## CHAPTER IV

## RESULT OF THE STUDY

The study was conducted to find out whether or not there is a significant correlation between students' frequency of watching English film and listening skill. The data were collected through questionnaires and listening test. The questionnaire and the listening test were tried out, distributed, collected, scored and calculated.

This chapter shows the result of the study which presents data analysis and discussion.

## A. Data Analysis

## 1. Analysis of Pre-test

The researcher exam the normality and homogeneity both try out class and experiment class by using the mid test score mark. The mid test score can be seen in the appendix. 3 and 4.
a. 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 ( $F_{\text {score }}$ ) with $F_{\text {table }}$. Thus, if the obtained score ( $F_{\text {score }}$ ) was lower than the $F_{\text {table }}$ or equal, it could be said that the Ho was accepted. It
meant that the variance was homogeneous. The analysis of homogeneity test could be seen in table IV.1.

Table IV. 1

| Variant Sources | Experimental C | Tryout C |
| :---: | :---: | :---: |
| Sum | 2583 | 2429 |
| N | 35 | 35 |
| $\bar{X}$ | 73.8 | 69.4 |
| Variance $\left(\mathrm{s}^{2}\right)$ | 65.165 | 54.247 |
| Standard deviation $(\mathrm{s})$ | 8.072 | 7.365 |

By knowing the mean and the variance, the writer was able to test the similarity of the two variants between tryout and experiment class. The computation of the test of homogeneity as follows:
$\mathrm{F}=\frac{\text { Biggest Variance }}{\text { Smallest Variance }}$
$=\underline{65.147}$
54.247
$=1.201$
On a $5 \%$ with df numerator $(n b-1)=35-1=34$ and df denominator $(\mathrm{nk}-1)=35-1=34$, it was found $F_{\text {table }}=$ 1,772. Because of $F_{\text {score }} \leq F_{\text {table }}$, so it could be concluded
that both experimental and tryout class had no differences. The result showed both classes had similar variants (homogenous). For detail calculation can be seen in the appendix 6.
b. Test of Normality

Test of normality was used to find out whether data of tryout and experiment class, which had been collected from the score of mid test both classes, came from normal distribution or not. The formula, that was used, was Chiquadrate. The result computation of Chi-quadrate ( $X_{\text {score }}^{2}$ ) then was compared with table of Chi-quadrate $\left(X_{\text {table }}^{2}\right)$ by using $5 \%$ alpha of significance. If $X_{\text {score }}^{2}<X_{\text {table }}^{2}$ meant that the data spread of research result distributed normally.

Based on the research result of the score of mid test the students of XI IPA II in the tryout class, they reached the maximum score 84 and minimum score 52. The stretches of score were 32 . So, there were 6 classes with length of classes 5. The average score ( $\bar{X}$ ) was 69,40 and the standard deviation ( S ) was 7.37. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-quadrate ( $X_{\text {score }}^{2}$ ).

Table IV. 2 Table of the Observation Frequency of Try out Class

| Class | Bk | $\mathrm{Z}_{\mathrm{i}}$ | $\mathrm{P}\left(\mathrm{Z}_{\mathrm{i}}\right)$ | Area | Ei | Oi | $\frac{\left(O_{i}-E_{i}\right)^{2}}{E_{i}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 51.5 | -2.43 | -0.4925 |  |  |  |  |
| $52-57$ |  |  |  | 0.0455 | 1.2 | 2 | 0.4828 |
|  | 57.5 | -1.62 | -0.4469 |  |  |  |  |
| $58-63$ |  |  |  | 0.1585 | 4.3 | 2 | 1.2135 |
|  | 63.5 | -0.80 | -0.2885 |  |  |  |  |
| $64-69$ |  |  |  | 0.2939 | 7.9 | 14 | 4.6369 |
|  | 69.5 | 0.01 | 0.0054 |  |  |  |  |
| $70-75$ |  |  |  | 0.2908 | 7.9 | 6 | 0.4367 |
|  | 75.5 | 0.83 | 0.2962 |  |  |  |  |
| $76-81$ |  |  |  | 0.1536 | 4.1 | 6 | 0.8287 |
|  | 81.5 | 1.64 | 0.4498 |  |  |  |  |
| $82-87$ |  |  |  | 0.0432 | 1.2 | 1 | 0.0238 |
|  | 87.5 | 2.46 | 0.4930 |  | 0.0432 |  |  |

Based on the Chi-quadrate table ( $\mathrm{X}^{\text {table }}$ ) for 5\% alpha of significance with dk $6-1=5$, it was found $\mathrm{X}_{\text {table }}^{2}=11.07$. Because of $X_{\text {score }}^{2}<X_{\text {table }}^{2}$, so the data of tryout class distributed normally. For detail calculation can be seen in the appendix 7.

Meanwhile from the result of XI IPA II students in experimental class, was found that the maximum score was 92 and minimal score was 60 . The stretches of score were 32 . So, there were 6 classes with length of classes 5 . The average score ( $\bar{X}$ ) was 73.80 and the standard deviation ( S ) was 8.07 . By seeing the average score of students in experimental class. After counting the average score and standard deviation, table of observation frequency was needed to measure Chi-quadrate ( $X_{\text {score }}^{2}$ ).

Table IV. 3 Table of the Observation Frequency of Experimental Class

| Class | Bk | $\mathrm{Z}_{\mathrm{i}}$ | $\mathrm{P}\left(\mathrm{Z}_{\mathrm{i}}\right)$ | Area | Ei | Oi | $\frac{\left(O_{i}-E_{\mathrm{i}}\right)^{2}}{E_{i}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 59.5 | -1.77 | -0.4618 |  |  |  |  |
| $60-65$ |  |  |  | 0.1137 | 3.1 | 6 | 2.7975 |
|  | 65.5 | -1.03 | -0.3481 |  |  |  |  |
| $66-71$ |  |  |  | 0.2359 | 6.4 | 5 | 0.2946 |
|  | 71.5 | -0.28 | -0.1121 |  |  |  |  |
| $72-77$ |  |  |  | 0.2888 | 7.8 | 13 | 3.4711 |


|  | 77.5 | 0.46 | 0.1766 |  |  |  |  |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: | :--- |
| $78-83$ |  |  |  | 0.2086 | 5.6 | 8 | 0.9956 |
|  | 83.5 | 1.20 | 0.3852 |  |  |  |  |
| $84-89$ |  |  |  | 0.0889 | 2.4 | 2 | 0.0664 |
|  | 89.5 | 1.94 | 0.4741 |  |  |  |  |
| $90-95$ |  |  |  | 0.0223 | 0.6 | 1 | 0.2629 |
|  | 95.5 | 2.69 | 0.4964 |  |  |  |  |

Based on the Chi-quadrate table $\left(\mathrm{X}_{\text {table }}^{2}\right)$ for $5 \%$ alpha of significance with df $6-1=5$, it was found $\mathrm{X}_{\text {table }}^{2}=11,07$. Because of $X_{\text {score }}^{2}<X_{\text {table }}^{2}$, so the data of experimental class distributed normally. For detail calculation can be seen in the appendix 8.

## 2. Result of The Test of Questionnaire Instrument

## a. Validity

The test of validity used the formula as was explained in chapter III. Forexample the questionare no.1, the price of $\mathrm{r}_{\mathrm{xy}}=0.496$ and $\mathrm{r}_{\text {table }}$ is 0.334 , with $\mathrm{n}=35$. After getting $\mathrm{r}_{\mathrm{xy}}$, the price of $\mathrm{r}_{\mathrm{xy}}$, is compared with the price of $r_{x y}$, if $r_{x y}>r_{\text {table }}$ so the item tested is valid. It means that the instrument can be used as equipment for collecting data. (See Appendix 13)

## b. Reliability

To test reliability used the formula that was explained in chapter III. After the calculation, for example the try out of questionare get $\mathrm{r}_{11}=0.790$. It means that the coefficient of reliability is on the high reliability (reliable). For the complete calculation can be seen on appendix 13.

## 3. Result of The Test of Listening test instrument

## a. Validity

The test of validity used the formula as was explained in chapter III. Forexample the question no.1, the price of $\mathrm{r}_{\mathrm{xy}}=$ 0.496 and $r_{\text {table }}$ is 0.334 , with $n=35$. After getting $r_{x y}$, the price of $\mathrm{r}_{\mathrm{xy}}$, is compared with the price of $r_{x y}$, if $r_{x y}>r_{\text {table }}$ so the item tested is valid. It means that the instrument can be used as equipment for collecting data. (See Appendix 14)

## b. Reliability

To test reliability used the formula that was explained in chapter III. After the calculation, for example the try out test of listening get $\mathrm{r}_{11}=1.118$. It means that the coefficient of reliability is on the high reliability (reliable). For the complete calculation can be seen on appendix 14.

## c. Distinguishing feature

The calculation used the formula of distinguishing feature and classification of difference power as was explained at chapter III. From the calculation, the question no.1the price of D is 0.74 . Because discrimination index more than 0.30 ,
so the question is accepted. For the complete calculation can be seen in appendix 14.

## d. Difficulty level

The test of difficulty level used the formula that was explained in chapter III. For example question no. 1 the price of difficulty level is 0.24 . It's mean the question no. 1 is medium for the complete calculation can be seen in appendix. 14

## 4. Scoring of the Questionnaires

In scoring the questionnaire of the respondents, the scores were listed by summing up the item credits of their answers. As mentioned in the previous chapter, the writer used likert type scale where each item has five response options; strongly agree, agree, disagree, and strongly disagree.

The response options are assigned 4 point values to each indicating 'strongly agree' in positive statement, a value of 3 for 'agree', 2 for 'disagree', and 1 for 'strongly disagree'. To score the scale, the response options are credited $4,3,2$, and 1 from adequate to in adequate habits. Conversely, the response options are credited $1,2,3$, and 4 from inadequate to adequate habits. The outlines of scoring the questionnaire can be seen in table 4 below:

# Table IV. 4 <br> The Scoring of the Questionnaire 

| Positive Statement | Score | Negative Statement |
| :--- | :---: | :--- |
| Strongly agree | 4 | Strongly Disagree |
| Agree | 3 | Disagree |
| Disagree | 2 | Agree |
| Strongly Disagree | 1 | Strongly agree |
|  |  |  |

The number of items provided in the questionnaire is 23 items. Since the highest score of each item is 4 , then the total score is 92 (that is $4 \times 23$ ). The lowest score of each item is $1 \times 23$, so the lowest score is 23 .

Thus, based on the above scoring technique, the scores of the of the students' frequency were found. The score of students' frequency of watching English film were in the interval scale. In order to facilitate the computation, those scores were converted into four categories; upper, upper middle, lower middle, and lower. The outline of the score can be seen in the table 5 below:

Table IV. 5

## The Converted Score of Students' Frequency of Watching English Film

| Interval Scales | Converted Score | Classification |
| :---: | :---: | :---: |
| $80-88$ | 4 | Upper |
| $71-79$ | 3 | Upper Middle |
| $62-70$ | 2 | Lower Middle |
| $53-61$ | 1 | Lower |

The student's score of frequency of watching English film as follow:

Table IV. 6
The Students' Score of Frequency of Watching English Film

| Name of respondent | Questionnaire Score |
| :---: | :---: |
| R-01 | 50 |
| R -02 | 60 |
| R -03 | 66 |
| R -04 | 63 |
| R-05 | 73 |
| R -06 | 75 |
| R -07 | 62 |


| R -08 | 75 |
| :---: | :---: |
| $\mathrm{R}-09$ | 70 |
| $\mathrm{R}-10$ | 63 |
| $\mathrm{R}-11$ | 67 |
| $\mathrm{R}-12$ | 61 |
| $\mathrm{R}-13$ | 65 |
| $\mathrm{R}-14$ | 62 |
| $\mathrm{R}-15$ | 67 |
| $\mathrm{R}-16$ | 72 |
| $\mathrm{R}-17$ | 65 |
| $\mathrm{R}-18$ | 73 |
| $\mathrm{R}-19$ | 63 |
| $\mathrm{R}-20$ | 61 |
| $\mathrm{R}-21$ | 78 |
| $\mathrm{R}-22$ | 60 |
| $\mathrm{R}-23$ | 63 |
| $\mathrm{R}-24$ | 66 |
| $\mathrm{R}-25$ | 68 |
| $\mathrm{R}-26$ | 67 |
| $\mathrm{R}-27$ | 60 |
| $\mathrm{R}-28$ | 69 |
|  |  |


| R -30 | 60 |
| :---: | :---: |
| R -31 | 65 |
| R -32 | 69 |
| R -33 | 70 |
| R -34 | 69 |
| R -35 | 66 |

Based on the data above, the data shows the distribution of questionnaire scores of 35 students. The outline of the distribution of frequency of watching English film of XI IPA II students can be seen in table 7 below.

Table IV. 7
The Distribution of the Students Frequency of Watching English Film

| Classification | Number of the students | Percentage |
| :---: | :---: | :---: |
| Upper | 0 | $0 \%$ |
| Upper middle | 2 | $17.14 \%$ |
| Lower middle | 22 | $62.86 \%$ |
| Lower | 7 | $20 \%$ |

## 5. Scoring the Listening Test

In scoring the listening test, the writer determined one point for a correct answer and zero for wrong answer. The score were, then, listed by summing up the items that were correctly answered by the students, multiplying by 100 and dividing into the number of listening test item. For example, if a student could answer all the items correctly, the score would be 100 (that is $10 \times 100: 10$ ). The score were graded into four categories: excellent, good, fair, and poor.

Table IV. 9
The Scoring Listening Test

| Interval Scales | Converted Score | Quality |
| :---: | :---: | :---: |
| $85-100$ | 4 | Excellent |
| $69-84$ | 3 | Good |
| $53-68$ | 2 | Fair |
| $37-52$ | 1 | Poor |

The score of students' listening test are follow.
Table IV. 10
The Students' Score of Listening Skill

| Name of respondent | Score |
| :---: | :---: |
| R -01 | 50 |
| R -02 | 60 |
| R -03 | 70 |
| R -04 | 50 |
| R -05 | 80 |
| R -06 | 80 |
| R -07 | 40 |
| R -08 | 80 |
| R -09 | 80 |
| R -10 | 70 |
| R -11 -12 | 80 |
| R -13 | 50 |
| R -14 | 80 |
| R -15 | 70 |
| R -16 | 70 |
| R -17 | 80 |
| R -18 | 70 |
| R 19 | 70 |
|  | 80 |
|  |  |


| R-20 | 70 |
| :---: | :---: |
| R-21 | 80 |
| R-22 | 70 |
| R-23 | 80 |
| R-24 | 70 |
| R-25 | 70 |
| R-26 | 80 |
| R-27 | 80 |
| R-28 | 50 |
| R-29 | 70 |
| R -30 | 50 |
| R -31 | 40 |
| R -32 | 70 |
| R-33 | 80 |
| R-34 | 80 |
| R -35 | 70 |

Then, from the data above, the data shows the distribution of the students' scores on listening test. Below is the table of the students' score on listening test.

Table IV. 11
The Distribution of the Students' Score in Listening Test

| Classification | Number of Students | Percentage |
| :---: | :---: | :---: |
| Excellent | 0 | $0 \%$ |
| Good | 27 | $77.14 \%$ |
| Fair | 1 | $2.86 \%$ |
| Poor | 7 | $20 \%$ |

6. Hypothesis Analysis

After getting the scores of questionnaires and the listening test, the data were statistically computed to find out the correlation between the students' frequency of watching English film and listening skill.

To interpret the research finding, the researcher uses the Pearson Product Moment Correlation Formula as follows:

$$
\mathrm{r}_{\mathrm{xy}}=\frac{N\left(\sum X Y\right)-\left(\sum X\right)\left(\sum Y\right)}{\sqrt{\left\{N\left(\sum X^{2}\right)-\left(\sum X\right)^{2}\right\}\left\{N\left(\sum Y^{2}\right)-\left(\sum Y\right)^{2}\right\}}}
$$

The data preparations for computing the data were obtained in appendix 20. From the appendix 20, the data gained were:
$\mathrm{N} \quad=35$
$\sum \mathrm{X}=2310$

$$
\begin{aligned}
& \sum \mathrm{Y} \quad=2420 \\
& \sum \mathrm{X}^{2} \quad=153494 \\
& \sum \mathrm{Y}^{2} \quad=172600 \\
& \sum \mathrm{XY} \quad=161090 \\
& \mathrm{r}_{\mathrm{xy}}=\frac{35(161019)-(2310)(2420)}{\sqrt{\left\{35(153494)-(2310)^{2}\right\}\left\{35(172600)-(2420)^{2}\right\}}} \\
& \quad=\frac{5638150-5590200}{\sqrt{(36190)(18460)}} \\
& \quad=\frac{47950}{81735.39}=0.587
\end{aligned}
$$

From the computation above, the correlation coefficient was found that was 0.587 . Then $\mathrm{r}_{\mathrm{xy}}$ is consulted to the critical value for r table of Product Moment to examine whether or not the $\mathrm{r}_{\mathrm{xy}}$ value is significant. The value of r table with $\mathrm{N}=35$ and the $5 \%$ significant level is 0.334 . Therefore, it can be concluded that $\mathrm{r}_{\mathrm{xy}}$ is greater than r table or 0.587 is greater than 0.334 or in other words, there is a correlation between students' frequency of watching English film and listening skill.

This research also has purpose to measure the significant correlation between students' frequency of watching English film $(\mathrm{X})$ and students' listening skill (Y). To measure whether there is or not the significant correlation between X and Y above, it was tested by using the $t$-test formula;

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

Based on the computation, if obtained value of $t$ is in the accepted area of Ho that is $-\mathrm{t}_{(1-1 / 2 \alpha)(\mathrm{n}-2)}<\mathrm{t}<_{(1-1 / 2 \alpha)(\mathrm{n}-2) \text {, }}$ it means that the correlation is not significant. In other word, the correlation is significant if $t$ is on rejected area of Ho.


Figure 4.1 Accepted and Rejected area of Ho

The computation of ' $t$ ' can be seen as follows:

$$
\begin{aligned}
\mathrm{t} & =\frac{r \sqrt{n-2}}{\sqrt{1-r^{2}}} \\
& =\frac{0.587 \sqrt{35-2}}{\sqrt{1-0.344}} \\
& =4.161
\end{aligned}
$$

The obtained value of $t$ is 4.161 . Then, it was consulted to $t$ table for $\alpha=5 \%$ and $\mathrm{dk}=(35-2)=33$, it was found that $\mathrm{t}(0.05)$ $(33)=2.03$. The position of ' $t$ ' can be seen in the following figure:


Figure 4.2 The position of ' $t$ '

From the computation and figure above, it can be seen that ' $t$ ' is on the rejected area of Ho (null hypothesis). It means that the Hi (working Hypothesis) is accepted and correlation between the two variables is significant. Thus, the researcher concluded that there is a significant correlation between students' frequency of watching English film and listening skill.

## B. Discussion

## 1. Students' Frequency of Watching English Film

From the data above, the data shows the distribution of questionnaire scores of 35 students. The outline of the distribution of frequency of watching English film of XI IPA II students can be seen in table 7 below.

# Table IV. 12 <br> The Distribution of the Students Frequency of Watching English Film 

| Classification | Number of the students | Percentage |
| :---: | :---: | :---: |
| Upper | 0 | $0 \%$ |
| Upper middle | 6 | $17.14 \%$ |
| Lower middle | 22 | $62.86 \%$ |
| Lower | 7 | $20 \%$ |

Based on the data shown, it could be seen that among the sample of 35 students, there were 6 students who had upper middle level or strong frequency of watching English film, 22 students had lower middle level frequency of watching English film, and 7 students had lower level. From the data above the researcher could conclude that most of students of SMA N 1 Mayong, Jepara had lower middle level frequency of watching English film. The average score was 66 . The higest score was 78 and the lowest score was 50.

## 2. Students' Listening Skill

Then, from appendix 17, the data shows the distribution of the students' scores on listening test. Below is the table of the students' score on listening test.

Table IV. 13
The Distribution of the Students' Score in Listening Test

| Classification | Number of Students | Percentage |
| :---: | :---: | :---: |
| Excellent | 0 | $0 \%$ |
| Good | 27 | $77.14 \%$ |
| Fair | 1 | $2.86 \%$ |
| Poor | 7 | $20 \%$ |

Among 35 students, 27 students or 77.14 \% got good mastery of listening skill, 1 student or $2.86 \%$ got fair mastery of listening skill, and $7(20 \%)$ students got poor mastery of listening skill. From the data above the researcher could conclude that most students of XI IA II of SMA N 1 Mayong Jepara got good mastery of listening skill. The average score was 69 . The higest score was 80 and the lowest score was 40 .

## 3. Correlation between Students' Frequency of Watching

 English Film and Listening SkillBased on the correlation analysis, $\mathrm{r}_{\mathrm{xy}}=0.587$; $\mathrm{r}_{\text {table }}$ with $\mathrm{N}=$ 35 and $\alpha=5 \%$ is 0.334 . After the test of correlation coefficient, the result shows that $t$ art $>t_{\text {table }}$. It means that $r_{x y}$ can be generalized in the population. The positive coefficient shows that the correlation between students' frequency of watching English film and listening skill is in a line. It shows that there is
a positive between two variables that is significant. The price of correlation between students' frequency of watching English film and listening skill is 0.587 ; that shows a moderate correlation of both variables. It means that to get the good listening skill, the students improve the students' frequency of watching English film. It means, if the students' frequency of watching English film is good, so the student's listening skill is also good.

The researcher has mentioned the hypothesis before from the hypothesis; the researcher has criteria of test hypothesis:

If $\mathrm{r}_{\mathrm{xy}}>\mathrm{r}_{\text {table }}$, the alternative hypothesis (Ha) is accepted and Null Hypothesis (Ho) is rejected. It means there is correlation between students' frequency of watching English film and listening skill.

If $\mathrm{r}_{\mathrm{xy}}<\mathrm{r}_{\text {table }}$ the alternative hypothesis (Ha) is rejected and Null Hypothesis (Ho) is accepted. It means there is no correlation between students' frequency of watching English film and listening skill.

## C. Limitation of The Study

The writer realizes that this research had not been optimally well. There were constrains and obstacles faced during the research process. Some limitations of this research are:

1. The research is limited. The subjects of this researh are only the eleventh graders. The focus of the research is only to know
and analyze whether there is correlation between the frequency of watching English film and students’ listening skills or not. When the same research is conducted, that the next researcher can do the research in another institution, and add the subject, so that different result will be gained.
2. Because of lack of experience and knowledge of the writer, so the implementation process of this research was less smooth. But the writer tried hard as good as possible to do this study accordance with guidance from advisors.

Considering all those limitations, there is a need to do more research about the correlation between the frequency of watching English film and listening skill

