

## **CHAPTER III**

### **RESEARCH DESIGN**

#### **A. Research Approach**

The study uses quantitative approach. It is because the analysis of the study stressed on the numerical data that processed statistically. This research focus on the influence of student foreign language anxiety (FLA) to speaking fluency. The researcher uses statistical analysis to calculate the numerical data which is gathered. The result of the analysis is then interpreted to find out the influence of student foreign language anxiety to speaking fluency.

#### **B. Time and place**

This research was conducted on October - November 2016 at Walisongo State Islamic University (UIN) Semarang.

#### **C. Population and Sample**

According to Arikunto, population is the whole of research subject.<sup>1</sup> The researcher conducted this research only at student of class A 5<sup>th</sup> semester of ELT Department Walisongo State Islamic University Semarang in academic year 2016/2017 because of the limitation of time and energy. This

---

<sup>1</sup> Arikunto, *Prosedur Penelitian*, (Jakarta: Rineka Cipta, 2013), p.173

population was chosen randomly with the reason that every class has the same opportunity to be chosen.

Sample means a part of population that will be observed that can represent and describe the real population.<sup>2</sup>. If population less than 100, all population can be sampled, but if population more than 100, the researcher can take 10%-15%, 20%-25% from all population as sample.<sup>3</sup> Class A 5<sup>th</sup> semester of ELT Department Walisongo State Islamic University Semarang in academic year 2016/2017 as the population has 38 students. So that, in this study, the researcher take all students of class A 5<sup>th</sup> semester of ELT Department Walisongo State Islamic University Semarang in academic year 2016/2017.

#### **D. Variable and indicator**

Sutrisno Hadi defined variable as a varying symptom, as like kind of gender ( male and female ), because gender has variation : male – female; weight : 40 kg, etc. Sympton is research object, therefore variable is varying research object .<sup>4</sup> The variables in this research are:

---

<sup>2</sup> Sugiharto, *Teknik Sampling*, ( Jakarta: Gramedia Pustaka Utama, 2003), p. 2

<sup>3</sup> Suharsimi Arikunto, *Prosedur Penelitian*, (Jakarta: Rineka Cipta, 2002), p. 112.

<sup>4</sup> Suharsimi Arikunto, *Prosedur Penelitian*,... p. 159

a. Independent variable (x)

That is the variable in regression that can be controlled or manipulated.<sup>5</sup> It is also describe as variable which influences another variable ( dependent variable ).<sup>6</sup> The independent variable in this research is student foreign language anxiety. The researcher will use FLCA scale to measure the foreign language anxiety of student with likert scale.

The questions used as the instrument after validity test are as following.

<b>Aspect</b>	<b>Indicator</b>	<b>Number</b>
Physical	Hearth beat fastly, headache, sweaty, etc.	3, 19, 23, 24
Psychology	Stress, anxiet, afraid, not confident, nervous, etc.	1, 2,4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 25, 26
Total		26

---

<sup>5</sup> Allan G. Bluman, *Elementary Statistics*, ( New York : The McGraw-hill Companies ),p. 496

<sup>6</sup> Sugiharto, *Teknik Sampling*, ( Jakarta: Gramedia Pustaka Utama, 2003), p. 15

b. Dependent variable (y)

Dependent variable is variable in regression that cannot be controlled or manipulated.<sup>7</sup> that is influenced or became effect of the independent variable.<sup>8</sup> Dependent variable in this study is speaking fluency. The components of speaking fluency are stop speaking, repeating word, changing word, repairing of word use, look thinking too much. This is using the scoring scale which is designed by H. Douglas Brown.<sup>9</sup>

No	Assessed aspect	Criteria	Score
1	Stop in speaking	Never, never stop or silence while speaking	2
		Sometime, silence 1-3 times	1
		Often, silence while speaking more than 3 times	0
2	Repeating word	Never, never repeating word while speaking	2
		Sometime, repeating word 1-3 times	1
		Often, repeating word more than 3 times	0

---

<sup>7</sup> Allan G. Bluman, *Elementary Statistics*, ...p. 496

<sup>8</sup> Sugiharto, *Teknik Sampling*, ( Jakarta: Gramedia Pustaka Utama, 2003),p.15.

<sup>9</sup> H. Douglas Brown, *Language Assessment: Principles and Classroom Practices*, (New York: Pearson Education, Inc, 2004), p. 157.

3	Changing word	Never, never changing word while speaking	2
		Sometime, Changing word 1-3 times	1
		Often, changing word more than 3 times	0
4	Repairing of word use	Never, never repairing of word use	2
		Sometime, repairing of word use more than 3 times	1
		Often, repairing of word use more than 3 times	0
5	Look thinking much to the word which is going to be uttered	Never, never look thinking much to the word which is going to be uttered	2
		Sometime, look thinking much to the word which is going to be uttered 1-3 times	1
		Often, look thinking much to the word which is going to be uttered more than 3 times	0

#### **E. Data collection technique**

To get the accurate data, in this study the writer used two ways in the collecting data, they are as follows:

## 1. Questionnaire

Questionnaire is the list of questions provided to others who are willing to respond (respondents) as requested by the researcher.<sup>10</sup> It is used to gain information of foreign language anxiety from the respondent.

The students have to answer by choosing five responses. Those are point, A/ Strongly agree, B/ Agree, C/ Neither agree nor disagree, D/ Disagree, E/ Strongly disagree. Each response has different score.

Choice	Score
A	5
B	4
C	3
D	2
E	1

for the question number 2, 8, 11, 14, 18, 22, 28, 32 use reverse score

The data analysis started by summing up the item credits of questionnaire, which had been answered by the

---

<sup>10</sup>Riduwan , *Skala variabel-variabel penelitian*, (Bandung : Alfabeta, 2009) p. 25-26.

respondents. Their individual total scores were graded into five categories: Very high, High, Average, Low, and Very low.<sup>11</sup>

## **2. Performance assessment ( test )**

That is an approach to evaluating students by directly examining their performance on task. Performance assessment is also called authentic assessment, alternative assessment and performance testing. The task used performance assessments are designed complex, complete, and real – life task. A familiar example of performance assessment is driving test required to obtain licence to drive an automobile.<sup>12</sup> In this research, performance assessment is used to measure speaking fluency of students. The point that students get then classified into five categories: Very high, High, Mediocre, Low, and Very low.<sup>13</sup>

## **F. Data Analysis Technique**

The data analysis method used in this research is quantitative analysis.

---

<sup>11</sup> Maja Rogińska, “Overcoming Polish Adult Learners’ of English Anxiety in Speaking”, *WSN* ( Vol. 43, No. 2, 2016), p. 85

<sup>12</sup> Meredith D. Gall, Joyce P. Gall, Walter R. Borg, *Educational Research*, ( USA : Pearson Education, 2003 ), p. 210.

<sup>13</sup> Maja Rogińska, “Overcoming Polish Adult Learners’ of English Anxiety in Speaking”, ... p. 83

## 1. Introductory Analysis

### a. The validity of Instrument

Validity is a degree to which evidence and theory support the interpretation of test score entiled by proposed uses of test.<sup>14</sup> It refers to the extent to which a piece of research actually investigates what the researcher purports to investigate.<sup>15</sup>

In this research, the researcher takes 20 students randomly to test the validity by using lottery. The researcher uses SPSS 16.0 to calculate the validity.

Calculation result of  $r_{xy}$  is compared with  $r$  of product moment by 5% degree of significance. If  $r_{xy}$  is higher than  $r$  table, the item of question is valid.

### b. The reliability of instrument

Reliability refers to the consistency of the result obtained from a piece of research.<sup>16</sup> It concerns the extent to

---

<sup>14</sup> Meredith D. Gall, Joyce P. Gall, Walter R. Borg, *Educational Research*, ... p. 191

<sup>15</sup> David Nunan, *Research Methode in Language Learning*, ( Cambridge : Cambridge University Press, 1992 ), p. 14

<sup>16</sup> David Nunan, *Research Methode in Language Learning*, ... p. 14



which an experiment, test, or any measuring procedure yields the same result on repeated trials.<sup>17</sup>

In this research, the researcher take 20 students randomly to test the reliability by using lottery. The researcher used SPSS 16.0 to calculate the validity.

## **2. Scoring student foreign language anxiety and speaking fluency**

In this research, the result of student foreign language anxiety questionnaire or independent variable (X) and speaking fluency assessment result or called dependent variable ( Y ) are classified into classification criteria.

At the first, the writer puts in the data that collected into the table distribution. After that, the scores are put in the score table of each data collection. Then, finding interval and the quality score of each variable by following steps as follow :

a. Finding out the highest score (H) and the lowest score (L)

b.  $K = 1 + 3.3 \text{ Log } n$

K = interval total

c.  $R = H - L$

---

<sup>17</sup> Edward G. Carmines, Richard A. Zeller, *Reliability and Validity Assessment* ( London : Sage Publication, 1987 ),p. 11

R = range

H = the highest score

L = the lowest score

- d. Class interval with the formula  $i = \frac{R}{K}$  <sup>18</sup>

I = interval

- e. look for the average with the formula  $= \frac{\sum fx}{N}$  <sup>19</sup>

- f. look for the quality of the students foreign language anxiety and speaking fluency of ELT department.

### 3. Hypothetical Analysis

This analysis is to know the influence of student foreign language anxiety to speaking fluency.

- a. Looking for the correlation between predictor and criterium by using technique of correlation product moment. The formula is as following:

$$r_{xy} = \frac{\sum xy}{\sqrt{(\sum x^2)(\sum y^2)}}$$
$$\sum xy = \sum XY - \frac{(\sum X)(\sum Y)}{N}$$
$$\sum x^2 = \sum X^2 - \frac{(\sum X)^2}{n}$$
$$\sum y^2 = \sum Y^2 - \frac{(\sum Y)^2}{n}$$
 <sup>20</sup>

---

p.36

<sup>18</sup> Sugiyono, *Statistika untuk Penelitian*, (Bandung: Alfabeta, 2014),

<sup>19</sup> Sugiyono, *Statistika untuk Penelitian*, ...p.49

From the result above the writer interpreted that category based on the following statement:

- 0,80-1,00 means very high correlation
- 0,60-0,799 means high correlation
- 0,40-0,599 means enough correlation
- 0,20-0,399 means low correlation
- 0,00-0,199 means very low correlation <sup>21</sup>

b. Looking for simple regression

This method is used to measure what extent the influence of student foreign language anxiety to speaking fluency

1. Using the one variable linear regression analysis technique with the formula as follows

$$\hat{Y} = a + bX.$$

$\hat{Y}$  : Projection dependent variable

X : Predicted independent variable

---

<sup>20</sup> Sutrisno Hadi, *Analisis Regresi*, ( Yogyakarta : Andi Yogyakarta, 2004 ), p. 4

<sup>21</sup> Sugiyono, *Metode Penelitian Pendidikan ( Pendekatan Kuantitatif, Kualitatif dan R&D )*, (Bandung : Alfabeta, 2010), p. 257

a : constanta value of Y if X = 0

b : predictor

Value a ( constanta ), and b ( regression coefficient for variable X ) could be found out using

$$b = \frac{n \cdot \sum XY - \sum X \sum Y}{n \cdot \sum X^2 - (\sum X)^2}$$
$$a = \frac{\sum Y - b \cdot \sum X}{N} \quad 22$$

2. looking for the F value

a. Finding out the value a and b

$$b = \frac{n \cdot \sum XY - \sum X \cdot \sum Y}{n \cdot \sum X^2 - (\sum X)^2} \quad a = \frac{\sum Y - b \cdot \sum X}{n}$$

b. Finding out the regression square ( $JK_{Reg[a]}$ ) using

$$JK_{Reg[a]} = \frac{(\sum Y)^2}{n}$$

c. Finding out the regression square ( $JK_{Reg[b|a]}$ ) using

$$JK_{Reg[b|a]} = b \left\{ \sum XY - \frac{(\sum X)(\sum Y)}{n} \right\}$$

---

<sup>22</sup> Riduwan dan Sunarto, *Pengantar Statistika untuk Pendidikan, Sosial, Ekonomi, Komunikasi, dan Bisnis*, (Bandung: Alfabeta, 2009), p. 97

d. Finding out the residu square ( $JK_{Res}$ )

using

$$JK_{Res} = \Sigma Y^2 - JK_{Reg[b|a]} - JK_{Reg[a]}$$

e. Finding out the average of regression square ( $RJK_{Reg[a]}$ ) using

$$RJK_{reg[a]} = JK_{Reg[a]}$$

f. Finding out the average of regression square ( $RJK_{Reg[b|a]}$ ) using

$$RJK_{reg[b|a]} = JK_{Reg[b|a]}$$

g. Finding out residu square ( $RJK_{Res}$ ) using

$$RJK_{res} = \frac{JK_{Res}}{n-2}$$

h. Finding out the significance

$$F_{reg} = \frac{RJK_{Reg(b|a)}}{RJK_{res}} \quad 23$$

#### 4. Final analysis

After getting  $F_{reg}$ , the next step is comparing the price of  $F_{reg}$  with the value. The table is 1% or 5%. It is significant if  $F_{reg} > F_t$  1% or 5%. There is influence of

---

<sup>23</sup> Riduwan dan Sunarto, *Pengantar Statistika untuk Pendidikan, Sosial, Ekonomi, Komunikasi, dan Bisnis, . . .*, p. 97-98

student foreign language anxiety to speaking fluency. It is not significant if  $F_{reg} < F_t$  1% or 5%, there is influence of students foreign language anxiety to speaking fluency.<sup>24</sup>

---

<sup>24</sup> Sutrisno Hadi, *Analisis Regresi*, ( Yogyakarta : Andi Yogyakarta, 2004 ), p.5