## CHAPTER IV

## FINDINGS AND DISCUSSION

## A. Findings

## 1. Description of Data

The research has been done at SMPN 2 Kertak Hanyar. It was located on Jl. A. Yani KM. 8,200 Manarap Tengah, South Kalimantan. In this data presentation, the researcher presents and describes the result on the field research that has been done in the eight grade at SMPN 2 Kertak Hanyar. The data were about the students' reading interest of English short story, vocabulary mastery and reading comprehension.
a. Reading interest of English Short story (X1)

The data of Student's reading interest of English Short Story were collected by using questionnaire. It was conducted to 40 students of eight grade at SMPN 2 Kertak Hanyar. The result of each students were presented in the following table :

Table 4.1 The score of Students' Reading Interest of English Short Story

| No | Name | X1 | $\mathbf{X - M}$ | $\mathbf{X}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 | A | 58 | $-16,975$ | 288,1506 |
| 2 | B | 75 | 0,025 | 0,0006 |
| 3 | C | 80 | 5,025 | 25,2506 |
| 4 | D | 62 | $-12,975$ | 168,3506 |
| 5 | E | 74 | $-0,975$ | 0,9506 |
| 6 | F | 78 | 3,025 | 9,1506 |
| 7 | G | 74 | $-0,975$ | 0,9506 |
| 8 | H | 73 | $-1,975$ | 3,9006 |
| 9 | I | 70 | $-4,975$ | 24,7506 |


| 10 | J | 80 | 5,025 | 25,2506 |
| :---: | :---: | :---: | :---: | :---: |
| 11 | K | 65 | $-9,975$ | 99,5006 |
| 12 | L | 88 | 13,025 | 169,6506 |
| 13 | M | 75 | 0,025 | 0,0006 |
| 14 | N | 73 | $-1,975$ | 3,9006 |
| 15 | O | 73 | $-1,975$ | 3,9006 |
| 16 | P | 55 | $-19,975$ | 399,0006 |
| 17 | Q | 61 | $-13,975$ | 195,3006 |
| 18 | R | 73 | $-1,975$ | 3,9006 |
| 19 | S | 80 | 5,025 | 25,2506 |
| 20 | T | 80 | 5,025 | 25,2506 |
| 21 | U | 78 | 3,025 | 9,1506 |
| 22 | V | 90 | 15,025 | 225,7506 |
| 23 | W | 75 | 0,025 | 0,0006 |
| 24 | X | 85 | 10,025 | 100,5006 |
| 25 | Y | 88 | 13,025 | 169,6506 |
| 26 | Z | 73 | $-1,975$ | 3,9006 |
| 27 | A2 | 75 | 0,025 | 0,0006 |
| 28 | B2 | 60 | $-14,975$ | 224,2506 |
| 29 | C2 | 74 | $-0,975$ | 0,9506 |
| 30 | D2 | 84 | 9,025 | 81,4506 |
| 31 | E2 | 70 | $-4,975$ | 24,7506 |
| 32 | F2 | 58 | $-16,975$ | 288,1506 |
| 33 | G2 | 92 | 17,025 | 289,8506 |
| 34 | H2 | 71 | $-3,975$ | 15,8006 |
| 35 | I2 | 77 | 2,025 | 4,1006 |
| 36 | J2 | 84 | 9,025 | 81,4506 |
| 37 | K2 | 75 | 0,025 | 0,0006 |
| 38 | L2 | 76 | 1,025 | 1,0506 |
| 39 | M2 | 85 | 10,025 | 100,5006 |
| 40 | N2 | 82 | 7,025 | 49,3506 |
|  | SUM | $\mathbf{2 . 9 9 9}$ |  | $\mathbf{3 1 4 2 , 9 7 5 0}$ |

To find the students' reading interest on English Short Story generally, the researcher applied "mean" statistical formula below :

$$
\begin{aligned}
\mathrm{M}_{\mathrm{x}} & =\frac{\Sigma \mathrm{X}}{\mathrm{~N}} \\
& =\frac{2999}{40} \\
& =74.975 \\
\mathrm{SD}_{\mathrm{x}} & =\frac{\sqrt{\Sigma \mathrm{fx} 2}}{\mathrm{~N}} \\
\mathrm{SD}_{\mathrm{x}} & =\frac{\sqrt{3142,9750}}{40} \\
& =8.86
\end{aligned}
$$

Based on the result of the applied formula above, the total score was 2999 from 40 students, and mean score was 74,975

To find the students' reading interest strength on English short story, the researcher classified the data into three categories namely ; good, fair and bad by determining higest and lowest of reading interest score.

Higest of reading interest score $=\mathrm{Mx}_{\mathrm{x}}+1$. SD-x

$$
\begin{aligned}
& =74,975+1(8.86) \\
& =83.835 \\
& =84
\end{aligned}
$$

Lowest of reading interest score $=\mathrm{Mx}_{\mathrm{x}}-1 \mathrm{SD}_{\mathrm{x}}$

$$
\begin{aligned}
& =74,975-1(8.86) \\
& =66.115 \\
& =66
\end{aligned}
$$

Table 4.2 The Frequency Distribution of the Students' Reading Interest Strength of English Short Story and Classification

| Score | Frequency | Category | Persentage |
| :---: | :---: | :---: | :---: |
| .$>84$ | 6 | Good | $15.00 \%$ |
| $66-84$ | 27 | Fair | $67.50 \%$ |
| $<66$ | 7 | Bad | $17.50 \%$ |
| Total | 40 |  | $100 \%$ |

The table above described that the students' reading interest on English Short Story devided into 7 students were in bad category (17.50\%), 27 students were in fair category ( $67.50 \%$ ), 6 students were in good category ( $15.00 \%$ ). The mean score was 74,975 which showed that the students' reading interest of English Short Story was in fair level.
b. Students' Vocabulary Mastery (X2)

The data of students' Vocabulary mastery were collected by using test. It was also conducted to 40 students of eight grade at SMPN 2 Kertak Hanyar. The result were presented in the following table :

Table 4.3 The Scores of Vocabulary Mastery

| No | Name | X2 | X-M | X $^{2}$ |
| :--- | :---: | :---: | :---: | :---: |
| 1 | A | 65 | $-10,625$ | 112,8906 |
| 2 | B | 75 | $-0,625$ | 0,3906 |
| 3 | C | 85 | 9,375 | 87,8906 |
| 4 | D | 65 | $-10,625$ | 112,8906 |
| 5 | E | 75 | $-0,625$ | 0,3906 |
| 6 | F | 80 | 4,375 | 19,1406 |
| 7 | G | 75 | $-0,625$ | 0,3906 |
| 8 | H | 70 | $-5,625$ | 31,6406 |
| 9 | I | 75 | $-0,625$ | 0,3906 |


| 10 | J | 85 | 9,375 | 87,8906 |
| :---: | :---: | :---: | :---: | :---: |
| 11 | K | 65 | -10,625 | 112,8906 |
| 12 | L | 95 | 19,375 | 375,3906 |
| 13 | M | 80 | 4,375 | 19,1406 |
| 14 | N | 75 | -0,625 | 0,3906 |
| 15 | O | 75 | -0,625 | 0,3906 |
| 16 | P | 55 | -20,625 | 425,3906 |
| 17 | Q | 60 | -15,625 | 244,1406 |
| 18 | R | 75 | -0,625 | 0,3906 |
| 19 | S | 80 | 4,375 | 19,1406 |
| 20 | T | 80 | 4,375 | 19,1406 |
| 21 | U | 80 | 4,375 | 19,1406 |
| 22 | V | 85 | 9,375 | 87,8906 |
| 23 | W | 70 | -5,625 | 31,6406 |
| 24 | X | 80 | 4,375 | 19,1406 |
| 25 | Y | 85 | 9,375 | 87,8906 |
| 26 | Z | 75 | -0,625 | 0,3906 |
| 27 | A2 | 70 | -5,625 | 31,6406 |
| 28 | B2 | 60 | -15,625 | 244,1406 |
| 29 | C2 | 75 | -0,625 | 0,3906 |
| 30 | D2 | 85 | 9,375 | 87,8906 |
| 31 | E2 | 75 | -0,625 | 0,3906 |
| 32 | F2 | 65 | -10,625 | 112,8906 |
| 33 | G2 | 90 | 14,375 | 206,6406 |
| 34 | H2 | 70 | -5,625 | 31,6406 |
| 35 | I2 | 75 | -0,625 | 0,3906 |
| 36 | J2 | 85 | 9,375 | 87,8906 |
| 37 | K2 | 70 | -5,625 | 31,6406 |
| 38 | L2 | 75 | -0,625 | 0,3906 |
| 39 | M2 | 80 | 4,375 | 19,1406 |
| 40 | N2 | 85 | 9,375 | 87,8906 |
|  | SUM | 3025 |  | 2859,375 |

To find the Students' Vocabulary Mastery generally, the researcher applied "mean" statistical formula below :

$$
\begin{aligned}
\mathrm{M}_{\mathrm{x}} & =\frac{\Sigma \mathrm{X}}{\mathrm{~N}} \\
& =\frac{3025}{40} \\
& =75,625 \\
\mathrm{SD}_{\mathrm{x}} & =\frac{\sqrt{\Sigma \mathrm{fx} 2}}{\mathrm{~N}} \\
\mathrm{SD}_{\mathrm{x}} & =\frac{\sqrt{2859,375}}{40} \\
& =\sqrt{71.48} \\
& =8,45
\end{aligned}
$$

Based on the result of the applied formula above, the total score was 3025 from 40 students, and mean score was 75,625

To find the students' vocabulary mastery, the researcher classified the data into three categories namely ; good, fair and bad by determining higest and lowest on vocabulary mastery score.

Higest of vocabulary mastery score $=M_{x}+1$. SD-x

$$
\begin{aligned}
& =75,625+1(8.45) \\
& =83.835 \\
& =84.075=84
\end{aligned}
$$

Lowest of vocabulary mastery score $=\mathrm{M}_{\mathrm{x}}-1 \mathrm{SD}_{\mathrm{x}}$

$$
\begin{aligned}
& =75,625-1(8.45) \\
& =67,175 \\
& =67
\end{aligned}
$$

Table 4.4 The Frequency Distribution of The Students' Vocabulary Mastery and Classification

| Score | Frequency | Category | Persentage |
| :---: | :---: | :---: | :---: |
| .$>84$ | 9 | Good | $22.50 \%$ |
| $67-84$ | 24 | Fair | $60.00 \%$ |
| $<67$ | 7 | Bad | $17.50 \%$ |
| Total | 40 |  | $100 \%$ |

The table above described that the students' vocabulary mastery devided into 7 students were in bad category ( $17.50 \%$ ), 24 students were in fair category ( $60.00 \%$ ), 9 students were in good category ( $22.50 \%$ ). The mean score was 75,625 which showed that the students' vocabulary mastery was fair in level.
c. Students' Reading Comprehension (Y)

The data of students' reading comprehension were collected by using test. It was also conducted to 40 students of eight grade at SMPN 2 Kertak Hanyar. The result of each student was presented in the following table:

Table. 4.5 The scores of Reading Comprehension

| No | Name | Y |
| :--- | :---: | :---: |
| 1 | A | 65 |
| 2 | B | 75 |
| 3 | C | 85 |
| 4 | D | 65 |
| 5 | E | 75 |
| 6 | F | 80 |
| 7 | G | 75 |
| 8 | H | 70 |
| 9 | I | 75 |
| 10 | J | 85 |


| 11 | K | 65 |
| :---: | :---: | :---: |
| 12 | L | 95 |
| 13 | M | 80 |
| 14 | N | 75 |
| 15 | O | 75 |
| 16 | P | 55 |
| 17 | Q | 60 |
| 18 | R | 75 |
| 19 | S | 80 |
| 20 | T | 80 |
| 21 | U | 80 |
| 22 | V | 85 |
| 23 | W | 70 |
| 24 | X | 80 |
| 25 | Y | 85 |
| 26 | Z | 75 |
| 27 | A2 | 70 |
| 28 | B 2 | 60 |
| 29 | C 2 | 75 |
| 30 | D 2 | 85 |
| 31 | E 2 | 70 |
| 32 | F 2 | 65 |
| 33 | G 2 | 90 |
| 34 | H2 | 70 |
| 35 | I 2 | 75 |
| 36 | J 2 | 80 |
| 37 | K2 | 70 |
| 38 | L 2 | 75 |
| 39 | M 2 | 80 |
| 40 | N2 | 80 |
|  | SUM | 3010 |
|  |  |  |

To identified the students' reading comprehension, the researcher classified the data into five categories namely very foor, poor, fair, good and excellent. The classifications of the categories were seen in the following table :

Table 4.6. The Frequency Distribution of The Students Test Result and The Classification

| $\mathbf{N}$ | Score | Frequency | Percentage | Category |
| :---: | :--- | :---: | :---: | :---: |
| 1 | $0-49$ | 0 students | $0 \%$ | Poor |
| 2 | $50-59$ | 1 students | $2.50 \%$ | Low |
| 3 | $60-69$ | 6 students | $15.00 \%$ | Fair |
| 4 | $70-79$ | 17 students | $42.50 \%$ | Good |
| 5 | $80-100$ | 16 students | $40.00 \%$ | Excellent |
|  | Sum | 40 students | $100 \%$ |  |

The table above showed that the students' reading comprehension based on the categories were no students in poor category, 1 students were in low category ( $2.50 \%$ ), 6 students were in fair category ( $15.00 \%$ ), 17 students were in good category (42.50\%), and 16 students were in excellent category (40.00\%).

To find the students' reading comprehension, the researcher applied " mean " statistical formula below :

$$
\begin{aligned}
\mathrm{M} & =\frac{\sum \mathrm{Y}}{\mathrm{~N}} \\
& =\frac{3010}{40} \\
& =75.25
\end{aligned}
$$

Based on the result the total score was 3010 from 40 students, and the mean score was 75,25 . The mean 75,25 which showed that the students' reading comprehension in good level.

## 2. Data Analysis

a. The next step in this research was finding the $\mathrm{X} 1 \mathrm{Y}, \mathrm{X}^{2}$, and $\mathrm{Y}^{2}$ of the data, which can be seen in table:

Table 4.7. Data Analysis Students' Reading Interest of English Short Story with Reading Comprehension.

| No | Name | $\mathbf{X 1}$ | $\mathbf{Y}$ | $\mathbf{X 1 Y}$ | $\mathbf{X 1}^{\mathbf{2}}$ | $\mathbf{Y}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A | 58 | 65 | 3770 | 3364 | 4225 |
| 2 | B | 75 | 75 | 5625 | 5625 | 5625 |
| 3 | C | 80 | 85 | 6800 | 6400 | 7225 |
| 4 | D | 62 | 65 | 4030 | 3844 | 4225 |
| 5 | E | 74 | 75 | 5550 | 5476 | 5625 |
| 6 | F | 78 | 80 | 6240 | 6084 | 6400 |
| 7 | G | 74 | 75 | 5550 | 5476 | 5625 |
| 8 | H | 73 | 70 | 5110 | 5329 | 4900 |
| 9 | I | 70 | 75 | 5250 | 4900 | 5625 |
| 10 | J | 80 | 85 | 6800 | 6400 | 7225 |
| 11 | K | 65 | 65 | 4225 | 4225 | 4225 |
| 12 | L | 88 | 95 | 8360 | 7744 | 9025 |
| 13 | M | 75 | 80 | 6000 | 5625 | 6400 |
| 14 | N | 73 | 75 | 5475 | 5329 | 5625 |
| 15 | O | 73 | 75 | 5475 | 5329 | 5625 |
| 16 | P | 55 | 55 | 3025 | 3025 | 3025 |
| 17 | Q | 61 | 60 | 3660 | 3721 | 3600 |
| 18 | R | 73 | 75 | 5475 | 5329 | 5625 |
| 19 | S | 80 | 80 | 6400 | 6400 | 6400 |
| 20 | T | 80 | 80 | 6400 | 6400 | 6400 |
| 21 | U | 78 | 80 | 6240 | 6084 | 6400 |
| 22 | V | 90 | 85 | 7650 | 8100 | 7225 |
| 23 | W | 75 | 70 | 5250 | 5625 | 4900 |
| 24 | X | 85 | 80 | 6800 | 7225 | 6400 |
| 25 | Y | 88 | 85 | 7480 | 7744 | 7225 |
| 26 | Z | 73 | 75 | 5475 | 5329 | 5625 |
| 27 | A2 | 75 | 70 | 5250 | 5625 | 4900 |
|  |  |  |  |  |  |  |


| 28 | B2 | 60 | 60 | 3600 | 3600 | 3600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29 | C2 | 74 | 75 | 5550 | 5476 | 5625 |
| 30 | D2 | 84 | 85 | 7140 | 7056 | 7225 |
| 31 | E2 | 70 | 70 | 4900 | 4900 | 4900 |
| 32 | F2 | 58 | 65 | 3770 | 3364 | 4225 |
| 33 | G2 | 92 | 90 | 8280 | 8464 | 8100 |
| 34 | H2 | 71 | 70 | 4970 | 5041 | 4900 |
| 35 | I2 | 77 | 75 | 5775 | 5929 | 5625 |
| 36 | J2 | 84 | 80 | 6720 | 7056 | 6400 |
| 37 | K2 | 75 | 70 | 5250 | 5625 | 4900 |
| 38 | L2 | 76 | 75 | 5700 | 5776 | 5625 |
| 39 | M2 | 85 | 80 | 6800 | 7225 | 6400 |
| 40 | N2 | 82 | 80 | 6560 | 6724 | 6400 |
|  | N $=\mathbf{4 0}$ | $\mathbf{2 9 9 9}$ | $\mathbf{3 0 1 0}$ | $\mathbf{2 2 8 3 8 0}$ | $\mathbf{2 2 7 9 9 3}$ | $\mathbf{2 2 9 2 5 0}$ |

Before using Pearson product moment, the researcher does prerequisite test (normality test and linearity test) by using SPSS. These were the results of normality test and linearity test.

Table 4.8 Result of Normality Test

| Variable | Significance | Criteria |
| :---: | :---: | :---: |
| X1 | 0,153 | Normal |
| X2 | 0,211 | Normal |
| Y | 0,276 | Normal |

Based on the result, it showed that the value of variable X1 $(0,153)$, the value of variable $\mathrm{X} 2(0,211)$ and the value of variable $\mathrm{Y}(0,276)$ were higher than 0,05 . So, it can be concluded that the data were normal. For more information about the result, it can be seen in the appendix 5 .

Table 4.9 Result of Linearity Test

| Variable | Significance | Criteria |
| :---: | :---: | :---: |
| $\mathrm{X} 1 * \mathrm{Y}$ | 0,423 | Linear |
| $\mathrm{X} 2 * \mathrm{Y}$ | 0,755 | Linear |

The result of linearity test between Students' reading interest of English short story (X1) and vocabulary mastery (X2) and reading comprehension (Y) above shows that the significance value $\mathrm{X} 1 \mathrm{Y}=0,423$ and $\mathrm{X} 2 \mathrm{Y}=0,755$ which was higher than 0,05 . Therefore, it can be concluded that variable $\mathrm{X} 1, \mathrm{X} 2$ and variable Y was linear. For more information about the result, it can be seen in the appendix 6.

Because of the data were normal and linear, the researcher can use Pearson product moment formula in order to identified the correlation between reading interest of English short story, vocabulary mastery and their reading comprehension of eight grade at SMPN 2 Kertak Hanyar.

Then next step was analyzing the data by using Pearson number correlation formula. The formula was:

$$
\mathrm{r}_{\mathrm{x} 1 \mathrm{y}}=\frac{\mathrm{N} \sum \mathrm{X} 1 \mathrm{Y}-\left(\sum \mathrm{X} 1\right)\left(\sum \mathrm{Y}\right)}{\sqrt{\left[\mathrm{N} \sum \mathrm{X} 1^{2}-\left(\sum \mathrm{X} 1\right)^{2}\right]\left[\mathrm{N} \sum \mathrm{Y}^{2}-\left(\sum \mathrm{Y}\right)^{2}\right]}}
$$

Where:
$\mathrm{r}_{\mathrm{xly}}$ : Coefficient correlation between correlated variables x1 and y
N : The total number of the students
X1 : Students' reading interest on English short story
Y : Students' reading comprehension

$$
\begin{aligned}
\mathrm{r}_{\mathrm{x} 1 \mathrm{y}} & =\frac{\mathrm{N} \sum \mathrm{X} 1 \mathrm{Y}-\left(\sum \mathrm{X} 1\right)\left(\sum \mathrm{Y}\right)}{\sqrt{\left[\mathrm{N} \sum \mathrm{X} 1^{2}-\left(\sum \mathrm{X} 1\right)^{2}\right]\left[\mathrm{N} \sum \mathrm{Y}^{2}-\left(\sum \mathrm{Y}\right)^{2}\right]}} \\
& =\frac{40 \times 228380-(2999)(3010)}{\sqrt{\left\{40 \times 227993-2999^{2}\right\}\left\{40 \times 229250-3010^{2}\right\}}} \\
& =\frac{9135200-9026990}{\sqrt{\{9119720-8994001\}\{9170000-9060100\}}} \\
& =\frac{108210}{\sqrt{125719 \times 109900}} \\
& =\frac{108210}{\sqrt{13816518100}} \\
& =\frac{108210}{117543.7} \\
& =\mathbf{0 , 9 2 0 5}
\end{aligned}
$$

b. The next step in this research was finding the $\mathrm{X} 2 \mathrm{Y}, \mathrm{X}^{2}$, and $\mathrm{Y}^{2}$ of the data. They were seen in the following table:

Table 4.10. Data Analysis Students' Vocabulary Mastery with Reading

## Comprehension.

| No | Name | $\mathbf{X 2}$ | $\mathbf{Y}$ | $\mathbf{X 2 Y}$ | $\mathbf{X 2}^{\mathbf{2}}$ | $\mathbf{Y}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A | 65 | 65 | 4225 | 4225 | 4225 |
| 2 | B | 75 | 75 | 5625 | 5625 | 5625 |
| 3 | C | 85 | 85 | 7225 | 7225 | 7225 |
| 4 | D | 65 | 65 | 4225 | 4225 | 4225 |
| 5 | E | 75 | 75 | 5625 | 5625 | 5625 |
| 6 | F | 80 | 80 | 6400 | 6400 | 6400 |
| 7 | G | 75 | 75 | 5625 | 5625 | 5625 |
| 8 | H | 70 | 70 | 4900 | 4900 | 4900 |
| 9 | I | 75 | 75 | 5625 | 5625 | 5625 |
| 10 | J | 85 | 85 | 7225 | 7225 | 7225 |
| 11 | K | 65 | 65 | 4225 | 4225 | 4225 |
| 12 | L | 95 | 95 | 9025 | 9025 | 9025 |
| 13 | M | 80 | 80 | 6400 | 6400 | 6400 |


| 14 | N | 75 | 75 | 5625 | 5625 | 5625 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15 | O | 75 | 75 | 5625 | 5625 | 5625 |
| 16 | P | 55 | 55 | 3025 | 3025 | 3025 |
| 17 | Q | 60 | 60 | 3600 | 3600 | 3600 |
| 18 | R | 75 | 75 | 5625 | 5625 | 5625 |
| 19 | S | 80 | 80 | 6400 | 6400 | 6400 |
| 20 | T | 80 | 80 | 6400 | 6400 | 6400 |
| 21 | U | 80 | 80 | 6400 | 6400 | 6400 |
| 22 | V | 85 | 85 | 7225 | 7225 | 7225 |
| 23 | W | 70 | 70 | 4900 | 4900 | 4900 |
| 24 | X | 80 | 80 | 6400 | 6400 | 6400 |
| 25 | Y | 85 | 85 | 7225 | 7225 | 7225 |
| 26 | Z | 75 | 75 | 5625 | 5625 | 5625 |
| 27 | A 2 | 70 | 70 | 4900 | 4900 | 4900 |
| 28 | B 2 | 60 | 60 | 3600 | 3600 | 3600 |
| 29 | C 2 | 75 | 75 | 5625 | 5625 | 5625 |
| 30 | D 2 | 85 | 85 | 7225 | 7225 | 7225 |
| 31 | E 2 | 75 | 70 | 5250 | 5625 | 4900 |
| 32 | F 2 | 65 | 65 | 4225 | 4225 | 4225 |
| 33 | G 2 | 90 | 90 | 8100 | 8100 | 8100 |
| 34 | H 2 | 70 | 70 | 4900 | 4900 | 4900 |
| 35 | I 2 | 75 | 75 | 5625 | 5625 | 5625 |
| 36 | J2 | 85 | 80 | 6800 | 7225 | 6400 |
| 37 | K2 | 70 | 70 | 4900 | 4900 | 4900 |
| 38 | L 2 | 75 | 75 | 5625 | 5625 | 5625 |
| 39 | M2 | 80 | 80 | 6400 | 6400 | 6400 |
| 40 | N2 | 85 | 80 | 6800 | 7225 | 6400 |
|  | N=40 | $\mathbf{3 0 2 5}$ | $\mathbf{3 0 1 0}$ | $\mathbf{2 3 0 4 0 0}$ | $\mathbf{2 3 1 6 2 5}$ | $\mathbf{2 2 9 2 5 0}$ |

Before using pearson product moment, the researcher does prerequisite test (normality test and linearity test) by using SPSS. These were the results of normality test and linearity test.

Table 4.11 Result of Normality Test

| Variable | Significance | Criteria |
| :---: | :---: | :---: |
| X1 | 0,153 | Normal |
| X2 | 0,211 | Normal |
| Y | 0,276 | Normal |

Based on the result, it shows that the value of variable X1 $(0,153)$, the value of variable X2 $(0,211)$ and the value of variable $\mathrm{Y}(0,276)$ were higher than 0,05 . So, it can be concluded that the data were normal. For more information about the result, it can be seen in the appendix 5 .

Table 4.12 Result of Linearity Test

| Variable | Significance | Criteria |
| :---: | :---: | :---: |
| $\mathrm{X} 1 * \mathrm{Y}$ | 0,423 | Linear |
| $\mathrm{X} 2 * \mathrm{Y}$ | 0,755 | Linear |

The result of linearity test between Students' reading interest of English short story (X1) and vocabulary mastery (X2) and reading comprehension (Y) above shows that the significance value $\mathrm{X} 1 \mathrm{Y}=0,423$ and $\mathrm{X} 2 \mathrm{Y}=0,755$ which was higher than 0,05 . Therefore, it can be concluded that variable $\mathrm{X} 1, \mathrm{X} 2$ and variable Y was linear. For more information about the result, it can be seen in the appendix 6.

Because of the data were normal and linear, the researcher can use Pearson product moment formula in order to identified the correlation between reading interest of English short story, vocabulary mastery and their reading comprehension of eight grade at SMPN 2 kertak hanyar.

Then, the next step was analyzing the data by using Pearson number correlation formula. The formula was:

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

Where:
$\mathrm{r}_{\mathrm{x} 2 \mathrm{y}} \quad$ : Coefficient correlation between correlated variables x2 and y
$\mathrm{N} \quad$ : The total number of the students
X2 : Students' vocabulary mastery
Y : Students' reading comprehension

$$
\begin{aligned}
\mathrm{r}_{\mathrm{x} 2 \mathrm{y}} & =\frac{\mathrm{N} \sum \mathrm{X} 2 \mathrm{Y}-\left(\sum \mathrm{X} 2\right)\left(\sum \mathrm{Y}\right)}{\sqrt{\left[\mathrm{N} \mathrm{XX} 2^{2}-\left(\sum \mathrm{X} 2\right)^{2}\right]\left[\mathrm{N} \sum \mathrm{Y}^{2}-\left(\sum \mathrm{Y}\right)^{2}\right]}} \\
& =\frac{40 \times 230400-(3025)(3010)}{\sqrt{\left\{40 \times 231625-3025^{2}\right\}\left\{40 \times 229250-3010^{2}\right\}}} \\
& =\frac{9216000-9105250}{\sqrt{\{9265000-9150625\}\{9170000-9060100\}}} \\
& =\frac{110750}{\sqrt{114375 \times 109900}} \\
& =\frac{110750}{\sqrt{12569812500}} \\
& =\frac{110750}{112115.175} \\
& =\mathbf{0 , 9 8 7 8}
\end{aligned}
$$

c. The next step in the research was finding the $\mathrm{X} 1, \mathrm{X} 2, \mathrm{X} 1 \mathrm{X} 2, \mathrm{X}^{2}$, and $Y^{2}$ of the data. They were seen in the following table:

Table 4.13. Data Analysis Students' Reading Interest of English Short Story,
Vocabulary Mastery and Reading Comprehension.

| No | Name | X1 | X2 | X1X2 | X1 ${ }^{2}$ | X2 ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A | 58 | 65 | 3770 | 3364 | 4225 |
| 2 | B | 75 | 75 | 5625 | 5625 | 5625 |
| 3 | C | 80 | 85 | 6800 | 6400 | 7225 |
| 4 | D | 62 | 65 | 4030 | 3844 | 4225 |
| 5 | E | 74 | 75 | 5550 | 5476 | 5625 |
| 6 | F | 78 | 80 | 6240 | 6084 | 6400 |
| 7 | G | 74 | 75 | 5550 | 5476 | 5625 |
| 8 | H | 73 | 70 | 5110 | 5329 | 4900 |
| 9 | I | 70 | 75 | 5250 | 4900 | 5625 |
| 10 | J | 80 | 85 | 6800 | 6400 | 7225 |
| 11 | K | 65 | 65 | 4225 | 4225 | 4225 |
| 12 | L | 88 | 95 | 8360 | 7744 | 9025 |
| 13 | M | 75 | 80 | 6000 | 5625 | 6400 |
| 14 | N | 73 | 75 | 5475 | 5329 | 5625 |
| 15 | O | 73 | 75 | 5475 | 5329 | 5625 |
| 16 | P | 55 | 55 | 3025 | 3025 | 3025 |
| 17 | Q | 61 | 60 | 3660 | 3721 | 3600 |
| 18 | R | 73 | 75 | 5475 | 5329 | 5625 |
| 19 | S | 80 | 80 | 6400 | 6400 | 6400 |
| 20 | T | 80 | 80 | 6400 | 6400 | 6400 |
| 21 | U | 78 | 80 | 6240 | 6084 | 6400 |
| 22 | V | 90 | 85 | 7650 | 8100 | 7225 |
| 23 | W | 75 | 70 | 5250 | 5625 | 4900 |
| 24 | X | 85 | 80 | 6800 | 7225 | 6400 |
| 25 | Y | 88 | 85 | 7480 | 7744 | 7225 |
| 26 | Z | 73 | 75 | 5475 | 5329 | 5625 |
| 27 | A2 | 75 | 70 | 5250 | 5625 | 4900 |
| 28 | B2 | 60 | 60 | 3600 | 3600 | 3600 |
| 29 | C2 | 74 | 75 | 5550 | 5476 | 5625 |
| 30 | D2 | 84 | 85 | 7140 | 7056 | 7225 |
| 31 | E2 | 70 | 75 | 5250 | 4900 | 5625 |
| 32 | F2 | 58 | 65 | 3770 | 3364 | 4225 |


| 33 | G2 | 92 | 90 | 8280 | 8464 | 8100 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34 | H2 | 71 | 70 | 4970 | 5041 | 4900 |
| 35 | I2 | 77 | 75 | 5775 | 5929 | 5625 |
| 36 | J2 | 84 | 85 | 7140 | 7056 | 7225 |
| 37 | K2 | 75 | 70 | 5250 | 5625 | 4900 |
| 38 | L2 | 76 | 75 | 5700 | 5776 | 5625 |
| 39 | M2 | 85 | 80 | 6800 | 7225 | 6400 |
| 40 | N2 | 82 | 85 | 6970 | 6724 | 7225 |
|  | N=40 | $\mathbf{2 9 9 9}$ | $\mathbf{3 0 2 5}$ | $\mathbf{2 2 9 5 6 0}$ | $\mathbf{2 2 7 9 9 3}$ | $\mathbf{2 3 1 6 2 5}$ |

$$
\mathrm{r}_{\mathrm{X} 1 \mathrm{x} 2}=\frac{\mathrm{N} \sum \mathrm{X} 1 \mathrm{X} 2-\left(\sum \mathrm{X} 1\right)\left(\sum \mathrm{X} 2\right)}{\sqrt{\left[\mathrm{N} \sum \mathrm{X} 1^{2}-\left(\sum \mathrm{X} 1\right)^{2}\right]\left[\mathrm{N} \sum \mathrm{X} 2^{2}-\left(\sum \mathrm{X} 2\right)^{2}\right]}}
$$

Where:
$\mathrm{r}_{\mathrm{x} 1 \times 2}$ : Coefficient correlation between correlated variable x 1 and x 2
$\mathrm{N} \quad$ : The total number of the students

X1 : Students' reading interest of English short story
X2 : Students' vocabulary mastery

$$
\begin{aligned}
\mathrm{r}_{\mathrm{X} 1 \mathrm{x} 2} & =\frac{\mathrm{N} \sum \mathrm{X} 1 \mathrm{X} 2-\left(\sum \mathrm{X} 1\right)\left(\sum \mathrm{X} 2\right)}{\sqrt{\left[\mathrm{N} \mathrm{XX} 1^{2}-\left(\sum \mathrm{X} 1\right)^{2}\right]\left[\mathrm{N} \sum \mathrm{X}^{2}-\left(\sum \mathrm{X} 2\right)^{2}\right]}} \\
& =\frac{40 \times 229560-(2999)(3025)}{\sqrt{\left\{40 \times 227993-2999^{2}\right\}\left\{40 \times 231625-3025^{2}\right\}}} \\
& =\frac{9182400-9071975}{\sqrt{\{9119720-8994001\}\{9265000-9150625\}}} \\
& =\frac{110425}{\sqrt{125719 \times 114375}} \\
& =\frac{110425}{\sqrt{14379110625}} \\
& =\frac{110425}{119912.929} \\
& =0,9209
\end{aligned}
$$

This formula to the correlation students' reading interest of English short story, vocabulary mastery and reading comprehension

$$
\begin{aligned}
R x 1 x 2 y & =\sqrt{\frac{r^{2} \mathrm{yx} 1+\mathrm{r}^{2} \mathrm{yx} 2-2 \mathrm{ryx} 1 . \mathrm{ryx} 2 . \mathrm{rx} 1 \mathrm{x} 2}{1-\mathrm{r}^{2} \mathrm{x} 1 \mathrm{x} 2}} \\
& =\sqrt{\frac{0,9205^{2}+0.9878^{2}-20,9205.0,9878.0,9209}{1-0,9209^{2}}} \\
& =\sqrt{\frac{0.847+0.976-20.837}{1-0,848}} \\
& =\sqrt{\frac{1,823-1,674}{0.152}} \\
& =\sqrt{\frac{0,149}{0.152}} \\
& =\sqrt{0.980} \\
& =\mathbf{0 , 9 8 9}
\end{aligned}
$$

After finding the result of the calculation by using correlation formula, the researcher re-calculates the data by using the Statistical Package for the Social Science (SPPSS) windows program in order to confirm the calculation result, and the result were $X 1 Y=0,9205, X 2 Y=$ 0,9878, XIX2Y $=0,9899$. The result from the SPSS was seen in the following table:

Table 4.14. SPSS Correlation result

| Correlations |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | X1 | X2 | Y |
| X1 | Pearson Correlation | 1 | ,921** | ,921** |
|  | Sig. (2-tailed) |  | ,000 | ,000 |
|  | N | 40 | 40 | 40 |
| X2 | Pearson Correlation | ,921** | 1 | ,988** |
|  | Sig. (2-tailed) | ,000 |  | ,000 |
|  | N | 40 | 40 | 40 |
| Y | Pearson Correlation | ,921** | ,988** | 1 |
|  | Sig. (2-tailed) | ,000 | ,000 |  |
|  | N | 40 | 40 | 40 |

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

Based on the result of the calculation above, it was identifiedn that RXIY was 0,921, RX2Y was 0,988, RX1X2Y was 1 . To test the hypothesis of the research there were two steps that the researcher have performed. Firstly, the researcher consulted to the table of standard classification of correlation degree below:

Table 4. 15. Standard Categories of "r" Product Moment Value

| The value of "r" <br> Pearson product <br> moment $\left(r_{x y}\right)$ | Interpretation |
| :---: | :--- |
| $0,80-1,00$ | There was a very strong correlation between variable X <br> and variable Y |
| $0,60-0,80$ | There was a strong correlation between variable X and <br> variable Y |
| $0,40-0,60$ | There was a fair or medium correlation between variable <br> X and variable Y |
| $0,20-0,40$ | There was a low correlation between variable X and <br> variable Y |
| $0,00-0,20$ | There was a correlation between variable X and variable <br> Y, but the correlation was so very low that the <br> correlation was disregarded, or, in other words, there <br> was no correlation between variable X and variable Y. |

Secondly, in order to confirm the first step, the researcher consulted to the table of " $r$ " value, then found out that the " $r$ " value for $\mathrm{N}=38$ was 0,320 for $5 \%$ significance degree. It was clear that $r_{o}>r_{t}$.
$r_{x l y}$ or $r_{o}=0,921$
$r_{x 2 y}$ or $r_{o}=0,988$
$r_{x \mid x 2 y}$ or $r_{o}=1,00$
$r_{t} \quad=0,320$
$r_{x l y}$ or $r_{o}>r_{t}$ and $r_{x 2 y}$ or $r_{o}>r_{t}$ and $r_{x l x 2 y}$ or $r_{o}>r_{t}$
It means that the hypothesis null (Ho) was denied and hypothesis alternative (Ha) was accepted. Therefore, the conclusion was that there were the correlation between students' reading interest of English short story, vocabulary mastery and their reading comprehension.

## B. Discussion

Based on the findings, the researcher found some information about the correlation between students' reading interest of English short story, vocabulary mastery and their reading comprehension of eight grade at SMPN 2 Kertak Hanyar.

First, the students' reading interest of English short story, 7 students were in bad category (17.50\%), 27 students were in fair category ( $67.50 \%$ ), 6 students were in good category ( $15.00 \%$ ). The mean score was 74,975 showed that the students' reading interest of English short story was fair level.

Interest was a tendency and a high desire or a desire for something, for example, students of eight grade at SMPN 2 Kertak Hanyar is said to be enough, because they have a great interest in short stories in English (more interesting) will focus more attention than others. An intensive concentration will enable students to study harder and achieve what they want.

Second, the vocabulary mastery, 7 students were in bad category ( $17.50 \%$ ), 24 students were in fair category ( $60.00 \%$ ), 9 students were in good category $(22.50 \%)$. The mean score was 75,625 showed that the students' vocabulary mastery was in fair level.

Vocabulary becomes one of the most meaningful aspects because all aspects will always use the vocabulary in it. Vocabulary mastery becomes the basis of a reciting reader. A student is required to have many vocabulary to be proficient in language. Therefore, by mastering vocabulary students were able to develop power and understanding. Vocabulary mastery of students eight grade at SMPN 2 Kertak Hanyar is enough, because they are able to understand the reading of short stories in English.

Third, the reading comprehension, there were no students who got score less than 50 (poor category). Furthermore, there were 1 students ( $2.50 \%$ ) who got score between 50 and 59 (low category); 6 students ( $15.00 \%$ ) who got score between 60 and 69 ( fair category); 17 students
( $42.50 \%$ ) who got score between 70 and 79 (good category); and 16 students ( $40.00 \%$ ) who got score between 80 and 100 (excellent category).

Morever, based on the mean of the students' reading comprehension scores which was 75,25 it can be concluded that reading comprehension on eight grade at SMPN 2 Kertak Hanyar was in good category.

With interest and vocabulary sufficiently, it will affect reading comprehension, as well as reading comprehension of eight grade at SMPN 2 Kertak Hanyar is said to be good.

The researcher also found the information about whether there was a correlation or not between students' reading interest of English short story, vocabulary mastery and their reading comprehension of eight grade at SMPN 2 Kertak Hanyar. Based on the findings, the value of Pearson correlation ( $\mathrm{r}_{\mathrm{x} 1 \mathrm{y}} \mathrm{r}_{\mathrm{x} 2 \mathrm{y}} ; \mathrm{r}_{\mathrm{x} 1 \times 2 \mathrm{y}}$ ) between reading interest of English short story, vocabulary mastery and their reading comprehension were 0,$921 ; 0,988$; 1,00 and the value of $\mathrm{r}_{\text {table }}$ at significant value 0,05 with $\mathrm{df}=38$ was 0.320 . So, it can be concluded that $r_{x 1 x} ; r_{x 2 y} ; r_{x 1 \times 2 y}>r_{\text {table }}$ which means there were correlation and Ha was accepted, Ho was rejected. It means there was a correlation interest of English short story, vocabulary mastery and their reading comprehension.

In conclusion, based on the findings of this research, the researcher found that there was high correlation between students' reading interest of

English short story, vocabulary mastery and their reading comprehension of eight grade at SMPN 2 Kertak Hanyar.

In addition, result indicates that showed positive engagement towards students' reading interest of English short story, vocabulary mastery and reading comprehension. Interest was defined as interaction between a person and an object within the environment. (Magner: 2012, p.3) In other words, there was something happened which made a person and an object interrelated each other, like interest of English short story and reading comprehension. For example, reading story, he may be enjoy and happy doing it. There must be something which makes him do that kind of activity. They stated that interest was a nonemotional state of motivation or attention. (Silvia: 2006, p.13).

Richard and Renandya (2002, p.225) states that vocabulary was a core component of language proficiency and provides much of the bass for how well learners speak, listen, read and write. The contribution of a student's vocabulary knowledge to his reading comprehension has been an acceptable finding in reading research. Moreover, the prominent role of vocabulary in reading comprehension has been documented for EnglishNative speaker, ELs and students who were second language learners of language other than English (Taboada: 2012, p.902).

