

Chapter Three

Methodology

In this chapter, the researcher explains the way and the method in conducting this research. The researcher presents five sub chapters in this chapter. Firstly, the researcher shows the research design that is used in this study. Secondly, the researcher showed the research setting of this study. Thirdly, the researcher explains population and sample of this study. Then, the researcher explains research' instrument. Next, the researcher explains the data collection method of this study. Lastly, the researcher presents the data analysis that used to analyze the data in this study.

Research Design

This research used quantitative approach. This research is about correlation between students' emotional quotient and students' learning achievement. In order to know the relation between those variables, the researcher used correlational design and based on Creswell (2012), "the correlation design demands the researcher to measure the degree of association or relation between two or more variables using the statistical procedure of correlational analysis" (p.21). Anderson and Keith (1997) also stated that correlational design allow the researcher to predict an outcome. The researcher predicted that there is a relation between students' emotional quotient and students' learning achievement. After the researcher saw the correlation, the researcher checked the correlation coefficient that provides meaningful information about the strength of association between two variables.

Research Setting

Research setting is a place where the researcher conducts a research. This research was conducted at English Language Education Department (ELED) in private university at Yogyakarta. This research was started from November 10, 2017 to March 22, 2018. Some

reasons the researcher chooses ELED students to be involved in this research. First, ELED students are prospective teacher. As a teacher candidate, they should have a good emotional quotient and know the correlation between emotional quotient and learning achievement. A teacher should be organize his emotion, so teacher should know about emotional quotient. Second, ELED students are indicated low emotional quotient.

Population and Sample

Population. The populations of this research are ELED students' batch 2014. Referring to Creswell (2012) "population is group of individuals who have the same characteristic" (p. 142). The total number of student batch 2016 is 121 students. This information is obtained from the ELED administration office. This data is used for current research purposes. The researcher chooses students batch 2016 because they fulfill all of the characteristics that the researcher needs. Firstly, students batch 2016 are relatively new students, so this research gives benefits for the lecturer and students to develop this research in their learning process. Secondly, ELED students are the prospective teacher, so they should know the importance of emotional quotient and learning achievement. Third, teacher candidate also know the correlation between students' emotional quotient and learning achievement. The last, students have Grade Point Average (GPA) which measure students' learning achievement.

Sample. The sample is the part of total population. It can be defined as a smaller group or subset of the total population (Cohen, Manion, and Marion, 2011). Based on Creswell (2012), the sample is the group of participants in a study selected from the target population which researcher generalizes to the target population. The researcher used simple random sampling to choose the sample. Before that, the researcher determined the sample size using formula from Notoadmodjo (2010):

$$n = \frac{N}{1 + N \cdot d^2}$$

$$n = \frac{121}{1 + 121 \cdot d^2}$$

$$= 92$$

n = Large sample (92)

N = Large population (121)

d = level of confidence / accuracy desire (0.1)

Based on the formula, the sample size of this research was 92 students at English Language Education Department in private university batch 2016.

Data Collection Method

This research is about correlation emotional quotient and learning achievement. The researcher use SREIT to measure the emotioanal quotient and the researcher use document to measure learning achievement. This SREIT was distributed by Google Form. The researcher shared the questionnaire link to students' batch 2016 from January 10, 2018 to January 15, 2018. The researcher share link to some of the students' batch 2016 and the researcher ask them to share in group class. The researcher used the "Line application" to share the questionnaire to the student batch 2016. There are tow reasons why line application was employed. The first, the students who familiar with this application, so this research did not need to give a training on how to use the application. The second, all of students have the line application in their mobile phone and there was no difficulties access the internet connection, so there was no problem when the researcher distribute the questionnaire. Then, students answered the EQ test one by one based on instruction in the form. The researcher creates the scale of SREIT which consisted of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). Based on Schuttle (1998) the scoring questionnaire is presented on the table below:

Table 2		
Items Scoring		
No.	Scale	Score
1	Strongly Agree	4
2	Agree	3
3	Disagree	2
4	Strongly Disagree	1

This research avoids neutral option because of several reasons. According to Boysen, Vogel, and Madon (2006), neutral (N) create a tendency in this research. It means neutral option provides an easy for respondents who are less inclined to express their opinion. Second, Neutral option influences validity and reliability, because neutral option was the answer choice that contributed least to realibility (Potvin & Gauthier, 2006). It means that neutral option decrease the stability of items. This is the reason why the researcher avoid the neutral options in SREIT test.

Instrument validity. After the researcher translates the EQ test, the researcher will check the instrument validity. This is important to know the instrument is valid or not because based on Cohen et al, (2011), “validity is an important key to effective research” (p.179). The instrument of this research was adapted from the emotional quotion test of Prati’s Dissertation (2004).

In order to measure the validity, the researcher have consulted each item in the EQ test with the expert, it is called expert judgments. Expert judgments are designed score and advice from the experts for each item in the questionnaire. There three experts and they gave score the compatibility of each item with the research purposes, theory and the language aspects. Three experts are the lecturers because they have experinced teaching in one of the

university. And also experts have evaluated many students and know the students' condition. After the researcher got the score and advice from the experts, the researcher has used index from Lawshe and Martuza (Gregory, 2007) checked the content validity. The result the questionnaire after checking of expert judgment could be found in attachment 2. Based on Schuttle (1998) the item category of the valid questionnaire is presented below:

Table 3	
<i>The Detail of Questionnaire Statements</i>	
Questionnaire items	Description
Q1, Q9, Q19,	Self-awareness
Q2, Q3, Q6, Q10, Q12, Q14, Q21,	Self-management
Q8, Q17, Q20, Q23, Q27, Q31	Motivation
Q18, Q26, Q29,	Emphaty
Q4, Q11, Q13, Q15, Q16, Q24, Q25, Q30, Q32	Social skill

Instrument reliability. The instrument that is used in a research should be reliable and trusted in every site and condition where the research is conducted. Creswell (2012) stated that, "Reliability means that scores from an instrument are stable and consistent" (p. 159). Reliability is used to check whether the items are reliable or credible to be used in a research or not. In order to find out the reliability, the data was analyzed using Cronbach's Alpha. According to Creswell (2012), the data or the research instrument have reliable if the Cronbach's Alpha coefficient is higher than or equal to 0.5. Based on Creswell (2012) reliability indicator into three levels.

Table 4		
The Criteria of Reliability		
Score	Category	Interpretation
>0.90	Very High	Items are very highly reliable to collect the data
0.80 – 0.90	High	Items are highly reliable to collect the data
0.70 – 0.69	Moderate	Items are reliable to collect the data
0.60 – 0.69	Low	Items are low reliable to collect the data
<0.60	Very Low	Items are unacceptably low reliability

Table 5	
Reliability Statistics	
Cronbach's Alpha	N of Items
.829	28

The researcher obtained the data using SPSS, it obtained the value 0.829. Based on criteria of reliability 0,829 was categorized good reliability. It means the questionnaire is reliable be distributed to the respondents.

Research Instrument

The researcher uses two instruments to collect the data. Instrument is defined as what the researcher uses to collect data (Aina, 1995; ReSSI, 2017). Instrument is a tool that is used in collecting the data. In this study, the researcher use emotional quotient test (EQ test) and document on students' GPA.

Emotional quotient (EQ) test. In this research, the researcher uses EQ test to measure students' emotional quotient. The researcher uses the EQ test as the appropriate

instrument of this study because the researcher needs numerical data for investigating the correlation between students' emotional quotient and students' academic achievement. EQ test in this research use SREIT (Self-Report Emotional Intelligence Test) which was created by Schutte et al (1998). The researcher adapts SREIT from Prati's (2004) dissertation which was submitted to the Florida State University-College of Business. SREIT also was used by Brazdau and Mihai (2011) to study correlation between emotional intelligence and academic performance at California University. The result of this research showed there was moderate correlation. It means there is a correlation between emotional quotient and academic performance. SREIT test consists 33 items about emotional quotient which includes five domains of emotional quotient. The researcher translates SREIT test from English to Indonesian language to make the participants understand well and answer the questionnaire easily. Then, it can also reduce the bias of data.

Students' Grade Point Average (GPA). In this research, researcher uses students' GPA to measure students' learning achievement. The students' GPA are gained from two ways. The first way is that the researcher asked the respondents to state their GPA into the provided column in the EQ test. The second way is that the researcher asked the GPA' document from EED office.

Data Analysis

There are two types of data analysis that used descriptive statistics and inferential statistics. In descriptive statistic, the researcher checked the mean, median, and mode of the data. Moreover, according to Creswell (2012) "descriptive statistic indicates general tendencies in the data (mean, minimum, maximum), the spread of scores (variance and range)" (p.182). In this research, descriptive statistics was used to answer the research questions about "what is students' emotional quotient at English Language Education Department in private university" and "what is the students' learning achievement at English

Language Education Department in private university”. This research used scale of emotional quotient by Schutte et al (1998).

Table 6		
Emotional Quotient Score Table by Schuttle (1998)		
Scale	Category	Interpretation
33 - 70	Low	Confused about self emotion and other emotion.
70 - 110	Moderate	Understand emotions and control emotions, but sometimes can not handle the emotions in oneself and in others.
111 - 165	High	Accurately percieve emotions in oneself an in others, use emotions to facilitate thinking.

In analyzing data using inferential statistics, there is the assumption of normality that should be checked. Normality is used to know whether the data of each variable is normal or not. In order to check the normality, the researcher used Kolmogorov formula. From the normality test, if the significance is greater than 0.05 the data is normal, whereas, if the significant is less than 0.05 the data is not normal. After the researcher checked the normality, the researcher used Pearson Product Moment in SPSS to correlate between the two variables. Based on Creswell (2012) standard guideline showed below:

Table 7	
Correlational Score Table	
Value	Description
< - 0.20	Very Low
0.21 - 0.35	Low
0.36 - 0.65	Moderate
0.66 - 0.85	High
0.86 - >	Very High