CHAPTER IV

DISCUSSION

In this chapter the researcher presents the data and then measures the validity and the reliability of data, analyze the data and proves hypothesis of the data.

A. Data Present

The instruments of this research are test and documentation. To measure the effectiveness of visualization strategy in gteaching reading at seventh grade of SMP Islam Riyadlatul Mubtadiin Tlonto Ares Waru Pamekasan, the researcher needs the score of pretest and post test. The researcher got the data as follow:

1. Validity of The Data

Validity is important in measuring, developing and evaluating a test**.** According to Donald Ary, the content validity like to look the material covered the wording of the question and the adequacy of the sample of items to measure the achievement in question.[1]

Based on the explanation above the test that the researcher gave is valid because the material of reading appropriate with the syllabus of seventh grade 2021-2022 in the first semester.

2. Reliability of The Data

[1] Donald Ary, at all, *Introduction of Research in Education*, (New York: Holt, Richart and Wiston, 2010), P. 226.

To check the reliability of this instrument, the researcher uses formula KR-21 to calculate the result of the test as below

a. Reliability of Pretest

Table 3

Reliability of Pretest

Respondents	Question number										Xt	Xt^2
	1	2	3	4	5	6	7	8	9	10		
1	1	1	0	0	0	0	0	0	0	1	3	6
2	1	0	0	1	1	0	1	1	1	0	6	12
3	1	1	1	0	1	1	0	1	0	0	6	12
4	1	0	0	1	1	0	0	0	1	0	4	8
5	1	1	0	1	0	0	0	0	0	0	3	6
6	1	1	0	0	0	1	1	0	0	0	4	8
7	1	0	0	0	0	1	0	0	0	1	3	6
8	1	0	1	1	1	0	1	1	0	0	6	12
9	1	0	0	0	0	1	0	1	1	0	5	10
10	1	0	0	0	1	1	0	0	0	1	4	8
11	1	1	0	0	0	1	1	0	1	0	5	10
12	0	0	0	0	1	1	0	0	1	0	3	6
13	1	0	0	0	1	1	0	0	0	0	3	6
14	0	1	0	0	0	1	0	0	1	1	4	8
15	1	0	0	0	1	1	1	0	0	1	4	8
16	1	1	0	0	0	0	0	0	1	1	4	8
17	1	1	0	0	0	0	1	0	1	0	4	8
18	1	1	0	0	1	1	1	0	1	1	7	14
19	1	1	0	0	1	0	1	0	1	0	5`	10

20	1	1	0	0	1	1	1	1	0	1	7	14
Total											90	180

Known:

$\sum Xt = 90$

$\sum Xt^2 = 180$

N = 20

K = 10

Asked : r_{11} ?

r_{11}= -031389

From the analysis above, the researcher found that the reliability of pretest is -031389. Where N is 20 (df=19) and the level of significance is 5% the value of r_{table} is 0,361. So, this test is reliable because r_{value} is higher than $r_{table.}$

r_{value}	r_{table} (5%)
-0,31389	0,361

b. Reliability of Post Test

Table 4
Reliability of Post Test

Respondents	Question number										Xt	Xt^2
	1	2	3	4	5	6	7	8	9	10		
1	1	1	0	1	0	1	0	1	1	0	6	12
2	1	1	1	1	1	1	0	1	0	0	7	14
3	1	1	1	0	1	1	1	1	1	1	9	18
4	1	1	1	1	1	0	1	1	1	0	8	16
5	1	1	1	1	1	1	0	1	1	1	9	18
6	1	0	1	0	1	1	1	1	0	1	7	14
7	0	1	1	1	0	1	1	0	1	1	7	14`
8	0	1	1	1	0	1	1	0	1	1	7	14

9	1	1	1	1	1	1	1	0	1	0	8	16
10	1	1	1	1	1	1	1	1	0	0	8	16
11	0	1	1	0	1	1	1	1	1	0	7	14
12	1	0	1	1	1	1	1	1	1	1	9	18
13	1	1	1	1	1	0	1	1	1	1	9	18
14	1	1	0	1	1	1	0	0	0	0	5	10
15	1	1	1	1	0	1	1	1	1	1	9	18
16	1	0	1	0	1	1	1	1	1	1	8	16
17	1	1	1	1	0	1	1	0	0	1	7	14
18	1	1	1	1	1	1	0	1	1	1	9	18
19	1	0	1	0	1	1	1	1	1	1	8	16
20	1	1	1	1	1	1	1	1	0	1	9	18
Total											156	312

Known:

$\sum Xt$ = 156

$\sum Xt^2$ = 312

N = 20

K = 10

Asked : r_{11} ?

r11= 0,32646

From the analysis above, the researcher found that the reliability of post test is 0,32646. Where N is 20 (df=19) and the level of significance is 5% the value of r_{table} is 0,361. So, this test is reliable because r_{value} is higher than $r_{table.}$

r_{value}	r_{table} (5%)
0,32646	0,361

c. The Result of The Data

Table 1

Students' Pre-test Score

No	Name	Total	Score
1	ACH.KHOMAIDI	3	30
2	ACH.JUNAIDI	6	60
3	ANIS SAROFAH	6	60
4	ASRI BARIQOH AYU	4	40
5	DEWI KARIMAH	3	30
6	FITRIYAH	4	40
7	KHOTIBUL MAHBUB	3	30
8	LASISETUL MAIQUNAH	6	60
9	LIANA FITRI	5	50
10	MOH.RONI	4	40
11	MOH.ARIFANDI	5	50
12	M.SHOHIBUDDIN	3	30
13	MOH.FAIZ MAULIDI	3	30
14	ROMDLON ACH FAJAR SODIQI	4	40
15	ROFIKA YULIYANTI	4	40
16	ULFA MARIYA	4	40
17	WILDATUL HASANAH	4	40
18	WAHIDATUN NIKMAH	7	70
19	YUSROTUL HASANAH	5	50
20	LAYLI MUSARROFAH	7	70
Total		90	900

From the data above, it shows that of the 20 students the lowest pretest score was 30. While the highest score was 70. The score of 30 was 5 people. Score 40 7 people. Score 50 3 people. Score 60 3 people. Score 70 2 people.

Table 2

Students' Post Test Score

No	Name	Total	Score
1	ACH.KHOMAIDI	6	60
2	ACH.JUNAIDI	7	70
3	ANIS SAROFAH	9	90
4	ASRI BARIQOH AYU	8	80
5	DEWI KARIMAH	9	90
6	FITRIYAH	7	70
7	KHOTIBUL MAHBUB	7	70
8	LASISETUL MAIQUNAH	7	70
9	LIANA FITRI	8	80
10	MOH.RONI	8	80
11	MOH.ARIFANDI	7	70
12	M.SHOHIBUDDIN	9	90
13	MOH.FAIZ MAULIDI	9	90
14	ROMDLON ACH FAJAR SODIQI	5	50
15	ROFIKA YULIYANTI	9	90
16	ULFA MARIYA	8	80
17	WILDATUL HASANAH	7	70
18	WAHIDATUN NIKMAH	9	90
19	YUSROTUL HASANAH	8	80
20	LAYLI MUSARROFAH	9	90
	Total	156	1560

From the table above, it shows that of the 20 students the highest post-test score was 90. While the lowest score was 50. The score of 50 was 1 person. Score 60 1 person. Score 70 6 people. Score 80 5 people. Score 90 7 people.

B. Analysis of The Data

After the instrument (pre-test and post test) is declared valid and reliable, the researcher needs to analyze the score, as follows:

Table 5

Data Analyzis

Respondents	**Pretest**	**Post Test**	**D**	**D^2**

1	30	60	-30	600
2	60	70	-40	1600
3	60	90	-30	600
4	40	80	-40	1600
5	30	90	-60	3600
6	40	70	-30	600
7	30	70	-40	1600
8	60	70	-10	100
9	50	80	-30	600
10	40	80	-40	1600
11	50	70	-20	400
12	30	90	-60	3600
13	30	90	-60	3600
14	40	50	-10	100
15	40	90	-50	2500
16	40	80	-40	1600
17	40	70	-30	600
18	70	90	-20	400
19	50	80	-30	600
20	70	90	-20	400
	900	1510	-690	26300
$\sum N$	**$\sum x_1$**	**$\sum x_2$**	**$\sum D$**	**$\sum D^2$**

From the table above it can be seen that all students experience an increase in understanding proved by an increase in the test score given by the teacher.

Known:

N = 20

$\sum X_1$ = 900

$\sum X_2$ = 1510

$\sum D$ = -690

$\sum D^2$ = 26300

Asked : t_{value} ?

So : $MD = |\frac{\sum D}{N}|$

$MD = |\frac{-690}{20}|$

$MD = 34{,}5$

$$t = \frac{MD}{\sqrt{\frac{SD}{(N-1)}}}$$

$$t = \frac{MD}{\sqrt{\frac{\frac{\sum D^2}{N} - \left(\frac{690}{N}\right)^2}{(N-1)}}}$$

$$t = \frac{34{,}5}{\sqrt{\frac{\frac{26300}{20} - \left(\frac{-690}{20}\right)^2}{(20-1)}}}$$

$$t = \frac{34{,}5}{\sqrt{\frac{1.315 - (34{,}5)^2}{19}}}$$

$$t = \frac{34{,}5}{\sqrt{\frac{1.315 - (34{,}5)^2}{19}}}$$

$$t = \frac{34{,}5}{\sqrt{\frac{1.315 - 1.190{,}25}{19}}}$$

$$t = \frac{34{,}5}{\sqrt{\frac{124{,}75}{19}}}$$

$$t = \frac{34{,}5\sqrt{19}}{\sqrt{124{,}75}}$$

$$t = \frac{34{,}5 \times 4{,}358}{11{,}169}$$

$$t = \frac{150{,}351}{11{,}169}$$

$$t = 13{,}46$$

From the analysis above, it is known that the t_{value} of pretest and post-test, the effectiveness of visualization strategy in teaching reading at seventh Grade of SMP Islam Riyadlatul Mubtadiin Tlonto Ares Waru Pamekasan is 13,46.

C. Hypothesis Testing

Hypothesis testing is needed in quantitative research. The researcher has written in chapter three, if the tvalue is higher than ttable (tvalue>ttable) it means that the alternative hypothesis (Ha) is accepted, but if the tvalue is lower than ttable (tvalue< ttable) means that the alternative hypothesis (Ha) is rejected.

The researcher uses the alpha significance 5% used in educational research as follow:

$$df = N - 1$$

$$df = 20 - 1$$

$$df = 19$$

df	level of significance	
	5%	1%
19	2,045	2,462

D. Discussion

Based on the findings of the data obtained by the researcher, it appears that the students taught using visualization strategies have more achievements in reading learning than before using visualization strategies on teaching reading at

the seventh grade of SMP Islam Riyadlatul mubtadiin Tlonto Ares Color Pamekasan.

The result of data analysis shows that t_{value} is higher that t_{table} (13,46 > 1,729) with the level of significance is 5% and the total respondents are 20 students (df = 19). According to the result of the data and what William Lee Hays stated that statistical significance is a statement about the likelihood of the observed result, nothing else. It does not guarantee that something important, or even meaningful, has found.[2] The reseacher can conclud that visualization strategi is effective in teaching reading at seventh grade of SMP Islam Riyadlatul Mubtadiin Tlonto Ares Waru Pamekasan.

[2] Saifuddin Azwar, "Signifikan Atau Sangat Signifikan?" *Buletin Psikologi, Volume 13,* No. 1, Juni 2015. P. 44.