

CHAPTER IV

RESULT AND DISCUSSION

A. Description of Data

In this chapter, the research data intends to find out the accurate data according to the research title. Researcher took 60 students of class XI MIPA to be used as samples. To the sample of this study uses two classes. Each class consist of 30 students, class XI MIPA 1 as the experimental class has 30 students while class XI MIPA 4 as the control class has 30 students. The researcher conducted this research with the aim of knowing the effectiveness of students' reading using PLAN strategy. And to analyze the data given to the XI MIPA class students of SMAN 10 Pandeglang through test of pre-test and post-test in the experimental class and control class. As a reference for researchers, is the PLAN strategy effective on the reading comprehension of class XI students of SMAN 10 Pandeglang.

Before conducting the research, the researcher conducted a pre-test to determine the extent of students' understanding of reading comprehension. Meanwhile, to find out the result of students' reading comprehension, the researcher conducted a post-test in each class. Namely the experimental class and the control class. Therefore, the researcher uses two data, the first data is the result of the pre-test named variable X and the second data is post-test named variable Y. in the results of the pre-test of each class that has been given by the researcher to the students of class XI MIPA 1 and 4 SMAN 10 Pandeglang shows lack of interest in reading for students in reading comprehension. So that researchers need to use strategies or learning methods for students' reading comprehension in class XI. In order to improve students' reading comprehension.

For this reason, the researchers used a learning strategy, namely the PLAN strategy to improve the reading comprehension of class XI students. Therefore, the researchers conducted treatment in the experimental class using the PLAN strategy and gave a post-test as a measure of the success of the strategy on students' reading comprehension. And the post-test result of the experimental class is the effectiveness of the PLAN strategy on students' reading comprehension. The author conducted a quantitative data analysis. The data was obtained by giving an instrument with 20 multiple choice questions, the correct answer was given a score of 1 and the wrong answer was given a score of 0. However, the number of correct scores for each student was multiplied by 10 divided by 2 to make it easier to obtain the post-test result given to class XI students. To determine the effectiveness of the PLAN strategy on the reading comprehension of class XI students. The research data were pre-test and post-test for class XI MIPA 1 and XI MIPA 4 SMAN 10 Pandeglang. The researcher made a score table as follows:

Table 4.1

Data from pre-test and post-test of experiment class

No	Students	Score	
		Pretest	Post test
1	A. Figo Hermansyah	50	75
2	Ahmad Kholil	45	65

3	Aldi Suharja	50	70
4	Ane Oktaviani	60	80
5	Apni Anggraeni	65	75
6	Bilal Mustofa	55	65
7	De'a Wagina	70	80
8	Dewi Ayudiah	65	75
9	Eka Septania	70	85
10	Hana Nabilah	65	70
11	Ihza Kurniawan	55	70
12	Intan Lestari	70	75
13	Itsni Nurhikmah	70	80
14	Maryadi	55	65
15	Muhamad Nelson	50	60
16	Mulyati	60	75

17	Nopi Nurfahmi	65	70
18	Nurjanah	70	80
19	Oman Faturohman	60	75
20	Rani Rohaeni	65	70
21	Rian Agus Setiawan	55	65
22	Rina Herdiati	65	75
23	Rismawati	60	75
24	Saepul Yana	70	85
25	Saripudin	50	65
26	Siti Fajriah	50	65
27	Siti Robiah	55	70
28	Sri Wahyuni	65	75

29	Tasya Rachma Ayu	70	80
30	Thifa Fidini	65	80
Σ		1820	2180
X		60.67	73,17

Based on the table above, there are pre-test and post-test scores. The pretest scores were taken at the first meeting before the study using the PLAN strategy had been carried out on reading materials.

The results were taken from a sample of 30 students, each of which had the lowest and highest scores. The lowest score in the pre-test in the experimental class was 45 while the highest score was 70 with an average of 60.66. The lowest score in the post-test in the experimental class was 60 while the highest score was 85 with an average of 72.66.

With the calculation below:

$$M = \frac{\Sigma x_2}{N_2}$$

$$= \frac{2180}{30} = 73,17$$

$$M_2 = \frac{\Sigma x_1}{N_1}$$

$$= \frac{1820}{30} = 60,67$$

Note: M1 = Mean (post-test)
 M2 = Mean (pre-test)
 X1 = Students' score (post-test)
 X2 = Students' score (pre-test)
 N = Number of students
 M = M1-M2
 = 73,17 – 60,67
 = 12

Note: M = Mean
 M1 = Mean of Post-test
 M2 = Mean of Pre-test

The implementation of learning understanding of reading narrative text by researchers uses the PLAN strategy with a concept map. This means that the teacher teaches in a pleasant environment and makes students enjoy the lesson. In the experimental class teacher uses the PLAN strategy, while in the control class the teacher uses the same method that teachers usually use, namely the conventional method.

In the experimental class the teacher uses the PLAN strategy in the implementation of learning activities and implementation in the classroom can be describe as follow:

1. First, the teacher divides the students into six groups, each groups consist of five people, after that the teacher gives a narrative text to each group. The teacher asks students to read the text that has been given for 10 minutes.
2. Second, the teacher begins to apply the PLAN strategy by writing a concept map on the blackboard and then students fill in one by

one part of the concept map according to the topic taken from the text.

3. Third, the teacher asks students for ideas related to this topic according to the text that has been given later on the blackboard.
4. Fourth, during the discussion, the teacher asked several students to take turns coming forward to complete the concept map. And finally, ask students to copy the PLAN strategy concept map that has been written and discussed on the blackboard in their respective books.
5. The last is the activity of teacher distributing material resume, the teacher provides information related to learning which will be discussed next week then the teacher and students learn by praying.

Meanwhile, in the control class, the English teacher taught using conventional methods. It means that the teacher teaches usual, but the teaching I do in the control class is almost the same as the experimental class. First the teachers divides the students into 6 groups consisting of 5 people for 1 group, then the students give the narrative text to the students and the students read the text within 10 minutes. But for this class they summarize themselves from the text without using a concept map.

In the learning process for five meetings there are several challenges faced by researchers which can be described as:

1. in the first meeting, students did not understand narrative text, starting from the definition, generic structure, purpose narrative text and characteristic of the text. In addition, students also do not know about the PLAN strategy that researchers use for this study. They do not know how to use this strategy in the learning process

because they usually use conventional learning method in the classroom.

2. The second meeting the students had difficulty understanding the content of the text because their vocabulary was still low and they took a long time to understand. They have difficulty in determining the main idea and supporting paragraph.
3. The third meeting, is still the same as the last meeting, namely students still cannot understand the content of the text as a whole because of low vocabulary. In this section the teacher explains about people and does not know clearly what is usually used to describe people of animals. Students do not what is means by reference.
4. The fourth meeting the students did not understand how to find the important points in the text.
5. The last meeting, students were able to distinguish the characteristics of narrative text, but some students still had difficulty finding main and supporting ideas and finding specific information in the text.

The progress provided by the teacher during the reaching and learning process can be described as:

1. The first meeting, the teacher explain the definition, generic structure, characteristic of the narrative text and is the purpose and then explains the PLAN strategy using concept maps as a strategy that will be used to facilitate them in the process of understanding text. Finally, crate a concept map on the board by writing the structure and general objectives in the text. Then the teacher explains to the students which parts are included in the characteristic and generic structure sections.

2. The second meeting, the teacher and students both translated the text as a whole and told about the vocabulary that was foreign to them. Explain in detail the difference between the main idea and supporting paragraph in the text. Look for complication and solutions in the story. To make it easier to understand, the teacher made a map on the blackboard and grouped it into several branches, defining characteristics and generic structures on the map.
3. The third meeting, the teacher explains and translates the text so that they have started to understand the contents of the text as a whole. The teacher explains to students that a story in a narrative text must have a problem but there is a resolution, whether it's a story about animals, fairy tales, or history, it will be explained in detail which parts usually arise as a problem in the story. After that, the teacher makes a concept map for the text.
4. The fourth meeting, this meeting explains to students what they need to do to be able to find the important points in each text. After finding, the teacher makes several branches so that the important points can be reached by students.
5. The last meeting, gave assignments so that students were able to explain the part of finding the main idea and starting the problem in the story in the text and the resolution in the text and applying it to the concept map.

Table 4.2
Data from pre-test and post test of control class

No	Students	Score	
		Pretest	Post test
1	Acih Permatasi	60	65
2	Ahmad Saepul Anwar	55	65
3	Alpan Herdiana	75	85
4	Anasrul Fikri	45	55
5	Anita	55	60
6	Arnawati	60	60
7	Cindy Maulidiya	70	80
8	Defika Agustina Maharani	65	70
9	Dwi Kartika	55	75
10	Fahri Abdilah	45	65
11	Gita Aulia	60	65

12	Herni Hernawati	65	70
13	Ina Mahesa Herin Sabrina	65	70
14	Isham	50	55
15	Karisah	60	60
16	M. Rojab Ramjani	55	60
17	Maria Zulfah	70	70
18	Mila Junianti	75	80
19	Muldia Iwandi Subhana	65	70
20	Nurhalim	50	60
21	Nurul Aeni	55	65
22	Rendi Hadrani	65	70
23	Ridho Rizki	60	60
24	Riska Ismayanti	65	70
25	Ruyani	55	65
26	Siti Nurazizah	60	65

27	Sofyan Nur	50	60
28	Surya Dinata	55	65
29	Vina Nuraida	70	80
30	Yoga Adi Priyatna	50	65
Σ		1790	1985
X		59.67	66.17

Based on the table above, there are pre-test and post-test scores. Pre-test scores were taken at the first meeting. In the control class there is no treatment as in the experimental class to take the post-test scores.

The result were taken from a sample of 30 students, each of which has the lowest and highest scores. The lowest score in the pre-test the control class was 45 while the highest score was 75 with and average of 59,67. The lowest score in the post-test in the control class was 55 while the highest score was 85 with an average of 66,17.

With the calculation below:

$$M1 = \frac{\Sigma x^2}{N^2}$$

$$= \frac{1985}{30} = 66,17$$

$$\begin{aligned}
 M2 &= \frac{\Sigma x1}{N1} \\
 &= \frac{1790}{30} = 59,67
 \end{aligned}$$

Note: M1 = Mean (post-test)
 M2 = Mean (pre-test)
 X1 = Students' score (post-test)
 X2 = Students' score (pre-test)
 N = Number of students
 M = M1-M2
 = 66,17 - 59,67
 = 6,5

Note: M = Mean
 M1 = Mean of Post-test
 M2 = Mean of Pre-test

B. The Data Analysis

After the writer got the data, there was a difference between the experimental class and the control class, to see the difference between the experimental class and control class, then a t-test was performed with a significant level of 5%. If the t test > t table at a significance of 5%, then H₁ is accepted, this indicates that there is a difference in the effectiveness of predict, locate, add and note (PLAN) on reading comprehension between the experimental class and the control class. And the author uses following steps:

Table 4.3**The score of Distribution Frequency**

No	x1	x2	x1	x2	x1 ²	x2 ²
1	75	65	1.83	-1.17	3.36	1.37
2	65	65	-8.17	-1.17	58.78	1.37
3	70	85	-3.17	18.83	10.03	354.57
4	80	55	6.83	-11.17	46.69	124.77
5	75	60	1.83	-6.17	3.36	38.07
6	65	60	-8.17	-6.17	66.69	38.07
7	80	75	6.83	8.83	46.69	77.97
8	75	70	1.83	3.83	3.36	14.67
9	85	60	11.83	-6.17	140.03	38.07
10	70	65	-3.17	-1.17	10.03	1.37
11	70	65	-3.17	-1.17	10.03	1.37
12	75	70	1.83	3.83	3.36	14.67
13	80	70	6.83	3.83	46.69	14.67
14	65	55	-8.17	-11.17	66.69	124.77

15	60	60	-13.17	-6.17	173.36	38.07
16	75	60	1.83	-6.17	3.36	38.07
17	70	70	-3.17	3.83	10.03	14.67
18	80	80	6.83	13.83	46.69	191.27
19	75	70	1.83	3.83	3.36	14.67
20	70	60	-3.17	-6.17	10.03	38.07
21	65	65	-8.17	-1.17	66.69	1.37
22	75	70	1.83	3.83	3.36	14.67
23	75	60	1.83	-6.17	3.36	38.07
24	85	70	11.83	3.83	140.03	14.67
25	65	65	-8.17	-1.17	66.69	1.37
26	65	65	-8.17	-1.17	66.69	1.37
27	70	60	-3.17	-6.17	10.03	38.07
28	75	65	1.83	-1.17	3.36	1.37
29	80	80	6.83	13.83	46.69	191.27
30	80	65	6.83	-1.17	46.69	1.37
Σ	2195	1985			1216.25	1484.17

Note:

x_1 = Score Post-Test (Experiment Class)

x_2 = Score Post-Test (Control Class)

X_1^1 = The Squared Value of X_1

X_2^2 = The Squared Value of X_2

X_1 = $x_1 - M_1$

X_2 = $x_2 - M_1$

Df = $N_1 + N_2 - 2$

$$= 30 + 30 - 2$$

$$= 58$$

$$\begin{aligned}
 t &= \frac{M_1 - M_2}{\sqrt{\frac{(\sum x_1^2 + x_2^2)(N_1 + N_2)}{(N_1 + N_2 - 2)N_1.N_2}}} \\
 &= \frac{73,17 - 66,17}{\sqrt{\frac{(1216,25 + 1484,17)(30 + 30)}{(30 + 30 - 2)30.30}}} \\
 &= \frac{7}{\sqrt{\left(\frac{2700,42}{58}\right)\left(\frac{60}{900}\right)}} \\
 &= \frac{7}{\sqrt{(46,55)(0,07)}} \\
 &= \frac{7}{6,82 \cdot 0,26} \\
 &= \frac{7}{1,7} = 4,11
 \end{aligned}$$

C. Interpretation Data

Researchers conducted research in two classes, namely the experimental class and the control class to find out how the reading comprehension of class XI students was and whether the PLAN strategy was effective on reading comprehension of class XI students at SMA Negeri 10 Pandeglang.

1. Students learn reading comprehension before using the PLAN strategy, they do not understand the reading content of the narrative text given by the researcher.
2. Students learn reading comprehension after using the PLAN strategy they are able understand the reading content of the narrative text given by the researcher, beside that students are also able to identify the text.
3. The significant effect of PLAN strategy to students' reading comprehension based on the results of data analysis, significant data was obtained between the experimental class and the control class using the PLAN strategy on the effectiveness of reading comprehension. Researchers know that the average value of experimental class is 60,67 on pre-test and 73,17 post-test. Meanwhile, the mean score of the control class was 59,67 in the pre-test and 66.17 in the post-test. Looking at the conclusion above, the experimental class has increased by 12,5 point. This is better than the control class which rose 6,5 points. H_a (Alternative Hypothesis): There is a significant difference in students' reading comprehension achievement between students who are taught using the PLAN strategy and students who are taught without using the PLAN strategy.

H_0 (Null Hypothesis): There is not significant difference in students' reading comprehension achievement between students who are taught using the PLAN strategy and students who are taught without using the PLAN strategy.

Before deciding on the results of the hypothesis, the researcher proposes an interpretation of the following procedures:

- a. $H_0 = t_{\text{observation}} < t_{\text{table}}$. this means that there is no significant effectiveness in writing students narrative texts using the predict, locate, add and note strategy.
- b. $H_a = t_{\text{observation}} > t_{\text{table}}$. this means there is significant the effectiveness students'.

According to the data, it can be concluded that the T observation value is greater than the T table. $t_{\text{observation}} = 4,11 > t_{\text{table}} = 2,00$ (5%) then H_0 is rejected and H_a is accepted. The result showed that the experimental class was better than the control class after the pre-test and post-test were carried out in each class. In the experimental class the average value of the pre-test gets 60,67 and in the control class the average value of the pre-test gets 59,67. While the experimental class the average value of the post-test gets 73,17 and in the control class the average value of the post-test test gain 66,17 the highest value each class was obtained form the experimental class, namely class X IPA 1 with a value of 85. In statistical calculations obtained T observation = 4,11 and T table = 2,00 with a significance level of 5%. Means that t count is greater that t table. so it can be concluded that H_a is accepted, which means the effectiveness of reading

comprehension for class XI SMA Negeri 10 Pandeglang students'.

Therefore, the effectiveness of reading comprehension in learning using the PLAN strategy has a significant increase in student learning outcomes at SMAN 10 Pandeglang.