

## **CHAPTER IV**

### **FINDINGS AND DISCUSSION**

#### **A. Research finding**

After writer has observed and collected some data required, at this chapter, writer analyzed the data in line with research objective.

The analysis steps are as follows:

1. To describe about Listening Intensity to English song of students in eleventh grade of SMA Unggulan Nurul Islami Mijen Semarang.
2. To describe about Vocabulary Power of students in students in eleventh grade of SMA Unggulan Nurul Islami Mijen Semarang.
3. The influence of Listening Intensity to English song toward Vocabulary Power of students in students in eleventh grade of SMA Unggulan Nurul Islami Mijen Semarang..

Before analyzing some problems, writer will describe about SMA Unggulan Nurul Islami Mijen Semarang firstly.

#### **1. General Description of SMA Unggulan Nurul Islami Mijen Semarang.**

##### **a. School Location**

The location of SMA Unggulan Nurul Islami is in Jl. Honggowoso number 09 Mijen Semarang. This location is

comfort and calm, because it is far from crowded area, so, this school is very good for teaching learning process.

**b. History Of Establishing School**

SMA Unggulan Nurul Islami was established on December 4<sup>th</sup>, 2000 by the society figures and educators. It is realization for paying attention from many figures about the importance of educational improvement in the future.

At December , 2000, SMA Unggulan Nurul Islami got certificate registered from Kanwil Depag Province of Central Java by number : 2047/103.07/MN/2000. This school stand on Nurul Islami institution and dr. H.S. Heri Prasetyo, MM as the owner of this institution.

**c. Vision, Mission, and School Purpose**

- a) Vision: committed to be professional education institution, excelling in the field of Science and Technology with good behavior.
- b) Mission:
  - 1) Implement education that has prime quality to the development of Science and Technology.
  - 2) Boarding school education to students in order to deepen and practice of Al-Quran and Hadits.
- c) School objective:
  - 1) To increase knowledge and competence of students as a life modal in society

- 2) To organize and to develop formal education institution
- 3) To create the leaders who have good character and attitude.

**d. School Facilities**

SMA Unggulan Nurul Islami Mijen Semarang has good facilities. There are classrooms, a headmaster room, a teacher too, a library room, a hall, a school healthy unit room, an organization room, one counseling room, laboratories (computers, science, language), toilets, a park area, a canteen, and a mosque. And also some teaching facilities (OHPs, LCD projector, tape recorders, sound systems) and sport facilities (football field, basket field, volley field).

**e. Extracurricular activities**

SMA Unggulan Nurul Islami Mijen Semarang has some organizations to develop students' talent like OSIS, IPNU IPPNU, and other activity in certain days or after school. Extracurricular SMA Unggulan Nurul Islami Mijen Semarang such as a computer course, volleyball, basketball, al-Qur'an study, music, calligraphy and reporter.

**2. Students' Listening Intensity to English Song**

**a. Measuring Questionnaire**

In this research, the writer uses the questionnaire for the research to measure student's Listening Intensity to English

Song. Here the result of the questionnaire from the students to measure their Listening Intensity to English Song.

**Table 4.1**  
**The Score of Students' Listening Intensity to English Song**

<b>No</b>	<b>Code resp.</b>	<b>Score</b>
1	R-01	167
2	R-02	138
3	R-03	147
4	R-04	125
5	R-05	129
6	R-06	124
7	R-07	149
8	R-08	122
9	R-09	124
10	R-10	133
11	R-11	130
12	R-12	150
13	R-13	138
14	R-14	123
15	R-15	136
16	R-16	137
17	R-17	124
18	R-18	145
19	R-19	108
20	R-20	150
21	R-21	137
22	R-22	103
23	R-23	130
24	R-24	134
25	R-25	124
26	R-26	164
27	R-27	109
28	R-28	157

No	Code resp.	Score
29	R-29	138
30	R-30	124
31	R-31	136
32	R-32	102
33	R-33	131
34	R-34	148
35	R-35	136
36	R-36	105
Jumlah		4777

**Table 4.2**  
**Mean Score Distribution of Students' Listening Intensity to English song**

Interval	F	X	Fx
102.00 – 112.00	5	101,50	507.5
113.00 – 123.00	2	112,50	225
124.00 – 134.00	12	123,50	1482
135.00 – 145.00	9	134,50	1210.5
146.00 – 156.00	5	14,50	72.5
157.00 – 167.00	3	156,50	469.5
Total	36	643	3967

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

$$\begin{aligned}
 M &= \frac{\sum fx}{N} \\
 &= \frac{3967}{36} \\
 &= 110.194
 \end{aligned}$$

**Table 4.3**  
**The Quality of Students' Listening intensity to English song**

Class interval	Category	Quality
146.00 – 156.00	High	Low
124.00 – 134.00	Medium	
102.00 – 123.00	Low	

Based on the table above, it is known that the mean from students' listening intensity to English song variable in SMA Unggulan Nurul Islami Mijen Semarang is 110.194. It means that the category of students' listening intensity to English song is low. It is on interval 102.00 – 123.00.

### 3. The Influence of Students' Listening Intensity to English Song toward their Vocabulary Power.

#### a. Measuring Students' Vocabulary Power

**Table 4.4**  
**The Score Students' Vocabulary Power**

No	Code resp.	Score
1	R-01	80
2	R-02	60
3	R-03	75
4	R-04	65
5	R-05	65
6	R-06	65
7	R-07	70
8	R-08	65
9	R-09	60
10	R-10	50

No	Code resp.	Score
11	R-11	60
12	R-12	50
13	R-13	65
14	R-14	65
15	R-15	60
16	R-16	65
17	R-17	70
18	R-18	75
19	R-19	50
20	R-20	75
21	R-21	65
22	R-22	45
23	R-23	55
24	R-24	55
25	R-25	60
26	R-26	90
27	R-27	55
28	R-28	60
29	R-29	45
30	R-30	60
31	R-31	60
32	R-32	35
33	R-33	55
34	R-34	60
35	R-35	40
36	R-36	50
Jumlah		2180

**Table 4.5**  
**Mean Score Frequency Distribution Of Student's Vocabulary Power**

Interval	F	X	Fx
35.00 – 44.00	2	34.50	69
45.00 – 54.00	6	44.50	267
55.00 – 64.00	13	54.50	708.5
65.00 – 74.00	10	64.50	645
75.00 – 84.00	4	74.50	298
85.00 – 94.00	1	84.50	84.5
Total	36		2072

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

$$\begin{aligned}
 M &= \frac{\sum fx}{N} \\
 &= \frac{2072}{36} \\
 &= 57,56
 \end{aligned}$$

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



**Table 4.6**  
**The Quality of Students' Vocabulary Power**

Class interval	Category	Quality
75.00 – 84.00	Very good	Good
55.00 – 64.00	Good	
35.00 – 54.00	Enough	

Based on the table above, it is known that the mean from students' vocabulary power variable in SMA Unggulan Nurul Islami Mijen Semarang is 57.56. It means that the category of students' vocabulary power is good. It is on interval 55.00 – 64.00.

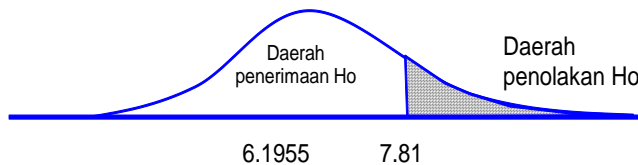
**b. Test of Normality**

- 1) Normality test of students' listening intensity to English song

The computation of normality test can be sequenced as follow:

**Table 4.7**  
**The Normality Test Data of Students' Listening**  
**Intensity to English Song**

Class Interval	Ei	Oi	(Oi-Ei) <sup>2</sup>
			Ei
102.00 - 112.00	2.765	5	1.806
113.00 - 123.00	6.466	2	3.084
124.00 - 134.00	9.517	12	0.648
135.00 - 145.00	8.821	9	0.004
146.00 - 156.00	5.149	5	0.004
157.00 - 167.00	1.891	3	0.650
		36	
$\chi^2$ □ =			6.196



Because  $\chi^2$  in the revenue of Ho area, than that data is normal distribution

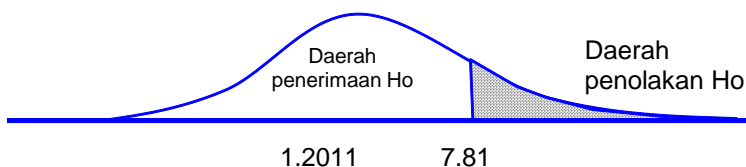
Based on the computation above are gained  $\chi^2_{score} = 6.196$  and  $\chi^2_{table} = 7.81$  and  $dk = 6 - 3 = 3$ ,  $\alpha = 5\%$ . So,  $\chi^2_{score} < \chi^2_{table}$  it means the result of the data have normal distribution. The complete data can be looked at appendix.

2) Normality test of vocabulary power

The computation of normality test can be sequenced as follow:

**Table 4.8**  
**The Normality Test Data of Students' Vocabulary Power**

Class Interval	Ei	Oi	(Oi-Ei) <sup>2</sup>
			Ei
35.00 - 44.00	2.340	2	0.050
45.00 - 54.00	7.870	6	0.444
55.00 - 64.00	12.426	13	0.027
65.00 - 74.00	9.229	10	0.064
75.00 - 84.00	3.220	4	0.189
85.00 - 94.00	0.526	1	0.428
		36	
$\chi^2$ □ =			1.201



Because  $\chi^2$  in the revenue of Ho area, than that data is normal distribution

Based on the computation above are gained  $\chi^2_{score} = 1.201$  and  $\chi^2_{table} = 7.81$  and  $dk = 6 - 3 = 3$ ,  $\alpha = 5\%$ . So,  $\chi^2_{score} < \chi^2_{table}$  it means the initial of control group distributed normally. The complete data can be looked at appendix.

### c. Test of Homogeneity

Test of homogeneity was done to know whether sample in the research come from population that had same variance or not. In this study, the homogeneity of the test was measured by comparing the obtained score ( $\chi^2_{score}$ ) with  $\chi^2_{table}$ . Thus, if the obtained score ( $\chi^2_{score}$ ) was lower than the  $\chi^2_{table}$  or equal, it could be said that the  $H_0$  was accepted.

Based on the homogeneity are gained  $\chi^2_{score} = 8.897$  and  $\chi^2_{table} = 36,42$  and  $dk = k - 1 = 14 - 1 = 13$   $\alpha = 5\%$  . So,  $\chi^2_{score} < \chi^2_{table}$ . It means that the  $\chi^2_{table}$  variance was homogeneous. The analysis of homogeneity test could be seen in appendix.

## 4. Hypothesis Analysis

The analysis is used to prove that the hypothesis is accepted or rejected. In this research, the hypothesis is there is positive influence between students' listening intensity to English song and students' vocabulary power in eleventh grade students of SMA Nurul Islami Mijen Semarang in the academic year of 2012 /2013.

First, before analyzing the data the writer made the tabulation score of students.

**Table 4.9**  
**The Coefficient Correlation Between Variable X (Students’**  
**Listening Intensity To English Song ) And Variable Y (Students’**  
**Vocabulary Power)**

No	Kode	$X_i$	Y	$X_i^2$	$Y^2$	$X_i Y$
1	R-01	167	80	27889	6400	13360
2	R-02	138	60	19044	3600	8280
3	R-03	147	75	21609	5625	11025
4	R-04	125	65	15625	4225	8125
5	R-05	129	65	16641	4225	8385
6	R-06	124	65	15376	4225	8060
7	R-07	149	70	22201	4900	10430
8	R-08	122	65	14884	4225	7930
9	R-09	124	60	15376	3600	7440
10	R-10	133	50	17689	2500	6650
11	R-11	130	60	16900	3600	7800
12	R-12	150	50	22500	2500	7500
13	R-13	138	65	19044	4225	8970
14	R-14	123	65	15129	4225	7995
15	R-15	136	60	18496	3600	8160
16	R-16	137	65	18769	4225	8905
17	R-17	124	70	15376	4900	8680
18	R-18	145	75	21025	5625	10875
19	R-19	108	50	11664	2500	5400
20	R-20	150	75	22500	5625	11250
21	R-21	137	65	18769	4225	8905
22	R-22	103	45	10609	2025	4635
23	R-23	130	55	16900	3025	7150
24	R-24	134	55	17956	3025	7370
25	R-25	124	60	15376	3600	7440
26	R-26	164	90	26896	8100	14760
27	R-27	109	55	11881	3025	5995
28	R-28	157	60	24649	3600	9420
29	R-29	138	45	19044	2025	6210
30	R-30	124	60	15376	3600	7440

No	Kode	$X_1$	Y	$X_1^2$	$Y^2$	$X_1Y$
31	R-31	136	60	18496	3600	8160
32	R-32	102	35	10404	1225	3570
33	R-33	131	55	17161	3025	7205
34	R-34	148	60	21904	3600	8880
35	R-35	136	40	18496	1600	5440
36	R-36	105	50	11025	2500	5250
S		4777	2180	642679	136350	293050

$$N = 36$$

$$\Sigma X^2 = 642679$$

$$\Sigma X = 4777$$

$$\Sigma Y^2 = 136350$$

$$\Sigma Y = 2180$$

$$\Sigma XY = 293050$$

To find out the correlation between students' listening intensity to English song and students' vocabulary power, the writer uses product moment :

### **Coefficient Correlation on Linear Regression**

$$r_{xy} = \frac{N \Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{\{N \Sigma X^2 - (\Sigma X)^2\} \{N \Sigma Y^2 - (\Sigma Y)^2\}}}$$

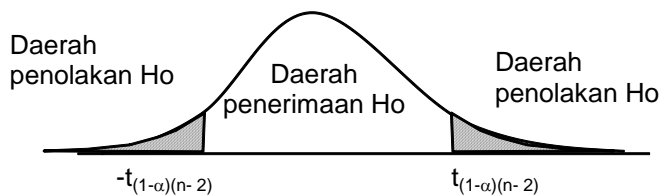
$$r_{xy} = \frac{36 [ 293050 ] - [ 4777 ] [ 2180 ]}{\sqrt{\{ 36 [ 642679 ] - [ 4777 ]^2 \} \{ 36 [ 136350 ] - [ 2180 ]^2 \}}}$$

$$= 0.6112$$

From the computation above, it is found that the correlation coefficient is 0.6112. Where as the critical value of “r” with 95% significant level. Thus, the critical value is lower than the value resulted from the computation above. It means that the hypothesis was accepted. So, there is a high correlation between students’ listening intensity to English song and students’ vocabulary power.

Then, in order to measure the significant of the correlation, the writer uses the *T-test* calculation is as follow:

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



$$t = \frac{0.61 \sqrt{36 - 2}}{\sqrt{1 - 0.374}} = 4.503$$

Finally, from the calculation above, we know that the score is 4.503.  $t \text{ score} = 4.503 > t \text{ table} = 2.03$ . it means that

there is a significant correlation between students' listening intensity to English song and students' vocabulary power.

After getting the correlation, the writer uses regression formula to know degree of students' listening intensity to English song and students' vocabulary power.

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

With coefficient  $a$  and  $b$  with calculated as follow:

$$a = \frac{\sum Y \sum X^2 - \sum X \sum XY}{N \sum X^2 - (\sum X)^2}$$

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

$$\begin{aligned} a &= \frac{\left[ \frac{2180}{36} \right] \left[ \frac{642679}{36} \right] - \left[ \frac{4777}{36} \right] \left[ \frac{293050}{36} \right]}{\left[ \frac{642679}{36} \right] - \left[ \frac{4777}{36} \right]^2} \\ &= 3.601 \\ b &= \frac{36 \left[ \frac{293050}{36} \right] - \left[ \frac{4777}{36} \right] \left[ \frac{2180}{36} \right]}{\left[ \frac{642679}{36} \right] - \left[ \frac{4777}{36} \right]^2} \\ &= 0.429 \\ &= \hat{Y} = a + bx \\ &= 3.601 + 0.429 X \end{aligned}$$



The simple linear equation between students' listening intensity to English song toward their vocabulary power are gained =  $\hat{Y} = 3.601 + 0.429 X$ . it is mean that if the degree of students' listening intensity to English song more high, so the degree of students' vocabulary power also higher.

**The Significant and Linear Test of Equation Regression**  
**The Number of Equation**

**Table 4.10**  
**Table of preparing JK (E)**

No	Kode	X <sub>i</sub>	Y	X <sub>i</sub> <sup>2</sup>	Y <sup>2</sup>	X <sub>i</sub> Y	JKE
1	R-32	102	35.00	10404	1225	3570	0.00
2	R-22	103	45.00	10609	2025	4635	0.00
3	R-36	105	50.00	11025	2500	5250	0.00
4	R-19	108	50.00	11664	2500	5400	0.00
5	R-27	109	55.00	11881	3025	5995	0.00
6	R-08	122	65.00	14884	4225	7930	0.00
7	R-14	123	65.00	15129	4225	7995	0.00
8	R-06	124	65.00	15376	4225	8060	80.00
9	R-09	124	60.00	15376	3600	7440	
10	R-17	124	70.00	15376	4900	8680	
11	R-25	124	60.00	15376	3600	7440	
12	R-30	124	60.00	15376	3600	7440	
13	R-04	125	65.00	15625	4225	8125	0.00
14	R-05	129	65.00	16641	4225	8385	0.00
15	R-11	130	60.00	16900	3600	7800	12.50
16	R-23	130	55.00	16900	3025	7150	
17	R-33	131	55.00	17161	3025	7205	0.00
18	R-10	133	50.00	17689	2500	6650	0.00
19	R-24	134	55.00	17956	3025	7370	0.00
20	R-15	136	60.00	18496	3600	8160	266.67

21	R-31	136	60.00	18496	3600	8160	
22	R-35	136	40.00	18496	1600	5440	
23	R-16	137	65.00	18769	4225	8905	0.00
24	R-21	137	65.00	18769	4225	8905	
25	R-02	138	60.00	19044	3600	8280	216.67
26	R-13	138	65.00	19044	4225	8970	
27	R-29	138	45.00	19044	2025	6210	
28	R-18	145	75.00	21025	5625	10875	0.00
29	R-03	147	75.00	21609	5625	11025	0.00
30	R-34	148	60.00	21904	3600	8880	0.00
31	R-07	149	70.00	22201	4900	10430	0.00
32	R-12	150	50.00	22500	2500	7500	312.50
33	R-20	150	75.00	22500	5625	11250	
34	R-28	157	60.00	24649	3600	9420	0.00
35	R-26	164	90.00	26896	8100	14760	0.00
36	R-01	167	80.00	27889	6400	13360	0.00
Σ		4777	2180	642679	136350	293050	888.33

$$JK(T) = \Sigma Y^2 = 136350$$

$$JK(a) = \frac{(\Sigma Y)^2}{N} = \frac{[2180]^2}{36} = 132011.111$$

$$JK(b|a) = b \left\{ \Sigma XY - \frac{(\Sigma X)(\Sigma Y)}{N} \right\}$$

$$= 0.429 \left\{ 293050 - \frac{[4777][2180.00]}{36} \right\} = 1620.78$$

$$JK(S) = JK(T) - JK(a) - JK(b|a)$$

$$= 136350.000 - 132011.111 - 1620.777 = 2718.111$$

$$JK(E) = \Sigma \left\{ \Sigma Y_i^2 - \frac{(\Sigma Y_i)^2}{n_i} \right\}$$

$$JK(E) = 888.333$$

$$JK(TC) = JK(S) - JK(E)$$

$$= 2718.111 - 888.333 = 1829.778$$

### Acquitted Quadrate (dk)

$$dk(a) = 1$$

$$dk(b|a) = 1$$

$$dk(S) = n - 2 = 36 - 2 = 34$$

$$dk(TC) = k - 2 = 25 - 2 = 23$$

$$dk(E) = n - k = 36 - 25 = 11$$

### Middle Quadrate (KT)

$$KT(a) = \frac{JK(a)}{dk(a)} = \frac{132011.111}{1} = 132011.111$$

$$KT(b|a) = \frac{JK(b|a)}{dk(b|a)} = \frac{1620.777}{1} = 1620.777$$

$$KT(S) = \frac{JK(S)}{dk(S)} = \frac{2718.111}{34} = 79.944$$

$$KT(TC) = \frac{JK(TC)}{dk(TC)} = \frac{1829.778}{23} = 79.556$$

$$KT(E) = \frac{JK(E)}{dk(E)} = \frac{888.333}{11} = 80.758$$

**Table 4.11**  
**The summary of Regression Analysis**

Variation	Dk	JK	RK	F	F <sub>table</sub>	Criteria
Total	36	136350.000				
Regresi (a)	1	132011.111	132011.111	20.27	4.130	Signifikan
Reresi (b a)	1	1620.777	1620.777			
Residu (S)	34	2718.111	79.944			
Tuna Cocok (TC)	23	1829.778	79.556	0.985	2.617	Linier
Galat (E)	11	888.333	80.758			

Because  $f_{reg} > f_{table}$ , is  $20.27 > 4.130$ , hence, it indicates the significant value. It means that there is positive effect of student listening intensity to English song toward their vocabulary power.

## **B. Discussion**

Based on the hypothesis analysis of this study, it could be proved that the influence of students' listening intensity to English song toward their vocabulary power in SMA Nurul Islami Mijen Semarang showed significant result in 5% was significant. Thus, hypothesis was accepted. So, there was significant correlation between students' listening intensity to English song toward their vocabulary power.

Now, there are many ways to teach listening. Listening can be very enjoyable part in teaching learning process if the teachers use suitable media to teach it. Teaching listening using English song is make students more interest in learning process, they can listen

intensive to English song to improve themselves. Improving listening skills is not difficult, the teacher can make it easy to apply intensive listening performance by some steps and strategies. For example, the teacher listens to the English song with certain intonation, stress, etc. to the students. So the students really understand the lyric of the song by the teacher's repetition to the song directly.

English song is a poetic word that is arranged by the writer in order to be sung in English language. English song is able to improve the students' vocabulary power. Because every student listens to the song, they can get the new vocabularies from every lyrics that they hear. Sometimes the students have certain motivation to master certain vocabulary, usually in relation to their need. Because of the importance of vocabulary, it needs a serious attention in learning vocabulary from both learner and teacher. It becomes a great challenging act for the teacher to teach vocabulary, what kinds of method they use, and what kind of vocabulary that they give or how many vocabularies that they should teach, so the students really understand about the vocabularies that they get.

In this research, the students in SMA Unggulan Nurul Islami Mijen Semarang who listen intensively to English song, got better score on vocabulary test. .

There are two variables in this research, independent variable and dependent variable. The independent variable (X) in this research is students' listening intensity to English song in eleventh grade

students of SMA Unggulan Nurul Islami Mijen Semarang. The dependent variable (Y) is students' vocabulary power which influenced by students' listening intensity to English song.

In this research there are weakness and strengthness. The weakness in this research are the writer have limited times to listening English song together in the classroom directly and do not get more information about English program in this school. The strengthness is although the writer can not get the information from the students, the headmaster gave more detail information, from the history of the school, the activity of students and the information that the writer needs.