CHAPTER IV

DATA PRESENTATION AND DATA ANALYSIS

A. Data Presentation

The purposes of the research were to obtain students' reading interest taught by using pass the message game and students' reading interest taught without using pass the message game, and to find out the significant difference between using and without using pass the message game on students' reading interest. The data in this research were the students' score of pre and post questionnaire. The researcher gave pre questionnaire to the students before treatment and gave post questionnaire after treatment.

The total score of pre and post questionnaires of control and experimental groups were significantly different. The total score of pre questionnaire of control group was 1571, while post questionnaire was 1512. The total score of pre questionnaire of experimental group was 1593, while post questionnaire was 1814. The researcher collected the data through following the procedures:

1. At pre questionnaire, the students were asked to answer 20 items of questions about their interest in reading English.

2. The researcher used pass the message game in teaching English (experimental class)

3. The researcher gave post questionnaire to the students with the same indicators as pre questionnaire.

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1. The Classroom Observation

Observation was used in order to know whether or not the game used had been applied as well as the procedure or not and to collect the data about the implementation of pass the message game. The writer had a list of observational item observed in experimental class during the teaching and learning process. It could be seen in the data presented below:

Table IV.1
The Description of the Implementation Pass the Message Game

No.	Procedures of pass the message game	Observation Times						Total			
		1	2	3	4	5	6	F Yes	%	F No	%
1.	The teacher writes a short message on a slip of paper	√	√	√	√	√	√	6	100%	0	100%
2.	The teacher shows the message to someone sitting at the front and to one side of the class. The teacher gives time to the students for five seconds to see the sentence, then the teacher takes it from them and keeps it.	√	√	√	√	√	√	6	100%	0	100%
3.	The teacher asks the students to write the sentence as they remember it on	√	√	√	√	√	√	6	100%	0	100%
4.	The teacher asks each learner writing down the message they remember	√	√	√	√	√	√	6	100%	0	100%
5.	When the message has been passed through all the learners, the teacher asks the last one to read out what they have written down	√	√	√	√	√	√	6	100%	0	100%
6.	The teacher reads out the message as it began	√	√	√	√	√	√	6	100%	0	100%
7.	The teacher asks all the students, in turn, to read out the message they passed on.	√	√	√	√	√	-	5		1	
8.	The teacher discusses why each of the changes might have occurred. Are they changes which don't change the sense significantly? Are the changes due simply to grammar mistakes?	√	√	√	√	√	√	6		0	100%
	Total							47	92%	1	8%

The writer used the following formula to get the percentage of the observation (Sudijono, 2007: 43):

$$P = \frac{F}{N} \text{ X } 100\%$$

Where :   P : Percentage

F : Frequency of the score

N : Number of Case

2. **Data presentation of students' reading interest who are taught by using pass the message game**

The data of the effect of using pass the message game on students' reading interest at Madrasah Tsanawiyah Al-Muttaqin Pekanbaru were obtained from students' pre-questionnaire and post questionnaire scores in experimental class and control class consisting 20 items of questionnaires. The description of the data is as follows:

Table IV.2
Students' Reading Interest Score in Experimental Class

No	Respondent	Score		Gain
		Pre-Questionnaire	Post-Questionnaire	
1	Student 1	70	69	-1
2	Student 2	65	72	7
3	Student 3	70	72	2
4	Student 4	65	80	15
5	Student 5	71	76	5
6	Student 6	69	77	8
7	Student 7	70	77	7
8	Student 8	60	69	9
9	Student 9	80	78	-2
10	Student 10	73	84	11
11	Student 11	66	73	7

No	Respondent	Score		Gain
		Pre-Questionnaire	Post-Questionnaire	
12	Student 12	65	75	10
13	Student 13	71	76	5
14	Student 14	65	68	3
15	Student 15	66	83	17
16	Student 16	71	76	5
17	Student 17	62	74	12
18	Student 18	66	78	12
19	Student 19	62	74	12
20	Student 20	57	75	18
21	Student 21	56	76	20
22	Student 22	63	76	13
23	Student 23	64	80	16
24	Student 24	66	76	10
Total		**∑=1593**	**∑=1814**	**∑=221**
Mean		**66,38**	**75,58**	**9,21**

From the table above, it can be seen that the calculation of total pre-questionnaire scores of experimental class was 1593, the total post-questionnaire scores of experimental class was 1814, and the total gain was 221. The mean of pre-questionnaire scores was 66,38, and the mean of post-questionnaire scores was 75,58, and the means of gain scores was 9,21. It means that the students had significant increasing of reading interest. It was proven by the histogram, the total score and the score of frequency from pre-questionnaire and post questionnaire which were significantly different, it can be seen below:

Table IV.3
Histogram for the score of pre-questionnaire Experimental class at
Madrasah Tsanawiyah Al-Muttaqin Pekanbaru
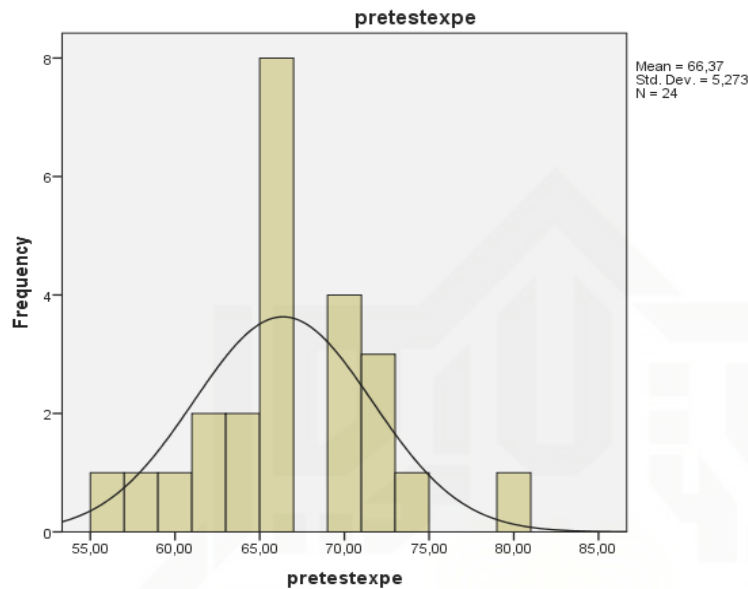
Based on the histogram above, it was found that the students who got score 56 was 1 respondent, the respondent who got score 57 was 1 respondent, the respondent who got score 60 was 1 respondent, the respondents who got score 62 were 2 respondents, the repondents who got score 63 was 1 respondent, the respondents who got score 64 was 1 respondent, the respondents who got score 65 were 4 respondents, the respondents who got score 66 were 4 respondents, the respondent who got score 69 was 1 respondent, the respondents who got score 70 were 3 respondents, the respondents who got score 71 were 3 respondents, the respondent who got score 73 was 1 respondent, the respondent who got score 80 was 1 respondent.

Table IV.4
Frequency score of pre questionnaire experimental class

Pretestexpe

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	56,00	1	4,2	4,2	4,2
	57,00	1	4,2	4,2	8,3
	60,00	1	4,2	4,2	12,5
	62,00	2	8,3	8,3	20,8
	63,00	1	4,2	4,2	25,0
	64,00	1	4,2	4,2	29,2
	65,00	4	16,7	16,7	45,8
	66,00	4	16,7	16,7	62,5
	69,00	1	4,2	4,2	66,7
	70,00	3	12,5	12,5	79,2
	71,00	3	12,5	12,5	91,7
	73,00	1	4,2	4,2	95,8
	80,00	1	4,2	4,2	100,0
	Total	24	100,0	100,0	

Table IV.5
Histogram for the score of post-questionnaire Experimental class at
Madrasah Tsanawiyah Al-Mutaaqin Pekanbaru
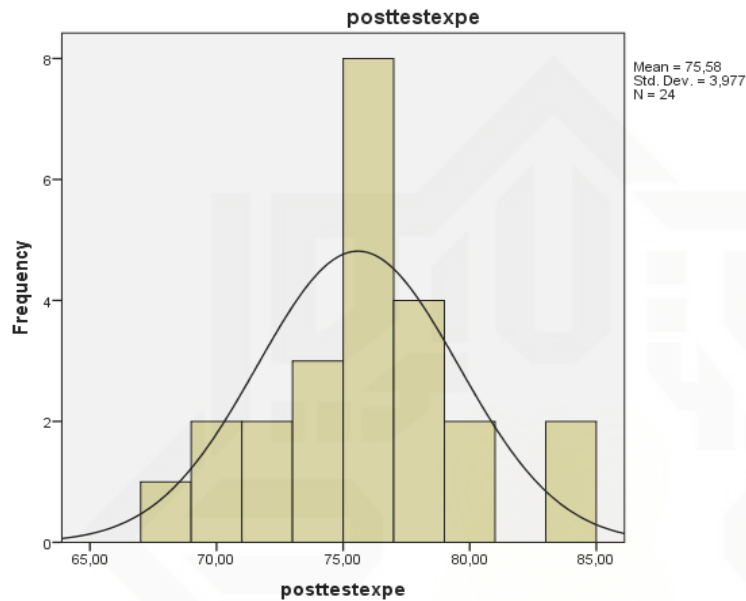
Based on the histogram above, we can see that the respondent who got score 68 was 1 respondent, the respondenst who got score 69 were 2 respondents, the respondents who got score 72 were 2 respondents, the respondents who got 73 were 1 respondent, the respondents who got 74 were 2 respondents, the respondents who got 75 were 2 respondents, the respondents who got 76 were 6 respondents, the respondents who got 77 were 2 respondents, the respondents who got 78 were 2 respondents, the respondents who got 80 were 2 respondents, the respondent who got 83 was 1 respondent, and the respondent who got 84 was 1 respondent.

Table IV.6
Frequency score of post questionnaire
Experimental class

Posttestexpe

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	68,00	1	4,2	4,2	4,2
	69,00	2	8,3	8,3	12,5
	72,00	2	8,3	8,3	20,8
	73,00	1	4,2	4,2	25,0
	74,00	2	8,3	8,3	33,3
	75,00	2	8,3	8,3	41,7
	76,00	6	25,0	25,0	66,7
	77,00	2	8,3	8,3	75,0
	78,00	2	8,3	8,3	83,3
	80,00	2	8,3	8,3	91,7
	83,00	1	4,2	4,2	95,8
	84,00	1	4,2	4,2	100,0
	Total	24	100,0	100,0	

Besides, the mean and standard deviation were also needed in analyzing data gotten from the score of pre-questionnaire and post-questionnaire in determining the mean and standard deviation, the researcher used the software SPSS to calculate it. The mean and standard deviation of pre questionnaire and post-questionnaire are in the following table:

Table IV.7
The Mean and Standard Deviation of Pre-Questionnaire
and Post-Questionnaire of Experimental Class

	Mean	Std. Deviation
Pre-qustionnaire	66.38	5.273
Post-questionnaire	75.58	3.977

3. **Students' reading interest taught without using pass the message game**

The data of reading interest taught without using pass the message game were also taken from pre-questionnaire and post-questionnaire, the data can be seen from the table below:

**Table IV.8**
Students' Reading Interest Score in Control Class

No	Respondent	Score		Gain
		Pre-Questionnaire	**Post-Questionnaire**	
1	Student 1	60	60	0
2	Student 2	68	60	-8
3	Student 3	66	59	-7
4	Student 4	70	60	-10
5	Student 5	58	59	1
6	Student 6	66	60	-6
7	Student 7	67	66	-1
8	Student 8	71	66	-5
9	Student 9	60	60	0
10	Student 10	66	66	0
11	Student 11	58	60	2
12	Student 12	67	72	5
13	Student 13	55	58	3
14	Student 14	65	59	-6
15	Student 15	59	67	8
16	Student 16	62	60	-2
17	Student 17	74	60	-14
18	Student 18	64	71	7
19	Student 19	70	69	-1
20	Student 20	73	71	-2
21	Student 21	68	70	2
22	Student 22	71	59	-12
23	Student 23	70	60	-10
24	Student 24	63	60	-3
	Total	**1571**	**1512**	**-59**
	Mean	**65.46**	**63.00**	**-2.46**

From the table above, it can be seen that the calculation of total pre-questionnaire scores of control class was 1571, the total post-questionnaire scores of control class was 1512, and the total gain was -59. The mean of pre-questionnaire scores was 65.46, the mean of post-questionnaire scores was 63.00, and the means of gain score was -2.46. It means that the students had little decreasing in their reading interest. It was proven by histogram, the total score and the score of frequency from pre-questionnaire and post-questionnaire which were significantly different can be seen below:

Table IV.9
Histogram for the Score of Pre-questionnaire Control Class at Madrasah Tsanawiyah Al-Muttaqin Pekanbaru
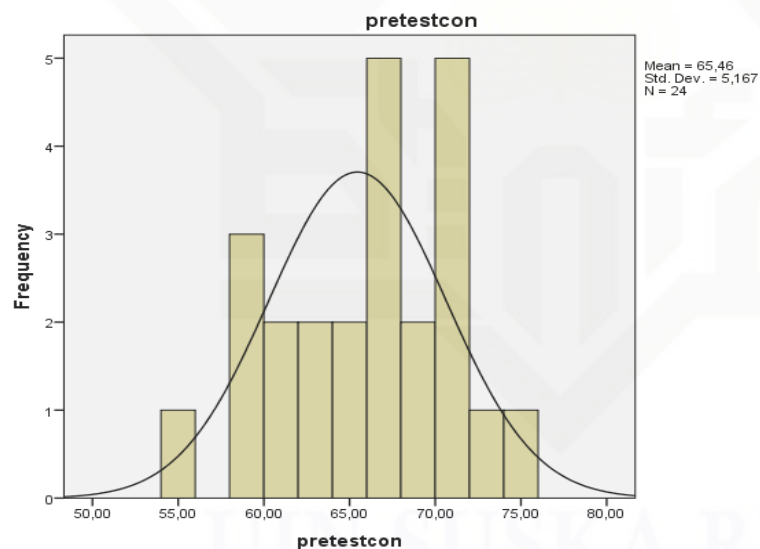
Based on histogram above, we can see that the respondent who got 55 was 1 respondent, the respondents who got 58 were 2 respondents, the respondent who got 59 was 1 respondent, the respondents who got 60 was 1 respondent, the respondents who got 62 was 1 respondent, the

respondent who got 63 was 1 respondent, the respondent who got 64 was 1 respondent, the respondent who got 65 was 1 respondent, the respondents who got 66 were 3 respondents, the respondents who got 67 were 2 respondents, the respondents who got 68 were 2 respondents, the respondents who got 70 were 3 respondents, the respondents who got 71 were 2 respondents, the respondent who got 73 was 1 respondent, and the respondent who got 74 was 1 respondent.

Table IV.10
Frequency Score of Pre-Questionnaire Control Class

Pretestcontrol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	55	1	4,2	4,2	4,2
	58	2	8,3	8,3	12,5
	59	1	4,2	4,2	16,7
	60	1	4,2	4,2	20,8
	62	1	4,2	4,2	25,0
	63	1	4,2	4,2	29,2
	64	2	8,3	8,3	37,5
	65	1	4,2	4,2	41,7
	66	3	12,5	12,5	54,2
	67	2	8,3	8,3	62,5
	68	2	8,3	8,3	70,8
	70	3	12,5	12,5	83,3
	71	2	8,3	8,3	91,7
	73	1	4,2	4,2	95,8
	74	1	4,2	4,2	100,0
	Total	24	100,0	100,0	

Table IV.11
Histogram for the Score of Post-questionnaire Control Class at
Madrasah Tsanawiyah Al-Muttaqin Pekanbaru
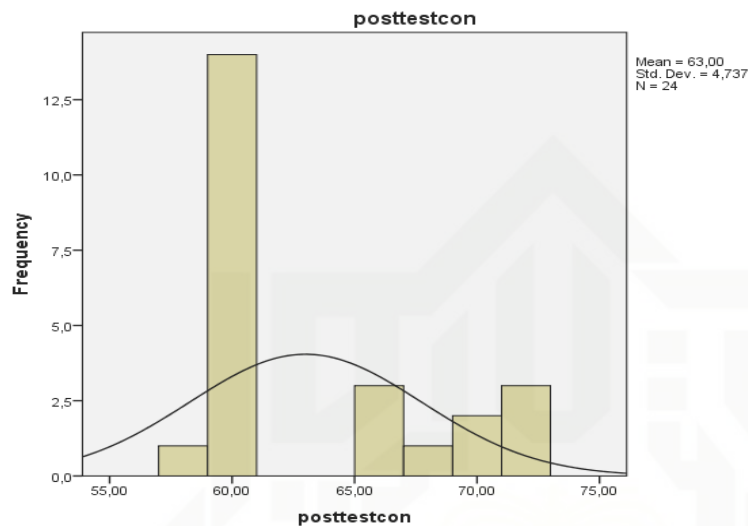
Based on histogram above, we can see that the respondent who got score 58 was 1 respondent, the respondents who got score 59 was 4 respondent, the respondents who got score 60 were 10 respondents, the respondents who got score 66 was 3 respondents, the respondent who got score 67 was 1 respondent, the respondent who got score 69 was 1 respondent, the respondents who got score 70 was 1 respondent, the respondents who got score 71 were 2 respondents, and the respondent who got score 72 was 1 respondent.

Table IV.12
Frequency Score of Post-Questionnaire Control Class

Posttestcon

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	58,00	1	4,2	4,2	4,2
	59,00	4	16,7	16,7	20,8
	60,00	10	41,7	41,7	62,5
	66,00	3	12,5	12,5	75,0
	67,00	1	4,2	4,2	79,2
	69,00	1	4,2	4,2	83,3
	70,00	1	4,2	4,2	87,5
	71,00	2	8,3	8,3	95,8
	72,00	1	4,2	4,2	100,0
	Total	24	100,0	100,0	

On the other hand, the mean and the standard deviation were needed in analyzing data gotten from the score of pre-questionnaire and post-questionnaire in determining the mean and standard deviation, the researcher used the software SPSS to calculate it. The mean and standard deviation of pre-questionnaire and post questionnaire are as follows:

Table IV.13
The mean and and standard deviation of pre-questionnaire and post-questionnaire of control class

	Mean	Std. Deviation
Pre-qustionnaire	66.46	5.167
Post-questionnaire	63.00	4.737

4. **The data presentation of the difference of the students' reading interest between those are taught and those who are not taught by using pass the message game**

The following table is the description of pre-questionnaire and post-questionnaire of experimental class and control class.

Table IV.14
Students' Pre-Questionnaire and Post-Questionnaire Score of
Experimental Class and Control Class

No	Students	Experimental Class			Control Class		
		pre-test	post-test	Gain	pre-test	post-test	gain
1	students 1	70	69	-1	60	60	0
2	students 2	65	72	7	68	60	-8
3	students 3	70	72	2	66	59	-7
4	students 4	65	80	15	70	60	-10
5	students 5	71	76	5	58	59	1
6	students 6	69	77	8	66	60	-6
7	students 7	70	77	7	67	66	-1
8	students 8	60	69	9	71	66	-5
9	students 9	80	78	-2	60	60	0
10	students 10	73	84	11	66	66	0
11	students 11	66	73	7	58	60	2
12	students 12	65	75	10	67	72	5
13	students 13	71	76	5	55	58	3
14	students 14	65	68	3	65	59	-6
15	students 15	66	83	17	59	67	8
16	students 16	71	76	5	62	60	-2
17	students 17	62	74	12	74	60	-14
18	students 18	66	78	12	64	71	7
19	students 19	62	74	12	70	69	-1
20	students 20	57	75	18	73	71	-2
21	students 21	56	76	20	68	70	2
22	students 22	63	76	13	71	59	-12
23	students 23	64	80	16	70	60	-10
24	students 24	66	76	10	63	60	-3
	Total	1593	1814	221	1571	1512	-59
	Mean	66.38	75.58	9.21	65.46	63.00	-2.46

Table IV.15
The Classification of Experimental Class of the Eight Grade
Students at Madrasah Tsanawiyah Al-Muttaqin Pekanbaru

No	Categories	Percentage	Frequency
1	Very low	0%-20%	-
2	Low	21%-40%	-
3	Enough	41%-60%	-
4	Strong	61%-80%	22
5	Very strong	81%-100%	2
	Total	-	24

Based on the table above about the classification of experimental class of the Eight grade students at Madrasah Tsanawiyah Al-Muttaqin Pekanbaru, the output from 24 students shows that the category of number 1 got the frequency 0, the category of number 2 got the frequency 0, the category of number 3 got the frequency 0, the category of number 4 got the frequency 22, and the category of number 5 got the frequency 2. It was found that the highest frequency of experimental class was 22. Thus, the majority of the students in this experimental class are classified into **strong** category in students' reading interest.

Table IV.16
The Classification of Control Class of the Eight Grade Students at
Madrasah Tsanawiyah Al-Muttaqin Pekanbaru

No	Categories	Percentage	Frequency
1	Very low	0%-20%	-
2	Low	21%-40%	-
3	Enough	41%-60%	15
4	Strong	61%-80%	9
5	Very strong	81%-100%	-
	Total	-	24

Based on the table above about the classification of control class of the Eight grade students at Madrasah Tsanawiyah Al-Muttaqin Pekanbaru, the output from 24 students shows that the category of number 1 got the frequency 0, the category of number 2 got the frequency 0, the category of number 3 got the frequency 15, the category of number 4 got the frequency 9, and the category of number 5 got the frequency 0. It was found that the highest frequency of control class was 15. Thus, the majority of the students in this control class are classified into **enough** category in students' reading interest.

B. Data Analysis

1) The Data Analysis of the Students' Reading Interest Taught by Using Pass the Message game of the Eighth Grade at Madrasah Tsanawiyah Al-Muttaqin Pekanbaru

The following table is the data description of students' pre-test and post-test scores of experimental class. It was obtained from the result of their reading interest test. The data can be described as follows:

Table IV. 17
Students Pre-Test and Post-Test of Experimental Class
Statistics

		PreExperiment	PostExperiment
N	Valid	24	24
	Missing	0	0
Mean		66,3750	75,5833
Std. Error of Mean		1,07645	,81186
Median		66,0000	76,0000
Mode		65,00[a]	76,00
Std. Deviation		5,27350	3,97729
Variance		27,810	15,819
Range		24,00	16,00
Minimum		56,00	68,00
Maximum		80,00	84,00
Sum		1593,00	1814,00

From the table above, the researcher found that the students were 24, the mean of pre test was 66.37 and the mean of post test was 75.58. the Standard error of mean for pre test was 1.076 and for post test was 0.811, the median for pre test was 66.00 and for post test was 76.00, the mode for pre test was 65 and post test was 76, the standard deviation for the pre test was 5.273 and for the post test was 3.977, the variance for pre test was 27.810 and for post test was 15.819, the range of pre test was 24 and for the post test was 16, the minimum of the pre test was 56 and for the post test was 68, maximum of pre test was 80 and for post test was 84.

Table IV.18
Students' Pre-Test and Post-Test Score
of Experimental Class

Valid of pre-test	Frequency of pre-test	Standard graduated	Valid of post-test	Frequency of post-test	Standard graduated
56	1	Fail	68	1	Fail
57	1	Fail	69	2	Fail
60	1	Fail	72	2	Pass
62	2	Fail	73	1	Pass
63	1	Fail	74	2	Pass
64	1	Fail	75	2	Pass
65	4	Fail	76	6	Pass
66	4	Fail	77	2	Pass
69	1	Fail	78	2	Pass
70	3	Pass	80	2	Pass
71	3	Pass	83	1	Pass
73	1	Pass	84	1	Pass
80	1	Pass			

Based on the data obtained in pre-test of experimental class, there were 16 students who did not reach the standard passing grade (kkm) or score obtained < 70, while there were 8 students who reached the standard passing grade (kkm) or the score obtained > 70.

The researcher used the following formula to get the percentage of the students who reached and who did not reach the standard passing grade (kkm):

$$P = \frac{F}{N} \; X \; 100\%$$

Where:

P : Percentage

F : Frequency

N : Number of Student

The percentage of students who did not reach the standard passing grade is as follows:

$$\frac{16}{24} \; x \; 100\% = 66.7\ \%$$

The percentage of student who reached the standard passing grade is as follows:

$$\frac{8}{24} \; x \; 100\% = 33.3\%$$

Based on data obtained in the post-test of experimental class there were 3 students who did not reach the standard passing grade or the score obtained < 70, while there were 21 students who reached it or the score obtained >70.

The percentage of students who did not reach it is as follows:

$$\frac{3}{24} \; x \; 100\% = 12.5\ \%$$

The percentage of students reached it is as follows:

$$\frac{21}{24} \ x \ 100\% = 87.5 \ \%$$

2) **Data Analysis of the Students' Reading Interest Taught without using Pass the Message Game of the Eighth grade at Madrasah Tsanawiyah Al-Muttaqin Pekanbaru .**

The following table is the description of the data of the pre-test and post-test scores of control class. It was obtained from the result of the students' reading interest test. The data are described as follows:

Table IV.19
Students Pre-Test and Post-Test of Control Class

Statistics		PreControl	PostControl
N	Valid	24	24
	Missing	0	0
Mean		65,4583	63,0000
Std. Error of Mean		1,05463	,96684
Median		66,0000	60,0000
Mode		66,00a	60,00
Std. Deviation		5,16661	4,73654
Variance		26,694	22,435
Range		19,00	14,00
Minimum		55,00	58,00
Maximum		74,00	72,00
Sum		1571,00	1512,00

From the table above, it was found that the students were 24, mean of pre test was 65.458 and mean of post test was 63.000. standard error of mean for pre test was 1.054 and for post test was 0.966, median for pre test was 66.00 and for post test was 60, mode for pre test was 66 and post test

was 60, standard deviation for pre test was 5.166 and for post test was 4.736, variance for pre test was 26.694 and for post test was 22.435, range of pre test was 19 and for post test was 14, minimum of pre test was 55 and for post test was 58, maximum for pre test was 74 and for post test was 72.

Table IV.20
Students' Pre-Test and Post-Test Score of Control Class

Valid of pre-test	Frequency of pre-test	Standard graduated	Valid of post-test	Frequency of post-test	Standard graduated
55	1	Fail	58	1	Fail
58	2	Fail	59	4	Fail
59	1	Fail	60	10	Fail
60	2	Fail	66	3	Fail
62	1	Fail	67	1	Fail
63	1	Fail	69	1	Fail
64	1	Fail	70	1	Pass
65	1	Fail	71	2	Pass
66	3	Fail	72	1	Pass
67	2	Fail			
68	2	Fail			
70	3	Pass			
71	2	Pass			
73	1	Pass			
74	1	Pass			

Based on the data obtained in pre-test of control class, there were 17 students who did not reach the standard passing grade (kkm) or score obtained < 70, while there were 7 students who reached the standard passing grade (kkm) or the score obtained > 70.

The researcher used the following formula to get the percentage of the students who did not and who reached the standard passing grade (kkm):

$$P = \frac{F}{N} X\ 100\%$$

Where:

P   : Percentage

F   : Frequency

N   : Number of Student

The percentage of students who did not reach the standard passing grade is as follows:

$$\frac{17}{24}\ x\ 100\% = 71\ \%$$

The percentage of students who reached the standard passing grade is as follows:

$$\frac{7}{24}\ x\ 100\% = 29\ \%$$

Based on data obtained in the post-test of experimental class there were 20 students who did not pass or the score obtained < 70, while there were 4 students who passed or the score obtained >70.

The percentage of students who did not pass is as follows:

$$\frac{20}{24}\ x\ 100\% = 83.3\%$$

The percentage of students who passed is as follows:

$$\frac{4}{24}\ x\ 100\% = 16.7\ \%$$

3) **Data Analysis of the Effect of using Pass the Message Game on students' reading interest of the Eighth Grade at Madrasah Tsanawiyah Al-Muttaqin Pekanbaru.**

To obtain the significant effect of using Pass the Message Game on students' reading interest of the eighth grade at Madrasah Tsanawiyah Al-Muttaqin Pekanbaru, the data were obtained from the post test of control class and post test in experimental class. The data can be seen in the following table:

Table IV.21
Data Analysis of Post-test Scores of Experimental
and Control Group

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
PosttestControl	24	63,0000	4,73654	,96684
PosttestExperiment	24	75,5833	3,97729	,81186

From the table above, it was found that they were 24 students in each of experimental and control class. Mean of experimental class was 75.58, standard deviation was 3.977 and standard error mean was 0.811. Whereas Mean of control class was 63.00, standard deviation was 4.736, and standard error mean was 0.966.

Table IV.22
Data Analysis of Independent Sample T-test

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Score Equal variances assumed	4,104	,049	9,967	46	,000	12,58333	1,26250	10,04206	15,12461
Equal variances not assumed			9,967	44,664	,000	12,58333	1,26250	10,04000	15,12666

From the table of independent samples test showed that the F was 4.104, sig was 0.049, t-test result was 9.967, df was 46, significance was 0.000, mean difference was 12.58333, standard error was 1.26250, lower difference interval was 10.04206, and upper difference interval was 15.12461. By orientating the number of significance, if probably is >0.05, null hypothesis (Ho) is accepted. If probably is <0.05, alternative hypothesis (Ha) is accepted.

Thus, the researcher can conclude that Ha is accepted and Ho is rejected. In the other words, there is a significant difference of students' Reading Interest between those who were taught and those were not taught by using pass the message game of the Eighth Grade at Madrasah Tsanawiyah Al-Muttaqin Pekanbaru.