

CHAPTER IV

RESULT OF ANALYSIS

In this chapter, the researcher presents of speaking analysis, listening analysis, correlation analysis, and data interpretation.

4.1 Speaking Analysis

In this chapter, the researcher focused on finding the result in calculation analysis. The variables were calculated between speaking score and listening habit questionnaire which taken from 21 students at the 1st grade of speaking program especially advance class at Muhammadiyah 2 Senior High School of Surabaya in the academic year of 2017-2018. The researcher added that speaking score as the dependent variable is not only by herself but also obtained from the teachers for assessing student's speaking activity. Besides, the researcher conduct questionnaire of students listening habit to obtain the result of the independent variable. Both of the variables are conducted on the calculation in finding the correlation. Furthermore, the result of the calculation will be analyzed as follows:

This speaking score below was taken by two different assessor. The first assessor was the teacher related on the speaking activity. For the scoring instrument, the researcher used the speaking rubric that has explained before. In addition, the second assessor was the researcher itself. Both of the assessors took for the student's speaking performance at the same time. Moreover, both of the scores have arranged into one. Finally, the possible score that found as the dependent variable was counted for the average from assessor 1 and assessor 2.

Table 4.1 Result of Speaking Scores

Participants	Assessor 1	Assessor 2
Student 1	3.4	3.4
Student 2	3.4	3.55
Student 3	4.6	4.6
Student 4	3.4	3.4
Student 5	3.4	3.55
Student 6	3.4	3.4
Student 7	4	4
Student 8	3.4	3.55
Student 9	3.6	3.6
Student 10	3.34	3.52
Student 11	3.4	3.4
Student 12	3.4	3.4
Student 13	4	4
Student 14	4.32	3.86
Student 15	3.8	3.9
Student 16	3.4	3.95
Student 17	3.4	3.6
Student 18	3.8	3.7
Student 19	3.4	3.4
Student 20	3.8	3.76
Student 21	3.52	3.66

The detail component of the table above presents in appendix.

After having student's speaking performance rating, the score were counted as:

$$\text{Score} = \frac{\text{score from assessor 1} + \text{assessor 2}}{2}$$

Then researcher stated the final score of speaking as dependent variable after having calculation as presented in the table below:

Table 4.2 Result of The Average Speaking Score

Participants	Speaking Scores (X)
Student 1	3.4
Student 2	3.475
Student 3	4.6
Student 4	3.4
Student 5	3.475
Student 6	3.4
Student 7	4
Student 8	3.475
Student 9	3.6
Student 10	3.43
Student 11	3.4
Student 12	3.4
Student 13	4
Student 14	4.09
Student 15	3.85
Student 16	3.675
Student 17	3.5
Student 18	3.75
Student 19	3.4
Student 20	3.78
Student 21	3.59

The detail component of the table above presents in appendix.

Students' final speaking score can be categorized as Brown (2004) statement to measure students speaking ability which the researcher has mentioned in the previous chapter. Here are the characteristics of student score achievement mention by:

Table 4.3 Score Description

Level	Description
3+	Often able to speak the language to satisfy professional needs in a wide range of sophisticated and demanding task
4	Able to use the language fluently and accurately on all levels normally pertinent to professional needs
4+	Speaking proficiency is regularly superior in all respects, usually equivalent to that of a well-educated, highly articulate native speaker

Based on the students' final score achievement could be categorized if the students who got 3+ are often able to speak the language to satisfy professional needs. Several students who reach number 4 have an ability to use language fluently and accurately in all normally level. Moreover, the score of 4+ means students have a higher ability than previous categories. There was classified as superior in all language respects highly articulate as native speaker being.

To help in the descriptive statistic about the result of students' speaking data, the researcher has conducted SPSS on searching for the mean, median, mode, variance, minimum, and maximum score as the table below:

Table 4.4 Result of Descriptive Speaking Score

N	Valid	21
	Missing	0
Mean		3.6762
Median		3.6000
Mode		3.40
Std. Deviation		.29760
Variance		.089
Minimum		3.40
Maximum		4.60

From the data above, there are 21 participants in this research. The mean score of speaking is 3.7 and median of 3.6 that is concluded from the sample

students are often able using the English language fluently and accurately in the form of spoken. The highest score of students speaking achievement is 4.60 means able to pronounce most like the native speaker. Moreover the minimum score result is similar with mode there is 3.40. The last, it also has variance score of 0.89 and 0.29760 as standard deviation.

To sum up, most of the advance class students have an ability like fluent and accurate to speak in English. It is true that advance class is made for students that have a higher level of speaking proficiency. Although there are some students speaking like the real native because of several possible different causes such as the background of knowledge, habituation, course, and comes from the different country.

Next step in analyzing students speaking score is through normality test. This step is important to find how suitable the data distribution of the dependent variable. The researcher used SPSS to find out the Kolmogorov Smirnov result such as this table above:

Table 4.5 Result of Normality Speaking Score

		Assessor 1	Assessor 2	Speaking Score
N		21	21	21
Normal	Mean	3.6276	3.6762	3.6762
Parameters ^{a,b}	Std. Deviation	.35046	.29760	.29760
Most Extreme	Absolute	.313	.177	.177
Differences	Positive	.313	.172	.172
	Negative	-.210	-.177	-.177
Kolmogorov-Smirnov Z		1.436	.810	.810
Asymp. Sig. (2-tailed)		.032	.528	.528

(a). Test distribution is **Normal**. (b). Calculated from data.

The table can be seen that it concluded assessor 1, assessor 2, and the result on an average score is the main point to seek for normality. Naturally, the data

can be significant normal if the number is higher than 0.05. Based on the researcher's data calculation got the significant number of 0.528 that means the distribution data was totally normal.

4.2 Listening Analysis

Researcher conduct questionnaire of students' listening habit as the instrument for obtaining the result of the independent variable. The questionnaire is made by Likert rating scale. For the answer, the researcher made the scale in 4 to 1, which determined as always, often, rarely, and never by the answer that presents on the questions. The score that students obtain is divided by 20 as the number of questions that researcher applied. After that, the result is tested in SPSS calculation program to find out the distribution value. This questionnaire concluded and find out how YouTube is used and affected on student's spoken ability. Before taking questionnaire data from the target population, the pilot test of the questionnaire is needed to find the validity and reliability of each question qualification which was conducted by 10 participants from Intermediate 2 class before applied to target population there was the advance class which concludes 21 students as the research target purpose.

The first step, to examine whether each of the questions has standard normal distribution, validity test was conducted. By using SPSS as calculation program, the researcher releases a result below:

Table 4.6 Result of Validity Questionnaire

Number of Questions	Sig. (2-tailed)	Pearson Correlation
1	.016	.730
2	.003	.830
3	.007	.788
4	.001	.870
5	.012	.751
6	.001	.870
7	.003	.830

8	.012	.751
9	.004	.818
10	.012	.751
11	.007	.788
12	.001	.870
13	.003	.830
14	.007	.788
15	.009	.771
16	.012	.751
17	.022	.709
18	.003	.830
19	.001	.870
20	.016	.730

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

Correlation is significant at the 0.05 level (2-tailed).

The detail component of the table above presents in appendix.

From validity test, the researcher concluded that the number of question is properly valid by conduct SPSS calculation focused on Pearson Correlation Test. The data was predicted as significant if the result of each number is greater than 0.01 as the lowest significant and become more significant if the result more than 0.05. So, after that calculation, it is believed that all question number was valid to distribute.

Table 4.7 Result of Reliability Questionnaire

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.766	.973	21

Then, the researcher conducted *the Cronbach's alpha test* for searching for reliability result whether the types of questionnaire variance is reliable or not. The calculation from SPSS result as researcher got was 0.973 that can be determined that the types of the questionnaire are reliable enough because that number was

higher than the number which represents min result as 0.766 from the result column above. After the questionnaire normality labeled by reliability and validity test, the researcher allowed to test on the target population. There are 21 students from the advance class that conducted to find out the main data as the dependent variable.

Table 4.8 Result of Listening Habit Questionnaire

Participants	Total
Student 1	55
Student 2	49
Student 3	76
Student 4	61
Student 5	56
Student 6	56
Student 7	71
Student 8	71
Student 9	52
Student 10	47
Student 11	52
Student 12	49
Student 13	71
Student 14	61
Student 15	50
Student 16	76
Student 17	68
Student 18	48
Student 19	71
Student 20	62
Student 21	62

The detail component of the table above presents in appendix.

This result took from advance class which the score are characterized such as follows:

- A = 61 – 80, determine very high
- B = 41 – 60, determine above average

- C = 21 – 40, determine average
D = 10 – 20, determine below average

In detail “A” is characterized as an excellent score which student always access YouTube in their daily life and also reflect on increasing their speaking ability. Moreover, the student who got this score is also being able to speak English fluently like the native. And then, the students which got “B” can be categorized often access YouTube for spending their spare time. Not far from “A” score, the students are good to speak English language. And then, “C” categorized that students are rarely to watch YouTube and “D” are for students who are not enough time watch and access YouTube as their routine then might obtain not properly spoken in English language.

From the table above mentioned the score got by the students in advance class. Score “A” and “B” represent their habit. It can be seen from the frequency of watching YouTube is often for entertainment purposes rather than the TV show or another. However, researcher searched for descriptive statistic using SPSS to find mean, median, mode, standard deviation, variance, range, minimum, and maximum then will describe further.

The result of SPSS calculation was applied below. That table is taken from 21 respondents from the advance class. The mean score of the listening questionnaire is 60 that that means the average score of the students is 60. Moreover, the highest score of all students reach by 76 and the lowest one got 47 in listening questionnaire score. Meanwhile, the range of score between the highest and lowest is 29. Then, the median of the score is 61. Besides, there is the mode that shows by the number of 71, then it means most of the students obtain score 71 in listening questionnaire calculation. In last, the standard deviation is 9.8 with variance 95.

Table 4.9 Result of Descriptive Questionnaire

N	Valid	21
	Missing	0
Mean		60.1905
Median		61.0000
Mode		71.00
Std. Deviation		9.77046
Variance		95.462
Range		29.00
Minimum		47.00
Maximum		76.00

The detail component of the table above presents in appendix.

After the researcher conducts the calculation from SPSS program, the result already applied to the table above, it can be seen how much students interest and access YouTube online video in their daily life. From the result of the mode, the researcher knows how many students that often access YouTube. Moreover, the result of the mode is obtained in the score of 71 which categorized on B point that refers in “often” in accessing YouTube. In the other hand, there are two students who obtain the highest score, the score was 76 which literary define obtaining as A point which means that they “always” accessing YouTube and spoke like the native speaker. Overall, it can be concluded that students in advance class are “often” watching YouTube as habituation that described by researcher’s calculation in the result of the independent variable.

4.3 Correlation Analysis

To analyze both independent data and dependent one, the researcher used the formula of “r” Pearson product moment. The data were described below before researcher conducted the calculation.

Table 4.10 Result of Data Calculation

Participants	X	Y	XY	X ²	Y ²
Student 1	3.4	55	187	11.56	3025
Student 2	3.55	49	173.95	12.6025	2401
Student 3	4.6	76	349.6	21.16	5776
Student 4	3.4	61	207.4	11.56	3721
Student 5	3.55	56	198.8	12.6025	3136
Student 6	3.4	56	190.4	11.56	3136
Student 7	4	71	284	16	5041
Student 8	3.55	71	252.05	12.6025	5041
Student 9	3.6	52	187.2	12.96	2704
Student 10	3.52	47	165.44	12.3904	2209
Student 11	3.4	52	176.8	11.56	2704
Student 12	3.4	49	166.6	11.56	2401
Student 13	4	71	284	16	5041
Student 14	3.86	61	235.46	14.8996	3721
Student 15	3.9	50	195	15.21	2500
Student 16	3.95	76	300.2	15.6025	5776
Student 17	3.6	68	244.8	12.96	4624
Student 18	3.7	48	177.6	13.69	2304
Student 19	3.4	71	241.4	11.56	5041
Student 20	3.76	62	233.12	14.1376	3844
Student 21	3.66	62	226.92	13.3956	3844
N = 21	ΣX = 77.2	ΣY = 1264	ΣXY = 4677.74	ΣX² = 285.57	ΣY² = 77990

Formula:

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

Description:

- N = Number of Participants
- X = Students’ Speaking Scores
- Y = Students’ Listening Habit Questionnaire

- ΣX = The Sum Scores of Speaking
- ΣY = The Sum Scores of Listening Habit Questionnaire
- ΣXY = The Sum of Multiplied Score between X and Y
- ΣX^2 = The Sum of the Squared Scores of Speaking
- ΣY^2 = The Sum of the Squared Scores of Listening Habit

Calculation

- N = 21
- ΣX = 77.2
- ΣY = 1264
- ΣXY = 4677.74
- ΣX^2 = 285.57
- ΣY^2 = 77990

$$\begin{aligned}
 r_{xy}^2 &= \frac{N \Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[N \Sigma X^2 - (\Sigma X)^2][N \Sigma Y^2 - (\Sigma Y)^2]}} \\
 &= \frac{21 \times 4677.74 - (77.2)(1264)}{\sqrt{[21 \times 285.57 - (77.2)^2][21 \times 77990 - (1264)^2]}} \\
 &= \frac{98232.54 - 97580,8}{\sqrt{[5996.97 - 5959.84][1637790 - 1597696]}} \\
 &= \frac{651.74}{\sqrt{37.13 \times 40094}} \\
 &= \frac{651.74}{\sqrt{1488690.22}} \\
 &= \frac{651.74}{1220.12} \\
 &= \mathbf{0.534}
 \end{aligned}$$

After the data calculation, the researcher conducted SPSS program to make sure the result of the calculation before. The purpose of using SPSS is to prove whether researcher's calculation manually at the first time was corrected and there

is no mismatching calculation between the score and the researcher count. The calculation of SPSS program was applied such as below:

Table 4.11 Result of Correlation

		Speaking Score	Questionnaire
Speaking Score	Pearson Correlation	1	.534*
	Sig. (2-tailed)		.013
	N	21	21
Questionnaire	Pearson Correlation	.534*	1
	Sig. (2-tailed)	.013	
	N	21	21

*. Correlation is significant at the 0.05 level (2-tailed).

The detail component of the table above presents in appendix.

The result of Pearson correlation calculation above took over 21 respondent was 0.534 which has the significant number of 0.13. By seeing the significant number of data that was 0.13 higher than the standard of correlation at 0.05, it can be concluded that the data has the positive correlation between two variables (speaking ability and listening habit).

Moreover, the first calculation also proved there is no mismatch in manual count. It was because from SPSS program the number of correlation has similarity with the researcher's manual calculation at the beginning. The number shows 0.534 both in the manual calculation and SPSS calculation.

After finding the correlation score, the next step researcher needed to calculate the significant relation between dependent and independent variable. In this step, researcher conducts the result of r (XY) and tested by significance formula.

Formula:

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

Description

$$t_{count} = t_{value}$$

$$n = \text{number of participants}$$

$$r = \text{value of correlation coefficient}$$

Calculation

$$t_{count} = t_{value}$$

$$n = 21$$

$$r = 0.534$$

$$\begin{aligned} t_{count} &= \frac{r \sqrt{n-2}}{\sqrt{1-r^2}} \\ &= \frac{0.534 \sqrt{21-2}}{\sqrt{1-0.534^2}} \\ &= \frac{0.534 \sqrt{19}}{\sqrt{1-0.274576}} \\ &= \frac{0.534 \times 4.359}{\sqrt{0.73}} \\ &= \frac{2.328}{0.854} \\ &= \mathbf{2.726} \end{aligned}$$

Before conduct statistical calculation, in this step has purposes in proving the significance of the research question that researcher mention in the previous chapter about. There is two hypothesis of significance result:

H_a : There is significance correlation between two variables.

H_o : There is no significance correlation between two variables.

The formulation of the test:

1. If $t_o > t_{table}$, it means that null hypothesis is rejected and found of significant correlation.
2. If $t_o < t_{table}$, it means that null hypothesis is accepted and found there is no significant correlation.

Based on the result of the calculation it will be compared by t_{table} in 1% significant for 21 participants. Next formula researcher applied in seek for the Degree of Freedom (Df) in the calculation.

$$\begin{aligned}
 Df &= N - nr \\
 &= 21 - 2 \\
 &= 19
 \end{aligned}$$

The result of Degree of Freedom (Df) was 19. From the result can be indicates that 1% t_{table} from 19 is 2.53. So the number can be measured by comparing between t_{count} and t_{table} , the calculation showed that was $2.726 > 2.53$. Therefore, the alternative hypothesis of H_a is accepted. Finally, there is the significant correlation between the variables of speaking ability and listening habit.

4.4 Data Interpretation

In the previous chapter, the researcher has discussed the theory related to extensive listening and speaking ability quoted from Renandya and Brown. According to Brown (2001), listening skill is closely related to speaking ability performance because both of them relate to the sound in developing students' ability. And the other hand, the previous research that was done by Renandya proved the relationship between those two variables, extensive listening and speaking ability. Related on Renandya's theory that extensive listening refers to all of listening activities which literary provide motivation and pleasure in listening to itself. Besides, extensive listening gave many benefits such as enhances students' ability to develop fast and automatic word recognition skill, increase listening vocabulary, to better cope with fast speech rate, comprehend in deeper language

level, develop facility in processing oral language feature, and to process oral language more fluently and accurately.

Similar to Renandya’s research that mentions the benefits of extensive listening is helping and facilitating students process oral language feature that makes them fluent and accurate in produce oral language. This research result prove that there is positive relation between extensive listening through YouTube and speaking ability that proved by researcher’s observation and statistical calculation that was conducted.

Based on the statistical calculation which is sought in the significance correlation between speaking skill and listening habit, how the relationship between those variables will be explained below. While the next step t_{count} and t_{table} were conducted, this part of calculation was used r_{table} by the number of participants and conducted with the interpretation that was adopted from Ridwan and Sunarto’s theory such as:

Table 4.12 Correlation Interpretation Table

The score of “r” product moment (r_{xy})	Interpretation
0.00 – 0.19	Very low
0.20 – 0.39	Low
0.40 – 0.69	Medium
0.70 – 0.89	High
0.90 – 1.00	Very High

After several calculations above, researcher found that 1% r_0 of 21 participants was 0.534. By the result, researcher got to interpret that the relation between speaking ability and listening habit not just only related each other but also the relation between those variables interpret in medium correlation. As researcher explains in previous chapter, the medium correlation means the calculation value is

between 0.40 and 0.69. For the correlation explanation, both of variables that researcher applied have the standard correlation which means the relation between students watching habit through YouTube sufficiently has in common with students ability especially in speaking English.

To sum up, the data interpretation show a finding that speaking ability and listening habit through YouTube are correlated with each other. The calculation also showed that the student habit of watching YouTube by listening questionnaire gives contribution r_0 0.534 to speaking ability. It means that the ability of student's English speaking is affected by their watching habit through YouTube. In addition, the significant correlation value of H_a means the often students accessed YouTube in their daily life or even as the habit, the students will produce better in proving their speaking ability.