

CHAPTER IV

RESULT OF RESEARCH AND DISCUSSION

This chapter discusses about presentation of data, hypothesis testing, and discussion of findings. The data is the result of students' vocabulary score and reading score which the researcher got. The hypothesis testing consist of hypothesis whether the hypothesis is received or rejected. The last is discussion of finding which explain about the result of research.

A. Presentation of the Data

After collecting all of the data, the next step that the researcher present the presentation of the data in the form of the result of study. The data that will be described is the data that the researcher got during the research process of the second grade of IPS students of MAN Pamekasan. The Data that will be described is the result of both tests, especially vocabulary mastery test and reading comprehension on narrative text. The tests is as a method to collect the data related to variable X of this research (students' vocabulary mastery in the second grade of IPS students of MAN Pamekasan) and variable Y of this research (students' reading comprehension on narrative text at second grade of IPS students of MAN Pamekasan).

Before the researcher gave the tests to the students, the researcher examinee the reliability and validity of test. The explanation as follow:

1. Validity and Reliability of Vocabulary Test

a) Validity of the Vocabulary Test

Validity is the most important consideration in developing, measuring, and evaluating instrument used a test. To check the validity of the test, the first step that the researcher did is identifying the test that the researcher used. The researcher identified whether the test is appropriate to the students or not. The test is used in this research based on the material in the course outline and handbook the material in the previous semester. Therefore, the researcher can make the test easily.

The next step is looking for the evidence of validity. The researcher used content validity gain the validity of the instrument. As stated by Donald Ary that the content validity like to look at the material covered the wording of the question and the adequacy of the sample of items to measure the achievement in question.¹ The researcher made the test suited for the material given in the previous semester. So, the test that the researcher gave to the students is absolutely valid.

b) Reliability of Vocabulary Test

In checking the reliability of the instrument used at this research, the researcher used alpha formula. If the result of coefficient reliability shows the positive significance, the instrument is reliable. As stated by Syofyan Siregar that the criteria of the instrument called as reliable using this

¹Donald Ary, Lucy Cheser Jacobs, and Chris Sorensen, *Introduction to Research in Education*, eighth (Wadsworth Cengage Learning, 2010), 226.

technique, when coefficient of reliability (r_{11}) $> 0,60$.² The table below is the result of reliability of the test:

Tabel 4.1: Reliability Statistics

Cronbach's Alpha	N of Items
0,780	25

Source: Output SPSS 20

From the table above, it is known that Cronbach Alpha 0,780 or $> 0,60$.

Therefore, the instrument is reliable.

2. Validity and Reliability of Reading Comprehension

a) Validity of Reading Test

Validity is an important quality of any test. In this case, the test is to measure how about the students' reading comprehension on narrative text based on their vocabulary mastery. To check the validity of the test, the first step that the researcher did is identifying the test that the researcher used. The researcher identified whether the test is appropriate for the students or not. The researcher asked the course outline about narrative in this semester and limits the material. By the course outline, it can make the researcher easily in making the test. The form of this test is same as the first one.

The next step is looking for the evidence of validity. The same theory as the first test, Donald Ary said that the content validity like to look at the material covered the wording of the question and the adequacy of the sample of items to measure the achievement in question.³ The researcher

²Syofian Siregar, *Metode Penelitian Kuantitatif* (Jakarta: Kencana Prenadamedia Group, 2014), 57.

³Donald Ary, Lucy Cheser Jacobs, and Sorensen, *Introduction to Research in Education*, 226.

made the test suited for the material given in the previous semester. So, the test that the researcher gave to the students is absolutely valid.

b) Reliability of Reading Test

Besides having high validity, a test must also have a high reliability. In checking the reliability of the instrument used at this research, the researcher used alpha formula. If the result of coefficient reliability shows the positive significance, the instrument is reliable. As stated by Syofyan Siregar that the criteria of the instrument called as reliable using this technique, when coefficient of reliability (r_{11}) > 0,60.⁴ The table below is the result of reliability of the test:

Tabel 4.2: Reliability Statistics

Cronbach's Alpha	N of Items
0,788	25

Source: Output SPSS 20

From the table above, it is known that alpha cronbach 0,788 or > 0,60.

Therefore, the instrument is reliable.

3. The Result of the Test Data

The researcher conducted both tests in one meeting for one class, because it needs a long time. The test conducted on 22 January 2020 for IPS 1 class and 23 January 2020 for IPS 2 class.

a. The Result of Vocabulary Mastery Test

Test is the major instrument in this research. It means that the data which are obtained from the test instrument will be analyzed by statistical method.

⁴Siregar, *Metode Penelitian Kuantitatif*, 57.

Before analyzing, the researcher present the data, especially the students score for vocabulary mastery test.

Vocabulary mastery test is used to collect the data related to variable X of this research (students' vocabulary mastery in the second grade of IPS students' of MAN Pamekasan). The test is used to measure the students' vocabulary mastered by second grade of IPS students of MAN Pamekasan. The researcher asked the course outline for the previous semester or class. By using course outline and hand books the researcher could be easier to make a test. The form of the test is multiple choices which have been provided by the researcher. The test consists of 25 item questions. The score in each item is 4 point for the correct answer and 0 point for wrong answer. So, when the students answered correctly, they will get 100 point. The students' vocabulary mastery score are as below:

Table 4.3: The Result of Test of Vocabulary (X)

Student Number	Score (X)
1	76
2	60
3	48
4	60
5	40
6	56
7	68
8	88
9	56
10	44
11	28
12	64
13	84
14	48
15	28
16	20
17	60
18	24

19	60
20	44
21	20
22	36
23	36
24	28
25	52
26	32
27	92
28	36
29	68
30	36
31	36
32	44
33	80
34	36
35	48
36	44
37	72
38	24
39	60
40	68
41	36
42	60
43	64
44	68
45	36
46	72
47	60
48	32
49	72
50	72
51	72
52	72
53	80
54	72
55	80
56	32
57	84
58	68
N = 58	$\sum X = 3.068$

Based on the table above, it is known that the students are fifty eight. The first column is a number of students and the second column is their score for

vocabulary mastery test. Their score is variance. The lowest score is 20 and the highest score is 92. The student who gets the best score is one student and the student who gets the lowest score are two students.

b. The Result of Reading Comprehension Test on Narrative Text

The researcher took students' reading comprehension on narrative text as dependent variable (variable Y). The researcher got the data of student's reading comprehension on narrative text score from the test. The test is to measure how about the students' reading comprehension based on their vocabulary mastery. The researcher asked the course outline about narrative text and limits the material. The material was only about narrative text. By the course outline, it can make the researcher easily in making the test.

The form of the test is essay test consist of fill in the blank and essay which have been provided by the researcher. The test consists of 25 item questions. The score in each item is 4 point for the correct answer and 0 point for wrong answer. So, when the students answered correctly, they will get 100 point. The students' vocabulary mastery score are as below:

Table 4.4: The Result of Test of Reading Comprehension (Y)

Students Number	Score (Y)
1	68
2	60
3	60
4	60
5	32
6	32
7	60
8	84
9	32
10	60
11	32
12	64
13	72
14	44
15	40
16	44
17	92
18	28
19	40
20	52
21	40
22	28
23	32
24	32
25	76
26	56
27	96
28	72
29	80
30	40
31	40
32	72
33	84
34	32
35	52
36	56
37	60
38	68
39	64
40	64
41	48
42	16
43	36

44	64
45	28
46	76
47	76
48	80
49	84
50	72
51	88
52	68
53	84
54	72
55	88
56	60
57	80
58	68
N = 58	$\sum Y = 3.388$

Based on the table above, it is known that the students are fifty eight. The first column is a number of students and the second column is their score for determining semantics relation ability test. Their score is variance. The lowest score is 16 and the highest score is 96. The student who gets the best score is one student and the student who gets the lowest score is one students.

4. The Result of Documentation

As the researcher stated in the previous chapter that documentation is collecting data concerning variable from document, transcript, book, agenda, magazine and the others. They are as follow:

- a. Students' name list (see on Appendix)
- b. RPP (see on Appendix)
- c. Syllabus (see on Appendix)
- d. Pictures when carrying out the test (see on Appendix)
- e. Students score related to variable X and Y (see on Appendix)

5. Data Analysis

Before testing the hypothesis, the researcher needs to analyze the data by using the statistical form because the research is the correlation research. The researcher uses the formula of correlation product moment to analyze the data which include two results of the test instruments. They are the students' vocabulary mastery test (variable X) and the students' reading comprehension on narrative text (variable Y).

Table 4.5: The Students score both of the Test

Students Number	Vocabulary Mastery Test	Reading Comprehension on Narrative Text
1.	76	68
2.	60	60
3.	48	60
4.	60	60
5.	40	32
6.	56	32
7.	68	60
8.	88	84
9.	56	32
10.	44	60
11.	28	32
12.	64	64
13.	84	72
14.	48	44
15.	28	40
16.	20	44
17.	60	92
18.	24	28
19.	60	40
20.	44	52
21.	20	40
22.	36	28
23.	36	32
24.	28	32
25.	52	76
26.	32	56
27.	92	96

28.	36	72
29.	68	80
30.	36	40
31.	36	40
32.	44	72
33.	80	84
34.	36	32
35.	48	52
36.	44	56
37.	72	60
38.	24	68
39.	60	64
40.	68	64
41.	36	48
42.	60	16
43.	64	36
44.	68	64
45.	36	28
46.	72	76
47.	60	76
48.	32	80
49.	72	84
50.	72	72
51	72	88
52	72	68
53	80	84
54	72	72
55	80	88
56	32	60
57	84	80
58	68	68
Sum	3.068	3.388

The researcher used Spearman Brown formula to analyze the data. The table below is a result of analyzing the data:

Table 4.6 Correlations between Variable X and Variable Y

		Vocabulary Mastery	Reading Comprehension on Narrative Text
Spearman's rho	Vocabulary Mastery	1,000	,657**
	Correlation Coefficient	.	,000
	Sig. (2-tailed)	58	58
	N	,657**	1,000
Reading Comprehension on Narrative Text	Correlation Coefficient	,000	.
	Sig. (2-tailed)	58	58
	N		

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

Source : Output SPSS 20

Based on the table above, we know that the value of correlation between variable X and Y is 0,657.

B. Hypothesis Testing

Hypothesis testing is the most important step in conducting a research. This step examine whether the hypotheses is accepted or rejected. So, this step can prove the theory or the current finding is suitable with fact or not. There are two kinds of hypothesis; null hypothesis and alternative hypothesis.

1. Alternative hypothesis (H_a) of this research is “there is correlation between the students’ vocabulary mastery and reading comprehension on narrative text at second grade of IPS students’ of MAN Pamekasan”.
2. Null hypothesis (H_0) of this research is “there is no correlation between the students’ vocabulary mastery and students’ reading comprehension on narrative text at second grade of IPS students’ of MAN Pamekasan”.

To know if the hypothesis is accepted, the value of r_{xy} must be compared with the value of r -table. The value of r -table can be seen on appendix. Before researcher determines the value of r -table, the researcher must calculate the number of df (degrees of freedom) by detracting sum of subjects with 2 ($df = N - 2$). So, $df = 58 - 2 = 56$. As seen in the analysis above, the value of r_{xy} is 0,657. If we consult it into r_t (r table) with df 56 in significant of 1% (0,354) or in significant level 5% (0, 273), we know that the value of r_{xy} (0,657) is higher than r -table in both significant levels of 1% (0,354) and 5% (0, 273). So, alternative hypothesis is accepted. It means that there is correlation between the students' vocabulary mastery and reading comprehension on narrative text at second grade of IPS students of MAN Pamekasan.

A. Discussion

In this study, the researcher formulates two research problems that are expected to be discussed. For discussing it, the researcher collected data related to X and Y variable by using test as research instruments. After that, the numerical data that have got is analyzed by using Product Moment Formula to find the correlation value (r -value) of this study.

The first research problem of this study is to know the correlation between students' vocabulary mastery and reading comprehension on narrative text at second grade of IPS students of MAN Pamekasan. After analysing the data that was got by the researcher by finding the r -value of Product Moment formula, it is shown that there is correlation between students' vocabulary mastery and reading comprehension on narrative text at second grade of IPS students' of MAN Pamekasan.

Based on the finding of research, the result shows that the better the students' vocabulary mastery the better they reading comprehension on narrative text at second grade of IPS student of MAN Pamekasan. That statement is proven by statistical data from the result of data analysis by using Product Moment formula in order to find the r -value. From the calculation, it is found that the r -value is 0,657. Then the researcher should comparing it with the r -table by using level of significance 5%, since this study is education research. After comparing the r -value with the r -table ($df = 56$), it is known that the r -value is higher than the r -table in both significant levels of 1% (0,354) and 5% (0, 273).

And the second research problem is how the statistical significant between students' vocabulary mastery and reading comprehension of narrative text at Second grade of IPS students of MAN Pamekasan. After analyzing the data that was got by the researcher by finding the r -value of Product Moment formula, it is shown that the researcher got the r -value is 0,657. And after the researcher got the r -value the researcher compared with r -table of interpretation.

Table 4.7: The Interpretation of $r - value$ Product Moment

The $r - value$ Product Moment	Interpretation
0,0 – 0,20	There is correlation between X variable and Y variable, but the correlation is the lowest. So it is considered nothing and can be ignored.
0,20 – 0,40	There is low correlation between X variable and Y variable.
0,40 – 0,70	There is sufficient/enough correlation between X variable and Y variable

0,70 – 0,90	There is high/strong correlation between X variable and Y variable
0,90 – 1,00	There is very high/strong correlation between X variable and Y variable

Based on table interpretation of r-value above, it's known that the value of r_{xy} is 0,657 between 0,40 till with 0,70 in the level of sufficient or enough interpretation. So, the alternative hypothesis (H_a) is accepted in the level of sufficient or enough interpretation and the correlation is significant. So, in this research, the relationship between students' vocabulary mastery and reading comprehension on narrative is in sufficient or enough interpretation.