable was Emotional Quotient, it was considered as independent variable (variable X). The second variable was English achievement, it was considered as dependent variable (variable Y)

B. Setting of the Study

The target population of this research was all the students of the first year at MA Al-Ibrohimi Manyar Gresik. There were 165 students from 4 classes.

It would be impossible for the researcher to investigate all population. Arikunto says that if the number of subjects is more than 100 persons, we can take 10%, 20%, 25% or more of them. Meanwhile, if the number of subjects is less than 100 persons, we can take all population.⁵¹

Based on the explanation above, the researcher made lottery number for all the students in each class. 30 % of students' respondents were taken randomly by lottery from each class. Thus, the number of respondents was 50 students from 4 classes taken as the sample.

⁵¹ Suharsimi Arikunto, "Prosedur Penelitian Suatu Pendekatan Praktik", (Jakarta: PT Rineka Cipta, 2000), 134

The following table showed the exact number of the samples of each class determined by random sampling.

Table 1

Number of the respondents

Class	The number of students	The number of the samples (30%)
X-1	44	13
X-II	42	13
X-III	40	12
X-IV	39	12
Total	165	50

C. Source of Data

Source of data is the important thing in field research. The sources of the data of this research were as follow

- 1. Fifty (50) of first year students from 4 classes of MA Al-Ibrohimi Manyar Gresik as sampling. Questionnaire of EQ had been distributed to this sample of students. The questionnaire was developed based on Goleman's theories and taken from book's Mark Davis, the title is Tes EQ anda.
- 2. Students' English scores as the data of students' English achievement.

D. Data Collection Technique

Collecting data to this research was taken from questionnaire and documentation.

a. Questionnaire

The data of students' emotional quotient was collected using the questionnaire or EQ test. The questionnaire that was used in this research based on Goleman's theories and taken from book's Mark Davis, the title is Tes EQ and a. The questionnaire had been distributed to 50 students in first grade at MA Al-Ibrohimi Manyar Gresik.

b. Documentation

The data of student's achievement had been collected from the English teacher at first grade at MA Al-Ibrohimi Manyar Gresik based on the student's score of students' academic report.

E. Research Instrument

Instrument was used for collecting data. Two kinds of instrument were used to collect the research data: a set of Questionnaire and documentation

1. Questionnaire

The Questionnaire was used to measure the students' Emotional Quotient. The questionnaire of emotional quotient consisted of 25 items of statement in multiple choice form and had 4 options for each indicator that was divided into two kinds of items: the favorable items and the unfavorable items. The favorable items contained self awareness that covered the questions no 1, 11

and 21, managing emotions that covered the questions no 2, 12 and 22, motivating oneself that covered the questions no 3, 13 and 23, recognizing emotions in others that covered the questions no 4, 14 and 24, and handling relationship that covered the questions no 5, 15 and 25. The unfavorable items contained self awareness that covered the question no 6 and 16, managing emotions that covered the questions no 7 and 17, motivating oneself that covered the questions no 8 and 18, recognizing emotions in others that covered the questions no 9 and 19, and handling relationship that covered the questions no 10 and 20. The questionnaire that was used in this research had been developed based on Goleman's theories and taken from book's Mark Davis, the title is Tes EQ anda. It could be seen in appendix I. The technique of scoring EQ for each item used Likert scale.

The questionnaire consisted of 25 items of statements. This distribution of the question in questionnaire could be seen in the table below:

Table 2
Blue print of questionnaire of EQ

No	Indicator	Number of items		Total
		Favorable	Unfavorable	
1	Self awareness	1, 11, 21	6, 16	5
2	Managing emotions	2, 12, 22	7, 17	5
3	Motivating oneself	3, 13, 23	8, 18	5

4	Recognizing emotions in others	4, 14, 24	9, 19	5
5	Handling relationship	5, 15, 25	10, 20	5
Sum		15	10	25

The technique of scoring EQ used Likert scale.⁵² The procedure of scoring favorable items of EQ test was given as follow:

The procedure of scoring unfavorable items of EQ test was given as follow:

The emotional quotient scale had been calculated using the following formula: 53

$$R = H - L + 1$$
$$= 100 - 25 + 1$$

Sugiono, "Statistika Deskriptif Untuk Penelitian", (Jakarta: Raja Grafindo Persada, 2010), 138
 Anas Sudiyono, "Pengantar Statistik Pendidikan", (Jakarta: PT Raja Grafindo Persada, 2006).52

$$= 76$$

Description

R = Total Range

H = Highest Score

L = Lowest Score (Low Value)

1 = constant number

To know the interval class of emotional intelligences, the following formula was used: $i=R\ /\ Ji^{54}$

= 76/4

= 19

Description:

I = Interval class

R = Total Range

JI = Total of Interval

Based on the result above, the classification of Emotional Quotient had been interpreted in the following categories:

$$82 - 100 = \text{Very good}$$

$$63 - 81 = Good$$

44 - 62 = Moderate

25 - 43 = Low

⁵⁴ Sutrisno Hadi, "Statistik Jilid 1", (Yogyakarta: Andi Offiset, 1993),12

To percentage between each component and each item of statements, the researcher used the following formula:

$$P = \frac{\mathbf{f}}{N} \times 100\%$$

Description:

P = Percentage

F = Frequency

N = Respondent

2. Documentation

Arikunto says documentary aims to find out data about something in the form of notes, transcript, newspaper, magazine, etc.⁵⁵

There is one kind of document from which of the data of this study were elicited. The document dealt with the result of English score of student of the last semester. The researcher used document of students' report book.

F. Data Analysis Technique

The technique of data analysis used by the writer was the formula of person's product moment correlation

To examine whether there was correlation between EQ, and English achievement or not, the researcher used person's product moment formula. the

⁵⁵Suharsimi Arikunto, "Prosedur Penelitian Suatu Pendekatan Praktik", (Jakarta: PT Rineka Cipta, 2000),234

data about the students' EQ, and English achievement were analyzed in the following procedures:

- 1. The questionnaire, giving score for each item and summing up had been checked.
- 2. The data on the students' EQ, and English achievement had been tabulated
- 3. The coefficient of correlation between the students' EQ (X) and the students' English achievement (Y) had been determined.

Correlation coefficient usually represented by r indicates indicating both the direction of the correlation (either positive or negative) and the strength or the degree of the relationship between variables.

4. To correlate between the EQ and English achievement had been analyzed by product moment, The researcher used the following formula:56

$$r_{xy} = \frac{N \left[xy \right] \left[xy \right]}{\sqrt{\left[(N \right]^{2} x^{2}) \left[xy \right] \left[(N \right]^{2} y^{2}) \left[xy \right]}}$$

Where:

R = Correlation coefficient of variable X and Y

Σxy = the sum of product of x and y scores of each students

Σx = the sum of x scores

Σν = the sum of y scores

⁵⁶ Anas Sudiyono, "Pengantar Statistik Pendidikan", (Jakarta: Rajawali Press, 2009),206

 $\sum x^2$ = the sum of square of emotional quotient

 $\sum y^2$ = the sum of square of English achievement

 $(\sum x)^2$ = the sum of the square of x score

 $(\sum y)^2$ = the sum of the square of score

N = the total of respondent