CHAPTER IV
RESEARCH FINDING AND DISCUSSION

A. Research Finding

1. Result of The Test of Instrument

Before the test instrument used in this study, the researcher conducted testing instrument first. The goal is to obtain a good instrument. After testing the instruments by using the formulas as were explained in chapter III. These were the result of the test of instrument:

a. Vocabulary test instrument

Table I

The Test Result of Vocabulary Test Instrument

No. Item	Criteria			
	Validity	Difficulty Level	Discrimination Index	Reliability
Q-1	Valid	Easy	Satisfactory	Reliable
Q-2	Valid	Easy	Satisfactory	Reliable
Q-3	Valid	Easy	Satisfactory	Reliable
Q-4	Valid	Easy	Satisfactory	Reliable
Q-5	Valid	Easy	Satisfactory	Reliable
Q-6	Valid	Easy	Poor	Reliable
Q-7	Valid	Easy	Satisfactory	Reliable
Q-8	Valid	Easy	Satisfactory	Reliable
Q-9	Invalid	Medium	Satisfactory	Unreliable
Q-10	Valid	Medium	Good	Reliable
Q-11	Valid	Easy	Satisfactory	Reliable
Q-12	Valid	Medium	Good	Reliable
Q-13	Valid	Difficult	Good	Reliable
Q-14	Valid	Difficult	Satisfactory	Reliable
Q-15	Valid	Medium	Good	Reliable

No. Item	Criteria			
	Validity	Difficulty Level	Discrimination Index	Reliability
Q-16	Valid	Difficult	Satisfactory	Reliable
Q-17	Valid	Medium	Good	Reliable
Q-18	Valid	Medium	Good	Reliable
Q-19	Invalid	Medium	Satisfactory	Unreliable
Q-20	Valid	Medium	Satisfactory	Reliable
Q-21	Invalid	Medium	Poor	Unreliable
Q-22	Valid	Easy	Poor	Reliable
Q-23	Valid	Difficult	Excellent	Reliable
Q-24	Valid	Easy	Excellent	Reliable
Q-25	Invalid	Easy	Excellent	Unreliable
Q-26	Valid	Medium	Excellent	Reliable
Q-27	Valid	Easy	Excellent	Reliable
Q-28	Valid	Medium	Excellent	Reliable
Q-29	Valid	Easy	Excellent	Reliable
Q-30	Valid	Medium	Excellent	Reliable
Q-31	Valid	Difficult	Excellent	Reliable
Q-32	Valid	Easy	Excellent	Reliable
Q-33	Valid	Medium	Excellent	Reliable
Q-34	Invalid	Medium	Excellent	Unreliable
Q-35	Valid	Difficult	Excellent	Reliable

(For the complete calculation can be seen in appendix)

b. Questionnaire instrument

Table II
The Test Result of Questionnaire Test Instrument

No. Item	Criteria	
	Validity	Reliability
Q-1	Valid	Reliable
Q-2	Valid	Reliable
Q-3	Valid	Reliable
Q-4	Valid	Reliable
Q-5	Valid	Reliable
Q-6	Valid	Reliable
Q-7	Valid	Reliable
Q-8	Valid	Reliable
Q-9	Valid	Reliable
Q-10	Valid	Reliable
Q-11	Valid	Reliable
Q-12	Valid	Reliable
Q-13	Valid	Reliable
Q-14	Valid	Reliable
Q-15	Valid	Reliable
Q-16	Valid	Reliable
Q-17	Valid	Reliable
Q-18	Valid	Reliable
Q-19	Valid	Reliable
Q-20	Valid	Reliable
Q-21	Valid	Reliable
Q-22	Valid	Reliable
Q-23	Valid	Reliable
Q-24	Valid	Reliable

No. Item	Criteria	
	Validity	Reliability
Q-25	Valid	Reliable

(For the complete calculation can be seen in appendix)

2. Result of The Research

This research consist of three phases of analysis namely introduction analysis, hypothesis analysis and final analysis.

1. Introduction Analysis

a. Students' frequency of watching English Movies

This study tried to describe the frequency of students watch movie. To gather the data, the researcher used questionnaire given to the participant at Eleventh grade of Language study program of MA NU Banat Kudus. The score of questionnaire were listed by summing up the score of students' answer. To make easy in scoring the questionnaire, the all alternative options of frequency have rank as follow:

Always/strongly agree (A) = 5
Often/ agree (B) = 4
Sometimes/ neutral (C) = 3
Seldom/ disagree (D) = 2
Never/ strongly agree (E) = 1

Table III

The Result of Students' Frequency of Watching English Movies Questionnaire

No	Answer					Score					Total
	A	B	C	D	E	A	B	C	D	E	
R-1	4	3	7	4	6	20	12	21	8	6	67
R-2	8	6	10	1	0	40	24	30	2	0	96
R-3	3	10	7	2	3	15	40	21	4	3	83

No	Answer					Score					Total
	A	B	C	D	E	A	B	C	D	E	
R-4	0	9	10	4	2	0	36	30	8	2	76
R-5	12	11	2	0	0	60	44	6	0	0	110
R-6	0	1	10	8	6	0	4	30	16	6	56
R-7	6	11	5	2	0	30	44	15	4	0	93
R-8	5	6	12	11	1	25	24	36	22	1	108
R-9	1	7	14	2	1	5	28	42	4	1	80
R-10	2	9	8	4	2	10	36	24	8	2	80
R-11	4	9	4	7	1	20	36	12	14	1	83
R-12	8	14	3	0	0	40	56	9	0	0	105
R-13	0	10	11	3	1	0	40	33	6	1	80
R-14	8	12	4	1	0	40	48	12	2	0	102
R-15	3	7	10	4	1	15	28	30	8	1	82
R-16	1	11	13	0	0	5	44	39	0	0	88
R-17	0	7	12	5	1	0	28	36	10	1	75
R-18	1	7	14	3	0	5	28	42	6	0	81
R-19	2	7	12	2	2	10	28	36	4	2	80
R-20	2	5	13	4	1	10	20	39	8	1	78
R-21	3	4	13	3	2	15	16	39	6	2	78
R-22	1	4	12	7	1	5	16	36	14	1	72
R-23	0	16	8	0	1	0	64	24	0	1	89
R-24	6	14	5	0	0	30	56	15	0	0	101
R-25	1	4	9	7	4	5	16	27	14	4	66
R-26	6	9	10	0	0	30	36	30	0	0	96
R-27	1	4	16	3	1	5	16	48	6	1	76
R-28	7	15	3	0	0	35	60	9	0	0	104
R-29	2	6	12	2	3	10	24	36	4	3	77
R-30	2	12	10	0	1	10	48	30	0	1	89
R-31	0	3	3	15	4	0	12	9	30	4	55
R-32	8	10	7	0	0	40	40	21	0	0	101
R-33	0	2	13	5	5	0	8	39	10	5	62
R-34	0	9	16	4	2	0	36	48	8	2	94
R-35	2	8	11	4	0	10	32	33	8	0	83
R-36	7	9	7	1	1	35	36	21	2	1	95
R-37	0	11	8	5	1	0	44	24	10	1	79

No	Answer					Score					Total
	A	B	C	D	E	A	B	C	D	E	
R-38	4	11	9	1	0	20	44	27	2	0	93
R-39	2	4	12	5	2	10	16	36	10	2	74
R-40	0	9	13	2	1	0	36	39	4	1	80
R-41	0	9	10	6	0	0	36	30	12	0	78
R-42	2	9	1	10	3	10	36	3	20	3	72
R-43	4	11	6	1	3	20	44	18	2	3	87
R-44	4	12	6	2	1	20	48	18	4	1	91
R-45	0	10	11	2	0	0	40	33	4	0	77

Based on the table above, the next step was looking for the mean and the students' frequency of watching English Movies (X), there were as followed:

1) Find out the SUM of interval

K = 1+ 3. 3 log n

= 1+ 3. 3 log 45

= 1+ 3. 3 (1. 6532)

= 1+ 5. 45556

= 6. 45556

= 6

2) Find out the range

R = H – L

Where:

R= Range

H= Highest value

L= Lowest value

From the data, it was known that:

H= 110 L= 55

R = H – L

= 110 – 55

= 55

3) Determining class interval

I $= \frac{Range}{Sum\ of\ Interval}$

= R/K

= 55/6

= 9. 16666

= 9

So, class interval was 9 and the SUM of interval was 6

4) Look for Mean and Standard deviation

Table IV

Distribution of Students' Frequency of Watching English Movies

Interval	*F*i	*x*i	*Fix*i	*x*i - $\bar{X}$	(*x*i - $\bar{X}$)^2	*f*i (*x*i - $\bar{X}$)^2
102 – 110	4	106	424	23. 2	538. 2	2152. 96
93 – 101	7	97	679	14. 2	201. 64	1411. 48
84 – 92	6	88	528	5. 2	27. 04	162. 24
75 – 83	20	79	1580	-3. 8	14. 44	288. 8
66 – 74	5	70	350	-12. 8	163. 84	819. 2
57 – 65	1	61	61	-21. 8	475. 24	475. 24
48 – 56	2	52	104	-30. 8	948. 64	1897. 28
Total	45	553	3726	-26. 6	2369. 08	7207. 2

M = $\frac{\sum fix\text{i}}{N}$ SD= $\sqrt{\frac{\sum fi(x\text{i} - \bar{X})^2}{(n-1)}}$

= $\frac{3726}{45}$ = $\sqrt{\frac{7207.2}{(45-1)}}$ = $\sqrt{\frac{7207.2}{44}}$

= 82. 8 = 12. 79844

5) Determining the category of students' frequency of watching English movies

Table V

The Category of Students' Frequency of Watching English Movies

Class Interval	Category
> 105	Very High
85 – 104	High
65 – 84	Medium
45 - 64	Low
25 - 44	Very Low

Based on the table above, it was known that the mean from students' frequency of watching English movies at Eleventh grade on Language Study program of MA NU Banat Kudus was 83. It meant that the category of students' frequency of watching English movies was medium. It was on interval 65 – 84.

b. Students' Vocabulary power

The data of this variable taken from the result of vocabulary test that was given by the researcher to the students at Eleventh grade of Language study program of MA NU Banat Kudus in the academic year of 2012/2013. The result was as followed:

Table VI

The score of Students' Vocabulary Test

No	Score	No	Score
R-1	50	R-26	83
R-2	73	R-27	63
R-3	67	R-28	90
R-4	87	R-29	63
R-5	90	R-30	80
R-6	50	R-31	50

No	Score	No	Score
R-7	77	R-32	87
R-8	87	R-33	53
R-9	73	R-34	80
R-10	77	R-35	87
R-11	70	R-36	87
R-12	90	R-37	70
R-13	70	R-38	67
R-14	80	R-39	63
R-15	77	R-40	83
R-16	80	R-41	60
R-17	60	R-42	67
R-18	73	R-43	83
R-19	70	R-44	87
R-20	77	R-45	60
R-21	63		
R-22	60		
R-23	67		
R-24	80		
R-25	43		

Based on the table above, the next step was looking for the mean and the students' frequency of watching English Movies (X), there were as followed:

1) Find out the SUM of interval

K = 1+ 3. 3 log n

= 1+ 3. 3 log 45

= 1+ 3. 3 (1. 6532)

= 1+ 5. 45556

= 6. 45556 = 6

2) Find out the range

R = H – L

Where:

R= Range

H= Highest value

L= Lowest value

From the data, it was known that:

H= 90 L= 43

R = H – L

= 90 – 43

= 47

3) Determining class interval

I = $\frac{Range}{Sum\ of\ Interval}$

= R/K

= 47/6

= 7. 83333

= 7

So, class interval was 7 and the SUM of interval was 6

4) Look for Mean and Standard deviation

Table VII

Distribution Frequency of Students' Vocabulary Power

Interval	*f*i	*x*i	*fix*i	*x*i - $\bar{X}$	(*x*i - $\bar{X}$)^2	*f*i (*x*i - $\bar{X}$)^2
84 – 90	8	87	696	14. 93	222. 9049	1783.239
77 – 83	9	80	720	7. 93	62. 8849	565. 9641
70 – 76	11	73	803	0. 93	0. 871105	9. 5139
63 – 69	8	66	528	-6. 07	36. 8449	294. 7592
56 – 62	5	59	295	-13. 07	170. 8249	854. 1245
49 – 55	3	52	156	-20. 07	402. 8049	1208. 415
42 - 48	1	45	45	-27. 07	732. 7849	732. 7849
Total	45	462	3243	-42. 49	1629. 914	5448. 801

$$M = \frac{\sum fixi}{N} \qquad SD = \sqrt{\frac{\sum fi(xi - \bar{X})^2}{(n-1)}}$$

$$= \frac{3243}{45} \qquad = \sqrt{\frac{5448.801}{(45-1)}} \qquad = \sqrt{\frac{5448.801}{44}}$$

= 72. 06667 = 18. 65281

= 72. 07

5) Determining the category of students' frequency of watching English movies

Table VIII

The Category of Students' Vocabulary power

Class Interval	Category
> 88	Very High
77 - 87	High
66 - 75	Medium
55 - 65	Low
< 54	Very Low

Based on the table above, it was known that the mean from students' Vocabulary power at Eleventh grade of Language Study program of MA NU Banat Kudus was 72. It meant that the category of students' Vocabulary power was medium. It was on interval 66 – 75.

2. Hypothesis Analysis

This analysis was used to prove that the hypothesis was accepted or rejected. In this research was there was influence of the frequency of watching English movies to students' vocabulary power at eleventh grade of Language study program of MA NU Banat Kudus in the academic year of 2012/2013.

To prove that hypothesis, the researcher used one predictor regression formula with looking for the correlation between predictor (X) and criterion (Y) by using technique of correlation product moment technique, with formula:

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

Where:

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

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

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

Table IX

The Coefficient Correlation between Variable X (Students' Frequency of Watching English Movies) and Variable Y (Students' Vocabulary power)

No	X	Y	X^2	Y^2	XY
R-1	67	50	4489	2500	3350
R-2	96	73	9216	5329	7008
R-3	83	67	6889	4489	5561
R-4	76	87	5776	7569	6612
R-5	110	90	12100	8100	9900
R-6	56	50	3136	2500	2800
R-7	93	77	8649	5929	7161
R-8	108	87	11664	7569	9396
R-9	80	73	6400	5329	5840
R-10	80	77	6400	5929	6160
R-11	83	70	6889	4900	5810
R-12	105	90	11025	8100	9450
R-13	80	70	6400	4900	5600
R-14	102	80	10404	6400	8160

No	X	Y	X^2	Y^2	XY
R-15	82	77	6724	5929	6314
R-16	88	80	7744	6400	7040
R-17	75	60	5625	3600	4500
R-18	81	73	6561	5329	5913
R-19	80	70	6400	4900	5600
R-20	78	77	6084	5929	6006
R-21	78	63	6084	3969	4914
R-22	72	60	5184	3600	4320
R-23	89	67	7921	4489	5963
R-24	101	80	10201	6400	8080
R-25	66	43	4356	1849	2838
R-26	96	83	9216	6889	7968
R-27	76	63	5776	3969	4788
R-28	104	90	10816	8100	9360
R-29	77	63	5929	3969	4788
R-30	89	80	7921	6400	7120
R-31	55	50	3025	2500	2750
R-32	101	87	10201	7569	8787
R-33	62	53	3844	2809	3286
R-34	94	80	8836	6400	7520
R-35	83	87	6889	7569	7221
R-36	95	87	9025	7569	8265
R-37	79	70	6241	4900	5530
R-38	93	67	8649	4489	6231
R-39	74	63	5476	3969	4662
R-40	80	83	6400	6889	6640
R-41	78	60	6084	3600	4680
R-42	72	67	5184	4489	4824
R-43	87	83	7569	6889	7221
R-44	91	87	8281	7569	7917
R-45	77	60	5929	3600	4620
Total	3772	3254	323612	242074	278537

Based on the table above, it was known that the result of coefficient correlation value was:

N : 45 $\sum X^2$: 323612

$\sum X$: 3772 $\sum Y^2$: 242074

$\sum Y$: 3254 $\sum XY$: 278537

To examine the hypothesis, the steps were as followed:

a. Looking for the value of correlation between variable X and variable Y with using the formula:

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

Where:

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

$$= 278537 - \frac{(3772)(3254)}{45}$$

$$= 278537 - \frac{12274088}{45}$$

$$= 278537 - 272757.5$$

$$= 5779.489$$

$$\sum_{x^2} = \sum X^2 - \frac{(3772)^2}{45}$$

$$= 323612 - \frac{14227984}{45}$$

$$= 323612 - 316177.4$$

$$= 7434.578$$

and

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

$$= 242074 - \frac{(3254)^2}{45}$$

$$= 242074 - \frac{10588516}{45}$$

$$= 242074 - 235300.4$$

$$= 6773.644$$

The calculation above then included in the product moment formula as followed:

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

$$= \frac{(5779.489)}{\sqrt{(7434.578)(6773.644)}}$$

$$= \frac{(5779.489)}{\sqrt{50359185}}$$

$$= \frac{5779.489}{7096.421}$$

$$= 0.\ 814423$$

$$= 0.\ 814$$

Based on the calculation above, it was known that the coefficient correlation between variable X and variable Y was 0. 814. So the determination of index correlation is r^2 $(0.\ 814)^2 = 0.\ 663$. It means that the influence of variable X (the frequency of watching English movies) to variable Y (students' vocabulary power) is 66. 3%. While, the rest of variable Y (33. 7%) is influenced by other factors which is not researched in this research.

b. Examining whether there was any significant correlation or not by consulting the result of r_{xy} with table value (r_t).

After doing the correlation test with product moment correlation formula, the result was consulted with r_t (table) on the significant level 5%.

1) It was significant if $r_{xy} > r_t$ 5 %, hypothesis was accepted.
2) It was not significant if $r_{xy} < r_t$ 5 %, hypothesis was rejected.

It was known from the calculation above that r_{xy}= 0. 814 > r_{table} 0. 294, it meant there was a positive correlation between Students' frequency of watching English movies and their Vocabulary power.

From the result above, the researcher will interpret that category of coefficient correlation based on the following:

0, 80 – 1,000 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

Based on the calculation above the researcher concluded that the correlation between variable X and variable Y had a positive correlation with the score correlation 0. 814 and it was categorized as very high correlation.

c. Find the regression similarity with the formula:

$$Y = aX + K$$

Where:

Y = Criterion

X = Predictor

a = the numeral of predictor coefficient

K = the numeral of constant

To look for the score of a and K, the researcher used the formula as followed:

y = ax or $Y - \bar{Y} = a\ (X - \bar{X})$

Where, $y = Y - \bar{Y}$, $x = X - \bar{Y}$, and $a = \frac{\sum_{xy}}{\sum_{x^2}}$

From the data, it was known that:

$\sum_{xy}$ = 5779. 489

$\sum_{x^2}$ = 7434. 578

$\sum_{y^2}$ = 6773. 644

Where, $a = \frac{\sum_{xy}}{\sum_{x^2}}$

$= \frac{5779.489}{7434.578}$

= 0. 77738

So, y = 0. 77738 x

From the data which was collected, it could be looked for:

$\bar{Y} = \frac{\sum Y}{N} = \frac{3254}{45} = 72.31111$

$\bar{X} = \frac{\sum X}{N} = \frac{3772}{45} = 83.82222$

So, the regression similarity was:

y = ax or $Y - \bar{Y} = a (X - \bar{X})$

It could be done as followed:

Y – 72. 31111 = 0. 77738 (X – 83. 82222)

Y - 72. 31111 = 0. 77738 X – 83. 82222

Y = 0. 77738 X – 83. 82222 + 72. 31111

Y = 0. 77738 X + 7. 1493926164

From the calculation above, the regression similarity was:

Y = 0. 77738 X + 7. 1493926164

From the regression similarity, it can be predicted if variable X increase 1 value, so variable Y will increase 0.777 values.

d. Variant analysis of regression line

$JK_{reg} = \frac{(\sum xy)^2}{\sum x^2}$

$= \frac{(5779.489)^2}{7434.578}$

$= \frac{33402493}{7434.578}$

= 4492. 857

$JK_{res} = \sum y^2 - \frac{(\sum xy)^2}{\sum x^2}$

= 6773. 644 – 4492. 857

= 2280. 787

db_{reg} = 1

db_{res} = N – 2

= 45 – 2 = 43

$$RK_{reg} = \frac{JK_{reg}}{db_{reg}}$$

$$= \frac{4492.857}{1}$$

$$= 4492.857$$

$$RK_{res} = \frac{JK_{res}}{db_{res}}$$

$$= \frac{2280.787}{43}$$

$$= 53.04156$$

$$JK_{total} = \sum y^2$$

$$= 6773.644$$

$$F_{reg} = \frac{RK_{reg}}{RK_{res}}$$

$$= \frac{4492.857}{53.04156}$$

$$= 84.7045$$

$$= 84.70$$

To know the result of the regression analysis computation above, it could be seen on the summary of regression analysis table as followed:

Table X

The Summary of Regression Analysis

Variant Resource	db	JK	RK	F *reg*	F *table* 0.05
Regression	1	4492. 857	4492. 857	84. 70	4. 07
Residual	43	2280. 787	53. 04155814		
Total	44	6773. 644			

3. Final analysis

After knowing the regression analysis, the next step was consulting the result with F table, on the significant level 5%. From the hypothesis test above, it was known that F *reg* 84. 70 > F*table* 4. 07, it meant the

hypothesis was accepted. So, there was positive influence of students' frequency of watching English movies to their vocabulary power.

B. Discussion

Based on the regression analysis above, it could be proved that the influence of students' frequency of watching English movies to their vocabulary power in MA NU Banat showed the significant result in 5% significance. Thus, hypothesis was accepted.

From the coefficient test above could be known that r_{xy} 0. 814 > r $_{table}$ 0. 294, it meant significant. So, there was significant influence of students' frequency of watching English movies to their Vocabulary power. The higher frequencies of students watch English movies, the higher students' vocabulary power.

There were some reasons why frequencies of students watch English movies could influence their vocabulary power.

1. When students have seen an object or an action in a movie, their desire to know the label (word) may be increased. When the word is encountered, it is learned very quickly.
2. Movie can tell expert's voice while watching actors / actress' appearance, it help students to catch the meaning of the vocabularies.
3. Movie gives students lots of correct English vocabulary into their head, so they can imitate them and make their own sentences.
4. There are many media that presented English movies, so it might facilitate students to learn vocabulary independently every time.

Although students' frequency of watching English movies had a positive influence to their vocabulary power, it is not the only factor affecting students' vocabulary power. It can be seen from the great of influence which does not reach 100%. There were some reasons why frequency of students watch English movies could not influence their vocabulary power.

1. Students have less motivation in learning English.

2. Students just use English movie as an entertainment medium, so they just focus on the story of the movie.
3. It really has relation with students' listening skill because a big problem of watching English movies that is they are more difficult to know than books. If students don't know the meaning of a word in a book, they can simply to find out in a dictionary; because the word is written there (they know its spelling). With a movie, they sometimes hear something, but they don't know what it is. Sometimes they don't even know if they've heard one word or two.