CHAPTER IV
RESEARCH FINDING AND DISCUSSION

A. Research Description

The reseaecher conducted the reasearch at class A 5th semester of ELT Department Education and Teacher Training Faculty Walisongo State Islamic University in the academic year 2016/2017. The purposes of the research are :

1. To know how high is the students' foreign language anxiety at the class A 5th semester of ELT Departments at Education and Teacher Training Faculty Walisongo State Islamic University in the academic year 2016/2017.

2. To know how high is the students' speaking fluency at the class A 5th semester of ELT Departments at Education and Teacher Training Faculty Walisongo State Islamic University in the academic year 2016/2017.

3. To find out the influence of foreign language anxiety to speaking fluency at the class A 5th semester of ELT Departments at Education and Teacher Training Faculty Walisongo State Islamic University in the academic year 2016/2017.

B. Result of instrument test

1. The Validity of instrument

The researcher used SPSS 16.0 to test the validity of instrument with 20 respondents. The result as followed.

a. Questionnaire

Table 4.1

The validity of student foreign language anxiety

instrument

No.	Item	R	Validity
1.	Q1	0,791	Valid
2.	Q2	0,825	Valid
3.	Q3	0,733	Valid
4.	Q4	0,837	Valid
5.	Q5	0,523	Valid
6.	Q6	0,693	Valid
7.	Q7	0,442	Valid
8.	Q8	0,503	Valid
9.	Q9	0,807	Valid
10.	Q10	0,782	Valid
11.	Q11	0,881	Valid
12.	Q12	0,751	Valid
13.	Q13	0,592	Valid
14.	Q14	0,831	Valid
15.	Q15	0,748	Valid

16.	Q16	0,772	Valid
17.	Q17	0,801	Valid
18.	Q18	0,738	Valid
19.	Q19	0,181	Not valid
20.	Q20	0,862	Valid
21.	Q21	0,217	Not valid
22.	Q22	0,449	Valid
23.	Q23	0,419	Not valid
24.	Q24	0,662	Valid
25.	Q25	0,636	Valid
26.	Q26	0,915	Valid
27.	Q27	0,730	Valid
28.	Q28	0,532	Valid
29.	Q29	0,651	Valid
30.	Q30	-0,220	Not Valid
31.	Q31	-0,279	Not valid
32.	Q32	-0,622	Not valid
33.	Q33	-0,699	Not valid

b. **Speaking fluency instrument**

Table 4.2

The score of student foreign language anxiety

No.	Item	R	Validity
1.	Ascpect 1	0,972	Valid
2.	Aspect 2	0,972	Valid
3.	Ascpect 3	0,972	Valid
4.	Aspect 4	0,972	Valid
5.	Aspect 5	0,519	Valid

2. **The reliability of instrument**

The researcher used SPSS 16.0 to test the reliability of instrument with 20 respondents. The result as followed.

1. Reliability of questionnaire

Reliability Statistics

Cronbach's Alpha	N of Items
.960	26

2. Reliability of speaking fluency instrument

Reliability Statistics

Cronbach's Alpha	N of Items
.942	5

C. Data Analysis

1. The score of student foreign language anxiety and speaking fluency

a. The student foreign language anxiety

In this research, the writer uses the questionnaire to measure student foreign language anxiety. The questionnaire has 130 point as highest score and 26 as the lowest score. Here is the result of the questionnaire.

Table 4.3

The score of student foreign language anxiety

CODE	X
R-01	69
R-02	66
R-03	70
R-04	68
R-05	70
R-06	102
R-07	73
R-08	66
R-09	95
R-10	101
R-11	92
R-12	70
R-13	101
R-14	96
R-15	105
R-16	65
R-17	66
R-18	70
R-19	65
R-20	70

R-21	70
R-22	67
R-23	69
R-24	70
R-25	64
R-26	74
R-27	97
R-28	64
R-29	69
R-30	101
R-31	70
R-32	64
R-33	95
R-34	70
R-35	94
R-36	64
R-37	69
R-38	95
$\sum$	2946

Based on the table, the highest score of student foreign language anxiety is 105 and the lowest is 64. The score (X) is 2946 and the participants (N) are 38. The next step is determining the distribution frequency of the student foreign language anxiety :

1) Interval Total (K)

   K = 1 + 3.3 Log N

   = 1 + 3.3 Log 38

$$=6,21$$

$$= 6$$

2) Average

$$\overline{X} = \frac{\Sigma fx}{N}$$

$$= \frac{2946}{38}$$

$$= 77,5$$

3) Range

$$R = H\text{-}L$$

$$= 105 - 64$$

$$= 41$$

$$R = Range$$

$$H = The\ highest\ total$$

$$L\ =\ The\ lowest\ total$$

4) Interval Class (i)

$$i= \frac{R}{K}$$

$$i = \frac{41}{6}$$

$$= 6,8 = 7$$

Below is the table of distribution frequency of the student foreign language anxiety.

Table 4.4
Distribution Frequency of Student foreign language anxiety

Interval	M'	F	x'	Fx'	x^2	Fx^2
99-105	102	5	6	30	36	180
92-98	95	7	4	28	16	112

85-91	88	**0**	2	0	4	0
78-84	**81**	**0**	**0**	**0**	**0**	**0**
71-77	74	2	-2	-4	4	8
64-70	67	24	-4	-96	16	384
				$\sum Fx'=42$		$\sum Fx^2=684$

Based on the result of table above, the next step is making the category. They are as following

a. Mean

$$M = M' + i\left(\frac{\sum fx\prime}{N}\right)$$

$$= 81 + 7\left(\frac{-42}{38}\right)$$

$$= 81 + 7\,(\text{-}1,11)$$

$$= 73,23$$

b. Standar deviation:

$$SD = i\sqrt{\frac{\sum fx^2}{N} - \left(\frac{\sum fx\prime}{N}\right)^2}$$

$$= 7\sqrt{\frac{684}{38} - \left(\frac{-42}{38}\right)^2}$$

$$= 7\sqrt{18 - 1,22}$$

$$= 7x\ 4,09$$

$$= 28,6$$

M + 1,5 SD = 73,23 + 1,5 (28,6) = 116,13 = 117 higher

M + 0,5 SD = 73,23 + 0,5 (28,6) = 87,53   = 114-88

M – 0,5 SD = 73,23 – 0,5 (28,6) = 58,93   = 87-59

M – 1,5 SD = 73,23 – 1,5 (28,6) =30,33   = 58-31

= 30 lower

Table 4.5

The Quality of Student foreign language anxiety

Interval	Level	Quality
>117	Very high	
88-114	High	
59-87	Average	Average
31-58	Low	
<30	Very low	

Based on the table above, it is known that the mean from student foreign language anxiety is high**.**

b. **The student speaking fluency**

Table 4.6
The score of student speaking fluency

No	Kode	Y
1	R-01	10
2	R-02	10
3	R-03	9
4	R-04	9
5	R-05	10
6	R-06	6
7	R-07	9
8	R-08	9
9	R-09	10
10	R-10	5
11	R-11	10
12	R-12	10

13	R-13	5
14	R-14	10
15	R-15	5
16	R-16	10
17	R-17	10
18	R-18	6
19	R-19	10
20	R-20	10
21	R-21	10
22	R-22	10
23	R-23	10
24	R-24	10
25	R-25	10
26	R-26	10
27	R-27	10
28	R-28	10
29	R-29	10
30	R-30	5
31	R-31	10
32	R-32	10
33	R-33	5
34	R-34	10
35	R-35	4
36	R-36	10
37	R-37	10
38	R-38	5
	$\sum$	332

1) Interval Total (K)

$$K = K = 1 + 3.3 \text{ Log N}$$

$$= 1 + 3.3 \text{ Log } 38$$

$$= 6,21 = 6$$

2) average

$$\overline{X} = \frac{\sum fx}{N}$$

$$= \frac{332}{38}$$

$$= 8,7$$

3) Range

R = H-L

= 10 – 4

= 6

R = Range

H = The highest total score

L = The lowest total score

4) Interval Class (i)

$$i = \frac{R}{K}$$

$$= \frac{6}{6}$$

$$= 1$$

Table 4.7
Distribution frequency of Student speaking fluency

Interval	M'	F	x'	Fx'	x^2	Fx^2
9-10	9,5	25	6	150	36	900
8-9	8,5	4	4	16	16	64
7-8	7,5	0	2	0	4	0
6-7	**6,5**	**0**	**0**	**0**	**0**	**0**
5-6	5,5	2	-2	-4	4	8
4-5	4,5	7	-4	-28	16	112
				$\sum$Fx'=134		$\sum$Fx^2 =1084

Based on the result of mean calculation above, the next step is making the category. They are as following

1. Mean

$$M = M' + i \left(\frac{\sum fx'}{N} \right)$$

$$= 6,5 + 1 \left(\frac{134}{38} \right)$$

$$= 6,5 + 1 \ (3,53)$$

$$= 10,03$$

2. Standar deviasi:

$$SD = i \sqrt{\frac{\sum fx^2}{N} - \left(\frac{\sum fx'}{N} \right)^2}$$

$$= 1 \sqrt{\frac{1084}{38} - \left(\frac{134}{38} \right)^2}$$

$$= 1 \sqrt{28,5 - 12,4}$$

$$= 1 \times 4,01$$

$$= 4,0$$

M + 1,5 SD = 10,03 + 1,5 (4,01) = 16,04 = 17 higher

M + 0,5 SD = 10,03 + 0,5 (4,01) = 12,03 = 12-9

M − 0,5 SD = 10,03 − 0,5 (4,01) = 8,2 = 8-5

M − 1,5 SD = 10,03 − 1,5 (4,01) = 6,02 = 6-3

$$2 = \ lower$$

Table 4.8
The Quality of Student speaking fluency

Interval	Category	Quality
>17	Very good	
9-12	Good	Good
5-8	Mediocre	
3-6	Low	
<2	Very low	

D. Hypothesis Analysis

1. The correlation of X and Y

Finding the correlation of X and Y by using product moment :

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

Before using the formula, the researcher firstly sought out deviation by using formula :

$$\sum x^2 = \sum X^2 - \frac{(\sum X)^2}{N}$$

$$= 235996 - \frac{(2946)^2}{38}$$

$$= 235996 - 228392,5$$

$$= 7603,5$$

$$\sum y^2 = \sum Y^2 - \frac{(\sum Y)^2}{N}$$

$$= 3062 - \frac{(332)^2}{38}$$

$$= 3062 - 2900,6$$

$$= 161,4$$

$$\sum xy = \sum XY - \frac{(\sum X)(\sum Y)}{N}$$

$$= 24941 - \frac{(2946)(332)}{38}$$

$$= 24941 - 25738,7$$

$$= -797,7$$

The result :

$$\sum x^2 = 7603,5$$

$$\sum y^2 = 161,4$$

$$\sum xy = -797,7$$

So that, the product moment correlation as follows :

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

$$= \frac{-797,7}{\sqrt{(7603,5)(161,4)}}$$

$$= \frac{-797,7}{1107,1}$$

$$= -0,7205$$

The researcher found the coefficient correlation r_{xy} is - 0, 720. Then, r_{xy} is consulted with r_{table} N= 38 for significance 5% (r_{table} = 0, 325). The result of r_{xy} = -0,720 and rt_{able} = 0,325 mean that they have negative correlation.

Tabel 4.9

Correlation coefficient X & Y

N	r_{xy}	r table 5%	Significance
38	0,325	-0,720	**Significant**

Tabel 4.10

Coefficien correlation level X and Y

Interval coefficient	Correlation level
0,80 – 0,1000	Very strong
0,60 – 0,799	Strong
0,40 – 0,599	Medium
0,20 – 0,399	Low
0,00 – 0,199	Very low

From the table, correlation level of student foreign language anxiety and speaking fluency -0, 720 is in the category " strong " in the interval 0,60 – 0, 799.

The researcher also used SPSS 16.0 to support the data.

Correlations		Y	X
Y	Pearson Correlation	1	-.720[**]
	Sig. (2-tailed)		.000
	N	38	38
X	Pearson Correlation	-.720[**]	1
	Sig. (2-tailed)	.000	
	N	38	38

**. Correlation is significant at the 0.01 level (2-tailed).

2. Regression analysis

a. Finding the regression equation

$$\hat{y} = a + bx$$

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

$$a = \frac{\sum Y - b.\sum X}{N}$$

value b and a by using the formula :

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

$$= \frac{38.\ (24941) - (2946)(332)}{38.\ (235996) - (2946)^2}$$

$$= \frac{-30314}{288932}$$

$$= -0{,}105$$

So, the value b = -0,105. And to find value a is using the formula :

$$a = \frac{\sum Y - b.\sum X}{N}$$

$$= \frac{332 - (-0{,}105).(2946)}{38}$$

$$= \frac{641{,}33}{38}$$

$$= 16{,}88$$

where b is -0,105 and a is 16,88. So, the regression equation is

$$y = a + bx$$

$$y = 16{,}88 - 0{,}105x$$

b. Test F

      The level of significant in this research is using α = 5% with F_{tabel} 5% = 4,11. The next step is finding out the value F by using the formula as follows :

1) Finding the quadrate regression ($JK_{Reg[a]}$)

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

$$= \frac{(332)^2}{38}$$

$$= 2900,63$$

2) Finding the quadrate regression ($JK_{Reg\,[b|a]}$)

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

$$= \text{-0,105}\left\{24941 - \frac{(2946)(332)}{38}\right\}$$

$$= \text{-0,105 (-797,7)}$$

$$= 83,\,63$$

3) Finding the quadrate residue (JK_{Res})

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

$$= 3062 - 83,63 - 2900,63$$

$$= 77,61$$

4) Finding the average of quadrate regression ($RJK_{Reg\,[a]}$)

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

$$= 2900,63$$

5) Finding average amount of quadrate regression ($RJK_{Reg[b|a]}$)

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$$RJK_{reg[b|a]} = JK_{Reg[b|a]}$$
$$= 83, 63$$

6) Finding the average amount of quadrate residue $(RJK_{Reg[b|a]})$

$$RJK_{res} = \frac{JK_{Res}}{n-2}$$
$$= \frac{77,61}{38-2}$$
$$= 2,156$$

7) Test of significance

$$F_{count} = \frac{RJK_{Reg(b|a)]}}{RJK_{res}}$$
$$= \frac{83,63}{2,156}$$
$$= 38, 792$$

The data is supported using SPSS 16.0

ANOVA[b]

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	83.696	1	83.696	38.792	.000[a]
Residual	77.672	36	2.158		
Total	161.368	37			

a. Predictors: (Constant), x
b. Dependent Variable: y

The result, F = 38, 84 > F_{table} = 4, 11 with significance 5 %. It means that hypothesis is accepted because F is higher than F_{table}.

c. Test t

The level of significance in this research is α = 5% with t_{table} = 1,697.

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

$$= \frac{-0,720\sqrt{38-2}}{\sqrt{1-(-0,720)^2}}$$

$$= \frac{-0,720 \times 6}{\sqrt{0,481}}$$

$$= \frac{-4,32}{0,693} = -6,228$$

The result, t_{hitung} = -6,228 > t_{table} = 1,697 with significance 5%. So that, the hypothesis is accepted.

3. **The contribution of variable X and Y (R square)**

The next step is finding the contribution of foreign language anxiety to speaking fluency of students 5th semester in class A.

r_{xy} = -0,720

$R = r_{xy} \times r_{xy} = r_{xy}^2 \times 100\%$

$= -0,7205^2 \times 100\%$

$= 0,519 \times 100\%$

$$= 51{,}9\%$$

The count is also supported using SPSS 16.0.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.720[a]	.519	.505	1.46886

a. Predictors: (Constant), x

It means that the variable X (foreign language anxiety) gives influence 51,9% to variable Y (speaking fluency), and 48,1 % that gives influence to speaking fluency is from other aspects.

E. Discussion

The result of the research showed that student foreign language anxiety is "enough" on interval 88 – 114 with the mean 73,23 and the student speaking fluency is "good" on interval 9 – 12 with the mean 10, 03.

The correlation of student foreign language anxiety and speaking fluency is r_{xy} - 0, 720. Then, r_{xy} is consulted with r_{table} N= 38 for significance 5% (r_{table} = 0, 325). The result of r_{xy} = - 0,720 and rt_{able} = 0,325 showed that they have correlation. From the table 4. 10, the correlation level of student foreign language anxiety and speaking fluency -0, 720 is in the category " strong " in the interval 0,60 – 0, 799, and the level of significance in this research is α = 5% with t_{table} = 1,697. t_{count} = -6,22 > t_{table} = 1,697 with significance 5%. The simultaneous (F) test showed that the result, t_{count} = -6,22 > t_{table} = 1,697 with significance 5%.

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Therefore, the hypothesis is accepted. It means that there is influence of students' foreign language anxiety to speaking fluency.

The contribution of variable X and Y is 51,9 %. It means that the variable X (foreign language anxiety) gives influence 51,9% to variable Y (speaking fluency), and 48,1 % that gives influence to speaking fluency is from other aspects.

F. Limitation of research

The researcher realizes that had not been done optimally. There were some obstacles faced during the research process. Some limititrations in this research were:

1. The short time of research process made this research could not be done optimally.
2. It is possible to get different result conducted in defferent place. So that, the research is limited at class A 5th semester of ELT Department UIN Walisongo.
3. Less experience and knowledge of researcher makes this research is not composed comprehensively.

Because of those limitations, it is a need to have study more about the influence of foreign language anxiety to sepaking fluency. By considering those limitations, the better study will be gained.