CHAPTER IV

PRESENTATION AND ANALYSIS

A. The Data Presentation

This research is to find out the effect of using Pattern Maker strategy to improve the students' reading comprehension at SMPN 23 Pekanbaru. The data of this research were the score of the students' pre-test and post-test.

1. The Data Presentation of Students' Reading Comprehension (Variable Y)

    a. Students' Reading Comprehension Taught by using Pattern Maker Strategy.

The data of the students' reading comprehension taught by using Pattern Maker strategy were gotten from pre-test and post-test of VIII G as an experimental class taken from the sample of this class (40 students). The data can be seen from the table below

Table IV. 1

The Score of the Students' Reading Comprehension Taught by Using Pattern Maker Strategy

Student	Experiment Class		Gain
	Pre-test	Post-test	
1	45	65	20
2	50	65	15
3	65	75	10
4	70	80	10
5	45	65	20
6	60	75	15
7	55	75	20
8	50	65	15
9	55	70	15
10	60	70	10
11	55	60	5
12	70	75	5
13	60	75	15
14	65	70	5
15	65	70	5
16	50	60	10
17	55	70	20
18	65	75	10
19	65	75	10
20	60	65	5
21	65	75	10
22	70	80	10
23	60	65	5
24	75	80	10
25	45	60	15
26	70	75	5
27	75	80	5
28	50	65	15
29	75	85	10
30	75	80	5
31	55	65	10
32	50	60	10
33	50	65	15
34	60	70	10
35	80	85	5
36	55	65	10
37	65	75	10
38	40	60	20
39	70	75	5
40	65	70	5
Total	2710	2835	125

From the table IV.1, the writer found that the total score of the pre test in experimental group was 2710 while the highest was 80 and the lowest was 45, and the total score of the post-test in experimental group was 2835, while the highest was 85 and the lowest was 60. It means that the students have significant increasing of their reading comprehension, it is proved by the total score and the score of frequency from pretest and post test which is significantly different, and it can be seen as below:

Table IV.2

The Frequency Score of Pre Test and Post Test of Experimental Group

Valid of Pre-Test	Frequency of Pre-Test	Valid of Post-Test	Frequency of Post-test
40	1	60	5
45	3	65	10
50	6	70	7
55	6	75	11
60	6	80	5
65	8	85	2
70	5		
75	4		
80	1		
Total	N=40	Total	N=40

Besides, the mean and standard deviation were also needed in analyzing data which were gotten from the score of pre test and post test. In determining the mean and standard deviation, the writer used the software SPSS 16 to calculate it. The mean and standard deviation of pre test and post test are as in the following table:

Table IV.3

The Mean and Standard Deviation of Pre Test and Post Test of Experimental Group

	Mean	Std. Dev
Pre-Test	60.38	9.896
Post-Test	70.88	7.061

From the table above, the distance between Mean (Mx) and Standard Deviation (δ) is too far. In other words, the scores obtained are normal.

b. Students' Reading Comprehension Taught by Using Conventional Strategy

The data of the students' reading comprehension taught by using conventional strategy were also taken from pre-test and post-test of VIII F as control class taken from the sample of this class (40 students). The data can be seen from the table below:

Table IV.4

The Score of the Students' Reading Comprehension Taught by Using Conventional Strategy

Student	Control Class		Gain
	Pre-test	Post-test	
1	40	55	15
2	50	60	10
3	55	65	10
4	60	65	5
5	45	50	5
6	65	70	5
7	55	55	0
8	50	65	15
9	55	55	0
10	65	70	5
11	65	70	5
12	65	65	0
13	60	65	5
14	65	70	5
15	60	70	5
16	50	60	10
17	55	60	5
18	60	70	10
19	65	65	0
20	60	65	5
21	70	75	5
22	70	70	0
23	60	65	5
24	55	65	10
25	40	55	15
26	70	75	5
27	70	75	5
28	55	60	5
29	65	70	5
30	70	75	5
31	50	65	15
32	50	60	10
33	55	55	0
34	60	65	5
35	75	75	0
36	55	60	5
37	60	60	0
38	40	45	5
39	65	65	0
40	55	60	5
Total	2335	2630	295

From the table IV.4, The writer found that the total score of the pre test in control group was 2335, while the highest was 75 and the lowest was 40, and the total score of the post-test in control group was 2630 while the highest was 75 and the lowest was 45.

It means that the students have little increasing of their reading comprehension, and it is not as experimental class. Besides, the mean of the pre test and the post test of control group and experimental group also have a big difference. The frequency score and the mean of pre test and post test of control group can be seen as below:

Table IV.5

The Frequency Score of Pre Test and Post Test of Control Group

Valid of Pre-Test	Frequency of Pre-Test	Valid of Post-Test	Frequency of Post-test
40	3	45	1
45	1	50	1
50	5	55	5
55	9	60	8
60	8	65	12
65	8	70	8
70	5	75	5
75	1		
-			
Total	N=40	Total	N=40

Table IV.6

The Mean and Standard Deviation of Pre Test and Post Test of Control Group

	Mean	Std. Dev
Pre-Test	58.38	8.726
Post-Test	64.12	7.151

From the table above, the distance between Mean (Mx) and Standart Deviation (δ) is too far. In other words, the scores obtained are normal.

2. The Data Presentation of the Effect of Using Pattern Maker Strategy to improve Students' Reading Comprehension

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

Table IV. 7

Recapitulation of Students' Score

Students	Experiment Class		Gain	Control Class		Gain
	Pre	Post		Pre	Post	
1	45	65	20	40	55	15
2	50	65	15	50	60	10
3	65	75	10	55	65	10
4	70	80	10	60	65	5
5	45	65	20	45	50	5
6	60	75	15	65	70	5
7	55	75	20	55	55	0
8	50	65	15	50	65	15
9	55	70	15	55	55	0
10	60	70	10	65	70	5
11	55	60	5	65	70	5
12	70	75	5	65	65	0
13	60	75	15	60	65	5
14	65	70	5	65	70	5
15	65	70	5	60	70	5
16	50	60	10	50	60	10
17	55	70	20	55	60	5
18	65	75	10	60	70	10
19	65	75	10	65	65	0
20	60	65	5	60	65	5
21	65	75	10	70	75	5
22	70	80	10	70	70	0
23	60	65	5	60	65	5
24	75	80	10	55	65	10
25	45	60	15	40	55	15
26	70	75	5	70	75	5
27	75	80	5	70	75	5
28	50	65	15	55	60	5
29	75	85	10	65	70	5
30	75	80	5	70	75	5
31	55	65	10	50	65	15
32	50	60	10	50	60	10
33	50	65	15	55	55	0
34	60	70	10	60	65	5
35	80	85	5	75	75	0
36	55	65	10	55	60	5
37	65	75	10	60	60	0
38	40	60	20	40	45	5
39	70	75	5	65	65	0
40	65	70	5	55	60	5
Total	2710	2835	125	2335	2630	295
Mean	67.75	70.875		58.375	65.75	

From the table above, it can be seen that there is actually significant different between pre-test and post-test in experimental class and pre-test and post-test in control class. It also can be seen from the difference of the gain in the experimental class and control class. To make it clear, it was analyzed in the data analysis below.

B. The Data Analysis

1. The data analysis of Students' Reading Comprehension before Using Pattern Maker Strategy for Experimental Class and without Pattern Maker for Control Class

The students' pre- and post-test score of reading comprehension before giving new treatment (Pattern Maker Strategy) for the experimental class and non Pattern Maker Strategy for the control class can be seen from the Independent Samples T-Test that was obtained by using SPSS 16.0 in the following table:

Table VI.8

The Differences between Students' Pre-test Score in Experimental Class and Control Class

Group Statistics

	group	N	Mean	Std. Deviation	Std. Error Mean
pretest	1	40	60.38	9.896	1.565
	2	40	58.38	8.726	1.380

From table IV.8 it can be seen that the mean score of pre-test in the experimental class was 60.38 and the standard deviation of pre-test in the experimental class was 9896. The mean score of pre-test in the control class was 58.38 and the standard deviation of pre-test in the control

class was 8.726 So, the mean and the standard deviation of pre-test score in the control and experimental classes were significantly difference.

Table IV.9

The Independent Sample T-Test of Pre-test Score in the Experimental

Class and Control Class

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
pretest	Equal variances assumed	921	340	.959	78	.341	2.000	2086	.2153	6153
	Equal variances not assumed			.959	76696	.341	2.000	2086	.2154	6154

From the table of Independent Samples T-test showed that the T-test result was 959, df was 78, significant was 340, mean difference was 2.000, standard error was 2086, lower

difference interval was .2153, and upper difference interval was 6153. There were two ways that can be done in interpreting t_o. They were:

a. By comparing t_o ($t_{obtained}$) to t_{table} from df = 78, it is found that the level significance of 5% was 2.01 and the level significance of 1% is 2.68. If t_o (t-obtained) > t table, it means that null hypothesis (H_o) is rejected and alternative hypothesis (H_a) is accepted. Meanwhile, if t_o ($t_{obtained}$) < t_{table}, it means that alternative hypothesis (H_a) is rejected and null hypothesis (H_o) is accepted.

b. By orientating number of significance. If probability >0.05, null hypothesis (H_o) is rejected. If probability <0.05 alternative hypothesis (H_a) is accepted.

Based on the score of t $_{obtained}$ gathered from SPSS 16.0. It shows that t_o higher than t $_{table}$. The finding of t_o 9.59 while the level significance of 5% was 0.341and the level significance of 1% is 2.68. It can be read that **2.01<9.59>2.68**. Thus, the writer can conclude that H_a is rejected and H_o is accepted. In other words, there is no significant difference on students' reading comprehension before using OARWET for the experimental group and without using Pattern Maker Strategy for the control group of the second year students at SMPN 23 Pekanbaru

2. The data analysis of Students' Reading Comprehension after Using Pattern Maker Strategy for Experimental Class and Pattern Maker Strategy for Control Class

The students' pre- and post-test score of reading comprehension after giving new treatment (Pattern Maker Strategy) for the experimental class and non Pattern Maker Strategy for the control class can be seen from the Independent Samples T-Test that was obtained by using SPSS 16.0 in the following table:

Table IV.11

The Differences between Students' Post-test Score in
Experimental Class and Control Class

Group Statistics

	group	N	Mean	Std. Deviation	Std. Error Mean
Postest	1	40	70.88	7.061	1.116
	2	40	64.12	7.151	1.131

From table IV.11 it can be seen that the mean score of post-test in the experimental class was 70.88 and the standard deviation of post-test in the experimental class was 7.061. The mean score of post -test in the control class was 64.12 and the standard deviation of post-test in the control class was 7.151. So, the mean and the standard deviation of pre-test score in the control and experimental classes were significantly different.

Table IV.12

The Independent Sample T-Test of Post-test Score in the Experimental

Class and Control Class

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
								Std. Error Differenc e	95% Confidence Interval of the Difference	
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Differe nce		Lower	Upper
Postest	Equal variances assumed	.168	.683	4.248	78	.000	6.750	1.589	3.587	9.913
	Equal variances not assumed			4.248	77.987	.000	6.750	1.589	3.587	9.913

From the table of Independent Samples T-test showed that the T-test result was 4.248, df was 78, significant was 683, mean difference was 6.750, standard error was 1.589, lower difference interval was 3.587, and upper difference interval was 9.913. There were two ways that can be done in interpreting t_o. They were:

c. By comparing t_o ($t_{obtained}$) to t_{table} from df = 78, it is found that the level significance of 5% was 2.01 and the level significance of 1% is 2.68. If t_o (t-obtained) > t table, it means that null hypothesis (H_o) is rejected and alternative hypothesis (H_a) is accepted. Meanwhile, if t_o ($t_{obtained}$) < t_{table}, it means that alternative hypothesis (H_a) is rejected and null hypothesis (H_o) is accepted.

d. By orientating number of significance. If probability >0.05, null hypothesis (H_o) is rejected. If probability <0.05 alternative hypothesis (H_a) is accepted.

Based on the score of $t_{obtained}$ gathered from SPSS 16.0. It shows that t_o higher than t_{table}. The finding of t_o 4.248 while the level significance of 5% was 0.000 and the level significance of 1% is 0.000. It can be read that **2.01< 4.248>2.68**. Thus, the writer can conclude that H_a is rejected and H_o is accepted. In other words, there is no significant difference on students' reading comprehension after using Pattern Maker Strategy for the experimental group and without using Pattern Maker Strategy for the control group of the second year students at SMPN 23 Pekanabaru

3. **The Data Analysis of the Effect of Using Pattern Maker Strategy toward Reading Comprehensio of the Second Year Students at State SMPN 23 Pekanbaru.**

To find out the significant effect of using of using Pattern Maker Strategy toward reading comprehension, the writer showed the Paired Sample T-Test statistics from the pre-test and post-test score in the experimental class. The data were taken by using SPSS 16.0 that can be seen from the table below:

Table IV.13

The Differences between Students' Pre- and Post-test Score in Experimental Class

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	preexperiment	58.38	40	8.726	1.380
	postexperiment	64.12	40	7.151	1.131

Based on the table above, the total students from each class were 40 students in the experimental class. The mean of pre-test in experimental class was 58.38 and the mean of post-test in the experimental class was 64.12. The standard deviation of pre-test in the experimental class was 8.726 and the standard deviation of post-test in the experimental class was 7.151. Then, the standard error mean from pre-test in the experimental class was 1.380 and the standard error mean from post-test in the experimental class was 1.31.

Table IV.15

Paired Samples Test

Paired Samples Test

	Paired Differences							
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)

Paired Samples Test

| | Paired Differences | | | | | | | |
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | t | df | Sig. (2-tailed) |
				Lower	Upper			
Pair 1 Pre-post	5.750	4.465	.706	4.322	7.178	-8.145	39	.000

From the table of paired samples test showed that the mean was 5.750, standard deviation was 4.465, standard error mean was .706, lower difference interval was 4.322, t-test result was 7.178,df was 39, and significant was .000.There were two ways that can be done in intrepreting. They were:

    a. By comparing to (t-obtained) to t table from df= 39, it is found that the level significance of 5% was 2.06 and the level significance of 1% is 2.68 if to to (t obtained) t table, it means that null hypotesis (Ho) is rejected and alternative hypotesis (Ha) is accepted. Meanwhile, if to (t-obtained) < t table, it means that alternative hypotesis (Ha) is rejected and null hypotesis (Ho) is accepted.

    b. By oriantating number of significance.if probability > 0,05, null hypotesis (Ho) is rejected. If probality <0,05 alternative hypothesis (Ha) is accepted.

Based on score of tobtained gathered from SPSS 16.0. it shows that to higher than t table. The finding of to 7.178 while the level significance of 5 % was 2.06 and the level significance of 1% is 2.68. it can be read that 2.06<7.178>2.68. Thus, the writer can conclude that Ha is accepted and Ho is rejected. In order word, there is significance effect of using Pattern Maker Strategy toward students reading comprehension of the second year students at state junior high school 23 Pekanbaru.

$$r^2 = \frac{t^2}{t^2 + n - 2}$$

$$r^2 = \frac{7.178^2}{7.178^2 + 25 - 2}$$

$$r^2 = \frac{51.5236}{89.5236}$$

$$r^2 = 0.5755$$

To find out the percentage of coefisien effect (Kp), it is used the following formula:

$Kp = r^2 \times 100\%$

$KP = 0,5755 \times 100\%$

$Kp = 5755 \%$

From the result of the percentsge of coeficient effect above, it can be seen that interactive instructional model contributed 5755 % for students reading comprehension.

Based on the explanation above, the write concluded that the writer could answer the question of formulation of problem.

   a. There is no significant different between students reading comprehension before being taught by using Pattern Maker Strategy for experimental class and taught without using Pattern Maker Strategy for control class of the second year students at state Junior High School 23 Pekanbaru

b. There is significance difference between students reading comprehension after being taught by using Pattern Maker Strategy for experimental class and taught without using Pattern Maker Strategy for control class of the second year students at State Junior High School 23 Pekanbaru

c. There is significance effect of using Pattern Maker Strategy toward students reading comprehension of the second year students at state Junior High School 3 23 Pekanbaru. Ha is accepted if to > t table or there signifancant effect of using Pattern Maker students reading comprehension of the second year students at State Junior High School 23 Pekanbaru. Ho is accepted if to < t table or there is significant effect of using Pattern Maker Strategy toward reading comprehension of the second year students at State Junior High School 23 Pekanbaru. The result of the percentage of coefisien effect (Kp) was 57.55%.