

CHAPTER IV

RESULT OF RESEARCH AND DISCUSSION

In this chapter the researcher will present and discusses the statistical result of data. Base on the instruments that are used in conducting the research. This research is designed to know the Influence of Watching YouTube Cartoon Videos on Vocabulary Mastery for Early Childhood RA Tuhfatut Thullab Bicolorong Village Pakong Sub-District Pamekasan District. The items will be presented are: presentation of data, hypothesis testing, and discussion.

A. Presentation of Data

After collecting all of data that researcher needs, the next step is presentation of data into form the result of research. The data that will be described is data that researcher got during the research process in RA Tuhfatut Thullab Bicolorong Village Pakong Sub-District Pamekasan District. The data that will be described are the result of questionnaire as a method to collect the data related to variable X (watching YouTube) and the result of watching YouTube to collect the data related to variable Y (Vocabulary mastery).

1. Data Presentation of Documentation

Documentation is a method used to obtain data and information in the form of books, archives, documents, written number and images in the form

of reports and information that can support research.¹ Documentation is used to collect the data.

The data were obtained from documentation are as follow:

a. Item of test

In this research, to collect the data researcher use the test is multiple choice items which consist of 10 question based on vocabulary. The researcher gives 10 scores of correct answer and get 0 scores of wrong answer. If the students are able to answer the question correctly they get 100 score.

b. Students name list

To collect the data of documentation the researcher use student name list form early childhood of A class consist of 25 students of RA Tuhfatut Thullab Bicolorong Village Pakong Sub-District Pamekasan District.

NO	STUDENTS NAME LIST
1	SYARIF EL MALIK
2	DAFA AL-ASYARI
3	ILHAM PUTRA PRATAMA
4	HAIKAL
5	ZAKA RAMADHAN
6	ZAKI RAMADHAN
7	FAHMI ASIH
8	ZAH DAN ZADIT TAQWA
9	FAWAIDUL KHOIR

¹Ibid: sugiyono,page 329

NO	STUDENTS NAME LIST
10	AHMAD ROFIKI
11	KHOIRUL UMAM
12	AFRIN NUR IMAMAH
13	NURUL AMALIYAH
14	FITRIATUS SHOLEHAH
15	NAILATUL AZIZAH
16	ACHA FEBRIANTI
17	ADIBA ABDIQUNI
18	ANGITA NAURA APRILIA
19	AISYAH
20	LAILATUL QOMARIYAH
21	AINAN SALSABILA
22	LAILI ANGRAINI
23	SHOFIA MAULIDIA
24	LU'LUUL FIRDAUSI
25	NAILA ANINDITA ALISYA

c. Pictures

The picture for collecting the test in retrieval the data post-test and pre-test.

1. The picture for collecting the data of post-test



2. The picture for collecting the data of post-test



2. Data Presentation of The Test

Test is a tool or procedure used to find out or measure something using predetermined methods or rules. In this research the researcher use post-test and pre-test to collect the data.

Before, the researcher do the test, the researcher to know whether the data obtained in the field indeed right appropriate for verified or not. Then at testing this use validity and reliability.

a. Validity of the Instrument

Validity is the most important consideration in developing and evaluating measuring instrument.² This valid is used to make sure the data that was gotten above is valid. In this case, the researcher used content validity to know influence the vocabulary mastery. The researcher shows students test to the teacher in RA Tuhfatut Thullab Bicolorong and researcher advisor.

b. Reliability

The reliability is used to make sure that the obtained data above is reliable. In order to help the researcher in counting the reliability of test, the researcher used pre-test to know whether the instrument are reliable or not. Furthermore, the researcher calculates the score of pre-test by using Alpha.

²Ary, et. All, *Introduction to Research in Education*, Page 225

The formula is:

$$\alpha = \left(\frac{K}{K - 1} \right) \left(\frac{s_x^2 - \sum s_i^2}{s_x^2} \right)$$

Note:

α = coefficient Alpha/ reliability Cronbach Alpha

K = number of items of the questionnaire

$\sum s_i^2$ = sum of variances of the questionnaire score

s_x^2 = variances of the questionnaire score (All K items)

Table 4.1
The Score of Reliability of the Test

NO	T1	T2	Score	Total Score
1	40	90	130	16,900
2	40	60	100	10,000
3	40	100	140	19,600
4	50	70	120	14,400
5	40	90	130	16,900
6	50	90	140	19,600
7	50	80	130	16,900
8	40	90	130	16,900
9	70	100	170	28,900
10	50	100	150	22,500
11	50	90	140	19,600
12	50	80	130	16,900
13	50	80	130	16,900
14	70	90	160	25,600
15	40	70	110	12,100
16	50	90	140	19,600
17	50	80	130	16,900
18	70	90	160	25,600
19	40	100	140	19,600

20	50	90	140	19,600
21	40	70	110	12,100
22	40	80	120	14,400
23	50	90	140	19,600
24	40	90	130	16,900
25	50	80	130	16,900
	$\sum X = 1,210$	$\sum X = 2,140$	3,350	454,900
	$\sum X^2 = 60,700$	$\sum X^2 = 185,800$	248.100	

To take the researcher easy in analyzing, the score of reliability the test.

The researcher use some steps below in analyzing the data:

- a. Finding out the SI_1 the research using by the formula:

$$\begin{aligned}
 SI_1 &= \frac{\sum X^2 - \left(\frac{\sum X}{N}\right)^2}{N} \\
 &= \frac{60,700 - \left(\frac{1,210}{25}\right)^2}{25} \\
 &= \frac{60,700 - \frac{1,464,100}{25}}{25} \\
 &= \frac{60,700 - 58,564}{25} \\
 &= \frac{2,136}{25} \\
 &= 85,44
 \end{aligned}$$

- b. Finding out the SI_2 near the same with the formula SI_1

$$\begin{aligned}
SI_2 &= \frac{\sum X^2 - \frac{(\sum X)^2}{N}}{N} \\
&= \frac{185,800 - \frac{2,140^2}{25}}{25} \\
&= \frac{185,800 - \frac{4,579,600}{25}}{25} \\
&= \frac{185,800 - 183,184}{25} \\
&= \frac{2,616}{25} \\
&= 104.64
\end{aligned}$$

- c. After find the SI_1 and SI_2 the next the researcher must know $\sum S2^2$ by using the formula:

$$\begin{aligned}
&SI_1 + SI_2 \\
&= 85,44 + 104,64 \\
&= 190,08
\end{aligned}$$

- d. After that finding out $S2^2$ by using the formula:

$$\begin{aligned}
S2^2 &= \frac{\text{quadratic total score} - \frac{(\text{total score})^2}{N}}{N} \\
&= \frac{454,900 - \frac{3,350^2}{25}}{25} = \frac{448,900}{25} = 240
\end{aligned}$$

- e. Enter the result of the sum variance item and the total variance to the formula alpha:

$$\alpha = \left(\frac{K}{K-1} \right) \left(1 - \frac{s_x^2 - \sum s_i^2}{s_x^2} \right)$$

$$\begin{aligned}
&= \left(\frac{2}{2-1}\right) \left(1 - \frac{190.08}{240}\right) \\
&= \left(\frac{2}{1}\right) (1-0,792) \\
&= 2 \times 0,792 = 1,584
\end{aligned}$$

Table 4.2

The value of “Reliability”

Df	Significance Level	t-table	t-value
24	5%	0,388	1,584

B. Analysis of Data

1. Result of Test

A mentioned in the previous chapter, test is the main instrument in this research it's used to measure the students vocabulary mastery. Then the data which are obtained from the test is pre-test and post-test.

a. The result of pre-test

As explained in the previous chapter (chapter III), test is used to collect the data. The researcher carries out the researcher at A class for RATuhfatut Thullab Bicolorongand give the test especially pre-test. The researcher did the pre-test to measure the early childhood vocabulary mastery of RA of A class before watching YouTube cartoon videos the researcher only need one meeting in spreading out the pre-test , it was done thursday at 24thApril 2021 at 08.00-09.00. There are one class to conduct the pre-test, the test was in guess the colour, fruit and animals. So the student should guess the colour, fruit, and animals by vocabulary.

There are 25 students to conduct the pre-test and the standard score of vocabulary mastery 50, the lowest score is 40, and the highest score is 70.

The result of pre-test is shown in table.

Table 4.3

The score of pre-test

NO	STUDENTS	PRE-TEST
1	A	40
2	B	40
3	C	40
4	D	50
5	E	40
6	F	50
7	G	50
8	H	40
9	I	70
10	J	50
11	K	50
12	L	50
13	M	50
14	N	70
15	O	40
16	P	50
17	Q	50
18	R	70

19	S	40
20	T	50
21	U	40
22	V	40
23	W	50
24	X	40
25	Y	50
	Total	1210

b. The result of post test

The researcher did the post-test to measure early childhood vocabulary mastery after watching YouTube cartoon video. The researcher gave a post-test at 23th April 2021 on Saturday at 08.00-09.00. The researcher gave not the same test but resemble about the guess the colour, fruit and animals. There are one class 25 students to conduct the post test, the post-test score is higher than the pre-test score. There are 4 student get 100, 11 student get 90, 6 student get 80, 3 student get 70, 1 student get 60. The result of post-test is shown in table.

Table 4.4

The score post-test

NO	STUDENTS	POST-TEST
1	A	90
2	B	60
3	C	100
4	D	70

5	E	90
6	F	90
7	G	80
8	H	90
9	I	100
10	J	100
11	K	90
12	L	80
13	M	80
14	N	90
15	O	70
16	P	90
17	Q	80
18	R	90
19	S	100
20	T	90
21	U	70
22	V	80
23	W	90
24	X	90
25	Y	80
	Total	2140

Based on the table above, the researcher conducting the data from pre-test and post-test that given researcher to early childhood at A class for

RA Tuhfatut Thullab. As the researcher explained in (chapter III) the pre-test and post-test describe a person and place.

The result of the pre-test and post-test here, the student of the pre-test get high enough score in vocabulary mastery. Therefore the student not active in class because they are not feel interesting in class room. Whereas, the post-test have higher score in vocabulary mastery and the student very enthusiastic to learn because the student interest after watching YouTube.

And to know the result from pre-test and post-test score, the researcher used analytical scoring which required separated score for each number of aspect to task are said to be analytic. (see appendix I)

The next step is analyzing the database on pre-test and post-test formula but, before we entered the data we should know the result of $(X - Y)$. The result of $(X - Y)$ gotten after the researcher got the data from pre-test and post-test. The researcher consulted it that the result of $(X - Y)$ is the result of pre-test and post-test by following the table.

Table 4.5

The Influence of Watching YouTube Cartoon Videos on Vocabulary Mastery for Early Childhood RA Tuhfatut Thullab Bicolorong Village Pakong Sub-District Pamekasan District

		Score	Vocabulary	D=	D ² =
NO	STUDENTS	Pre-Test	Post-Test	(X - Y)	(X - Y) ²
1	A	40	90	-50	2500
2	B	40	60	-20	400
3	C	40	100	-60	3600

4	D	50	70	-20	400
5	E	40	90	-50	2500
6	F	50	90	-40	1600
7	G	50	80	-30	900
8	H	40	90	-50	2500
9	I	70	100	-30	900
10	J	50	100	-50	2500
11	K	50	90	-40	1600
12	L	50	80	-30	900
13	M	50	80	-30	900
14	N	70	90	-20	400
15	O	40	70	-30	900
16	P	50	90	-40	1600
17	Q	50	80	-30	900
18	R	70	90	-20	400
19	S	40	100	-60	3600
20	T	50	90	-40	1600
21	U	40	70	-30	900
22	V	40	80	-40	1600
23	W	50	90	-40	1600
24	X	40	90	-50	2500
25	Y	50	80	-30	900
	N = 25	-	-	$\sum D$ = -930	$\sum D^2$ = 38,100

Based on the data of the table, the researcher calculated the data by applied the formula as follow:

Where

t_0 = Number of “t” value.

M_D =Mean of difference.

SE_{M_D} =Standared error of mean of difference.

To take the researcher easy in analyzing, the post-test (X) and pre-test (Y). The researcher use same steps below in analyzing the data:

In table III the researcher result have succeed $\sum D = -930$ and $\sum D^2=38,100$

- a. To find out the D (differences = perbedaan) between the score variable I and variable II. If the variable I the researcher gave a symbol X but variable II the researcher gave a symbol Y, so: X-Y
- b. With the result $\sum D$ and $\sum D^2$ it, so can the researcher know the large standard deviation the differences score between Variable X and Variable Y and to finding out standard differences by using the formula: (SD_D)

$$\begin{aligned}
 SD_D &= \sqrt{\frac{\sum D^2}{N} - \left(\frac{\sum D}{N}\right)^2} \\
 &= \sqrt{\frac{38,100}{25} - \left(\frac{-930}{25}\right)^2} \\
 &= \sqrt{1.524 - \frac{864,900}{625}} \\
 &= \sqrt{1.524 - 1.383,84} \\
 &= \sqrt{140.16}
 \end{aligned}$$

$$= 11,84$$

So, from the calculating above the score of the standard deviation is 11,84 obtained.

c. With the result SD_D the large 11,84 we can further calculate standard error from mean difference score between variable X and variable Y and also to find out the standard error by using the formula:

$$\begin{aligned} SE_{MD} &= \frac{SD_D}{\sqrt{N - 1}} \\ &= \frac{11,84}{\sqrt{20 - 1}} \\ &= \frac{11,84}{\sqrt{19}} \\ &= \frac{11,84}{4,359} \\ &= 0,271 \end{aligned}$$

So, from the calculating above, the score of standard error is 0,271 obtained.

d. After that finding price t_0 before finding t_0 the researcher must know M_D by using the formula:

$$\begin{aligned} M_{D=} &= \frac{\sum D}{N} \\ &= \frac{-930}{25} \\ &= -37,2 \end{aligned}$$

So, the calculating above, the score of M_D is $-37,2$ obtained.

e. Finding price t_0 by using the formula:

$$\begin{aligned}
 t_0 &= \frac{M_D}{SE_{MD}} \\
 &= -\frac{37,2}{0,271} \\
 &= -137,2
 \end{aligned}$$

So, from the calculating above, the price t_0 is $-137,2$ obtained.

f. Insert all values obtained into t-test formula:

$$\begin{aligned}
 SD_D &= \sqrt{\frac{\sum D^2}{N} - \left(\frac{\sum D}{N}\right)^2} \\
 &= \sqrt{\frac{38,100}{25} - \left(\frac{-930}{25}\right)^2} \\
 &= \sqrt{1,524 - \frac{864,900}{625}} \\
 &= \sqrt{1,524 - 1,383.84} \\
 &= \sqrt{140.16} \\
 &= 11,84
 \end{aligned}$$

$$\begin{aligned}
 SE_{MD} &= \frac{SD_D}{\sqrt{N-1}} = \frac{11,84}{\sqrt{20-1}} = \frac{11,84}{\sqrt{19}} \\
 &= \frac{11,84}{4,359} = 0,271
 \end{aligned}$$

$$M_D = \frac{\sum D}{N} = \frac{-930}{25} = -37.2$$

$$t_0 = \frac{M_D}{SE_{MD}} = -137,2$$

After analyzing the data above, it can be seen that t-value (t_0) of this research is -137,2 to know whether the hypothesis of this research is accepted or rejected, the researcher compares t-value with t-table or consult t-value t-table in the hypothesis testing, it will be explain in the next discussion.

C. Hypothesis Testing

From the calculation above, it can be known the t-value is -137,2. Hypothesis testing the process to know whether the alternative hypothesis (H_a) is accepted or rejected. if the t-value is higher than t-table, so alternative hypothesis (H_a) is accepted and null hypothesis (H_o) is rejected. However, if the t-value is lower than t-table, so alternative hypothesis (H_a) is rejected and null hypothesis (H_o) is accepted.

The first steps is the researcher determines the t-value of degree of freedom (df) to know the result of hypothesis testing. The formula of degree of freedom is $df = N-1$, where N is number of participant. In this research the number of participant is 25 students so the degree of freedom (df) are:

1. $df = N-1$

$$df = 25-1$$

$$= 24$$

After knowing the t-value of df, the next is consulted to the t-table the value of t-table can be seen in the following table:

Table 4.6

The value of “t-test”

Df	Significance Level	t-table	t-value
24	5%	2,06	-137,2

Based on the table above, it can be known that t-value is higher than t-table either on the level of significance 5% of 24 is (-137,2 > 2,06).

From the result above, it can be concluded that the alternative hypothesis (H_a) is accepted, and the null hypothesis (H_o) is rejected. So, the researcher states that the students who taught vocabulary mastery on watching YouTube cartoon videos than before not watching YouTube cartoon videos on vocabulary mastery for early childhood RA Tuhfatut Thullab Bicolorong Village Pakong Sub-District Pamekasan District.

D. Discussion of Research

In this research, There are two research problems in that the researcher wants to research, as follows:

1. Is there any influence of watching YouTube cartoon Videos on vocabulary mastery for early childhood RA Tuhfatut Thullab Bicolorong Village Pakong Sub-District Pamekasan District.

This research used two test, namely pre-test and post-test Before giving the test to the students, the researcher must to know the validity and reliability of the test. The researcher used content validity to know that validity of the test. The researcher showed the test to teacher to know if the test is a valid. In testing the reliability the researcher used alpha formula to know the reliability

of the test. After analyzing test data above, the result showed that there are is an influence of watching YouTube on vocabulary mastery for early childhood RA Tuhfatut Thullab Bicolorong Village Pakong Sub-District Pamekasan District. It was showed by the result of “t” value of this research with “t” table is coefficient value of correlation “t”. The “t” value is 1,584. Its higher than “t” table “t” is 0,388. Its mean that, the test of pre-test and post-test is reliable, because the “t” value is higher than “t” table.

2. How significance is the influence of watching YouTube cartoon Videos on vocabulary mastery for early childhood RA Tuhfatut Thullab Bicolorong Village Pakong Sub-District Pamekasan District.

The researcher Analysis the data that got from the test. From analysis of data, we knew the result of the t-table is 2,06. The value of the table is $df = 24 (N-1)$ was -137,2 in significance level of t-table 5%. So, the researcher could take the conclusion that the influence watching YouTube cartoon videos have higher student vocabulary mastery for early childhood RA Tuhfatut Thullab Bicolorong Village Pakong Sub-District Pamekasan District. It is also proves that the watching YouTube cartoon movie is influence to be implemented in teaching vocabulary mastery, because it can make the students more active and enjoyable during joining the lesson in the classroom. It will help condition interest, and make students enjoy active is able to make the students share the idea, thought, and emotion. It was suitable from the result of data analysis above. It can be gave proof that YouTube as media help the students improve the vocabulary mastery.

