

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSIONS

4.1. The Preliminary Study

In vocabulary learning, students in class VIII-1 of SMP Swasta Al-Washliyah 26 Medan are less interested in English vocabulary, because the pronunciation must be different but not like in written form. They have low motivation, which makes their vocabulary mastery not as expected by the researcher. In addition, the English teacher was not qualified in teaching English, so she could not choose creative techniques to teach her students. This was known by the researcher when she entered the classroom and observed the teaching and learning process in this school. In the preliminary study, the researcher conducted an initial test. This test aims to measure students' mastery of vocabulary. 30 students took the preliminary test, the test consisted of 20 matching questions. The purpose of giving the initial test by giving matching questions is to find out whether in a limited time students can find the correct answer. Only some students completed the preliminary test and scored well. That is, there are still many who score below The Minimum Completeness Criteria.

4.1.1. The Result of Pre-Test

The Pre-test was conducted as the preliminary study or done before Classroom Action Research (CAR) to identify the students' real competence and problem in vocabulary. In the Pre-test, the students were tasked to create some vocabulary related to nouns. The vocabulary of the

students has to be recorded to get empirical data. There were 20 vocabulary that they must master. The words came from objects in the classroom. In doing the test, the students worked for 40 minutes. This Pre-test conducted on Wednesday May 31, 2023.

Table 4.1 of The Students' Score in Pre-Test

No.	Initial of Students	Pre-Test
1	MNFA	50
2	MR	65
3	DWH	65
4	MR	40
5	MH	65
6	MRS	65
7	FRR	45
8	DSN	60
9	JVR	65
10	AA	50
11	KPT	40
12	PH	60
13	NA	60
14	PP	65
15	ES	50

16	ZS	60
17	IA	75
18	SR	50
19	SN	40
20	SM	50
21	AS	50
22	SR	85
23	SS	50
24	NN	60
25	FA	75
26	DPS	60
27	MRR	50
28	DRA	60
29	RS	75
30	PW	60
TOTAL		$\Sigma x = 1,745$
		$X = 58,1$

To get the result of Pre-test, firstly the researcher calculated the mean

score:

$$X = \frac{\Sigma x}{\Sigma N}$$

$$X = \frac{1,745}{30}$$

$$X = 58,1$$

Then, to the percentage of students who passed The Minimum Completeness Criteria score, the researcher used the following formula:

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

$$P = \frac{4 \times 100\%}{30}$$

$$P = 13,3\%$$

Based on the result of the Pre-test, the data shows that the mean score of Pre-test is 58,1. There were only 4 students or 13,3% of the students who got the score The Minimum Completeness Criteria meanwhile the other 26 students were below that criterion. From the analyzing, it could be seen that almost of VIII-1 grade of SMP Swasta Al-Washliyah 26 Medan students' vocabulary was still very low.

4.2. The First Cycle of CAR

4.2.1. Planning

The research collaborated with her collaborator (in this case is the teacher) to plan actions related preparing Problem Plane Game Method, learning materials and media, and determining success criteria. In this phase, the researcher made a planning for the Action Research based upon the problems faced by students about vocabulary.

Besides of making lesson plan, the researcher also prepared observation sheets to observe the students and researcher's activities in teaching learning process whether they were in accordance with the previously

made lesson plans or not. And the researcher also prepared the Post-test 1 to collect data, to determine the increase in students' scores from Pre-test to Post-test.

Next, the researcher and collaborator determine the criteria of success. The criteria of success were 75% of the students' vocabulary score achieved The Minimum Completeness Criteria English (75.0) or above 75% of students participated in English vocabulary class.

4.2.2. Implementing

The action of Cycle I was done by implemented the teaching learning process based on lesson plan had been made. In the first meeting, before involving students in Problem Plane Game Method, the researcher acted as a teacher and conducted learning in accordance with the lesson plan that had been made previously. (1) The researcher asked the students to listen to the explanation the procedure of Problem Plane Game Method. But before the teaching learning process run, the researcher had been doing explanation about using Problem Plane Game Method in their mind, in order they would understand about the technique. (2) The researcher giving the topic to the students. It meant the researcher was thought them about vocabulary, automatically they had new words. It made them easily to understand the sentences and they were able to create the good sentences. (3) Teacher asked the students to pronounce and spell the words. In teaching learning process, the researcher gave them a new word written on the whiteboard, then the researcher pronounce the words with a

good pronunciation, and the student hit one word from another word that gummed on the whiteboard. (4) Students say the words that have been said by their friends. (5) Teacher asked the student to memorize the word before back to the chair and make the sentences correctly and logically. (6) The teacher closed the meeting and motivated the students to study hard. This step was very important before teaching learning process closed. Because the motivation would make them struggle in their learning especially in memorizing the vocabulary.

4.2.3. Observing

The observation was done how the students' behavior and what the students' problem during teaching learning process on pre, whilst, and post vocabulary activities through observation. In the first meeting, the observer watched the students were interested in the lesson given through Problem Plane Game Method, but there was the class still had a problem in divided the students into group that make the class noisy. The students had not been able to concentrate with the teacher, so they still confused in playing the game. In second meeting, the observer saw better classroom conditions. They have already know how to divided a group and the students do not make a lot of noise in the class. The students were interested in following the teacher instructions to play game through Problem Plane Game Method. However, there are still some students who do not concentrating with the teacher and disturb other friends. But outside of problem, the class could understand the lesson well.

In the Post-test 1, the students scores have increased. In the Post-test 1 students have reacted to pay more attention to the teacher and ask about material they don't know. The result of Post-test showed the mean score of the class increased to 72,3 which there were 15 students who passed The Minimum Completeness Criteria 75. The result of detail from Cycle I can be seen below. **Table 4.2 of The Students' Score in Post-Test of Cycle I**

No	Initial of Students	Post-Test I
1	MNFA	75
2	MR	80
3	DWH	70
4	MR	70
5	MH	70
6	MRS	75
7	FRR	75
8	DSN	70
9	JVR	75
10	AA	60
11	KPT	75
12	PH	75
13	NA	75
14	PP	80
15	ES	70

16	ZS	70
17	IA	85
18	SR	60
19	SN	60
20	SM	70
21	AS	60
22	SR	90
23	SS	60
24	NN	70
25	FA	80
26	DPS	75
27	MRR	70
28	DRA	75
29	RS	80
30	PW	70
TOTAL		$\Sigma x = 2,170$
		$X = 72,3$

$$X = \frac{\Sigma x}{\Sigma N}$$

$$X = \frac{2,170}{30}$$

$$X = 72,3$$

Then, to the percentage of students who passed The Minimum Completeness Criteria score, used the following formula:

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

$$P = \frac{15 \times 100\%}{30}$$

$$P = 50 \%$$

To know students' improvement score on the percentage of students' vocabulary from Pre-test up to Post-test score in Cycle I by applying the following formula :

$$P = \frac{y_1 - y}{y} \times 100\%$$

$$P = \frac{72,3 - 58,1}{58,1} \times 100\%$$

$$P = 24,4\%$$

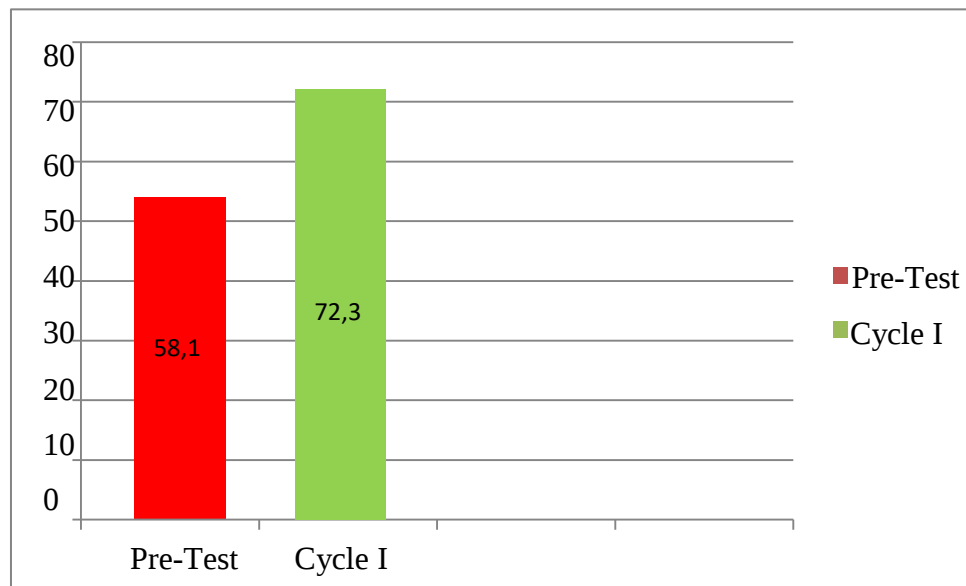


Figure 4.1 The Students' Improvement in Vocabulary Score in Pre-test and Post-Test of Cycle I

4.2.4. Reflecting

In this phase, reflecting helped the researcher and teacher to decide on what to do next. The researcher reflected on anything that has been done before. It made sure that to know whether the students improved on the students' vocabulary or not after using Problem Plane Game Method. Even though in Cycle I, there was an improvement on the students. So, because of that, the researcher needs to do again in the next cycle by reflecting on what has been done before in Cycle I.

4.3. The Second Cycle of CAR

After Cycle I had been done, it was found that students' vocabulary improved. But the researcher made sure that to know whether the students improved on the students' vocabulary or not after using Problem Plane Game Method in the next cycle by reflected anything that has been done before in Cycle I.

4.3.1. Planning

The researcher collaborated with her collaborator (in this case is the teacher) to plan actions related preparing Problem Plane Game Method, learning materials and media, and determining success criteria. In this phase, the researcher made a planning for the Action Research based upon the problems faced by students about vocabulary. Besides of making lesson plan, the researcher also prepared observation sheets to observe the students and researcher's activities in teaching learning process whether they were in accordance with the previously made lesson plans or not. And

the researcher also prepared the Post-test 2 to collect the data, to know there are some students' improvement scores from Post-test 1 to Post-test 2.

4.3.2. Implementing

In this part, the researcher implemented the teaching learning process based on lesson plan had been made. In the first meeting, before involving students in Problem Plane Game Method, the researcher acted as a teacher and conducted learning in accordance with the lesson plan that had been made previously. (1) The researcher asked the students to listen to the explanation of the procedure of Problem Plane Game Method. But before the teaching learning process run, the researcher had been doing explanation about using Problem Plane Game Method in their mind, in order they would understand about the technique. (2) The researcher giving the topic to the students. It meant the researcher was thought them about vocabulary, automatically they had new words. It made them easily to understand the sentences and they were able to create the good sentences. (3) Teacher asked the students to pronounce and spell the words. In teaching learning process, the researcher gave them a new word written on the whiteboard, then the researcher pronounce the words with a good pronunciation, and the student hit one word from another word that gummed on the whiteboard. (4) Students pronounced the words that had hit by their friend. (5) Teacher asked the student to memorize the word before back to the chair and make the sentences correctly and logically. (6)

Giving the game to the students in order the class would be more active then they must memorize the new word about noun, verb, adjective, and adverb that connected to the topics. Most of the students were very enthusiastic and serious when they play, they count the number of students who are wrong in playing the game they will have fun to make a good new word into a good sentence. They really enjoy this game.

4.3.3. Observing

The observation was done for the last time. The activity of students was observed and it showed that the condition of class was very well after using Problem Plane Game Method, there were fewer the students who did not understand how to play this game, all students become active in the activities provided by the teacher so that the classroom atmosphere becomes more lively and students are interested in participating in the lesson. The students could compare and recognize kind of noun, verb, adjective. **Table 4.3 of The Students' Score in Post-Test of Cycle II**

No	Initial of Students	Post-Test II
1	MNFA	80
2	MR	90
3	DWH	80
4	MR	80
5	MH	80
6	MRS	80

7	FRR	80
8	DSN	80
9	JVR	80
10	AA	80
11	KPT	80
12	PH	80
13	NA	80
14	PP	90
15	ES	80
16	ZS	90
17	IA	100
18	SR	80
19	SN	80
20	SM	80
21	AS	80
22	SR	100
23	SS	70
24	NN	80
25	FA	90
26	DPS	90
27	MRR	80
28	DRA	80

29	RS	90
30	PW	80
TOTAL		$\Sigma x = 2,490$ $X = 83$

From the table, the total score of the students was 2,490 and to see the mean of the students in the test, the researcher applied the following formula:

$$X = \frac{\Sigma x}{\Sigma N}$$

$$X = \frac{2,490}{30}$$

$$X = 83$$

Then, to the percentage of students who passed The Minimum Completeness Criteria score, used the following formula:

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

$$P = \frac{29 \times 100\%}{30}$$

$$P = 96.7\%$$

To know students' improvement score on the percentage of students' vocabulary from Pre-test up to Post-test score in Cycle II by applying the following formula :

$$P = \frac{y_1 - y}{y} \times 100\%$$

$$P = \frac{83 - 58,1}{58,1} \times 100\%$$

$$P = 42,8\%$$

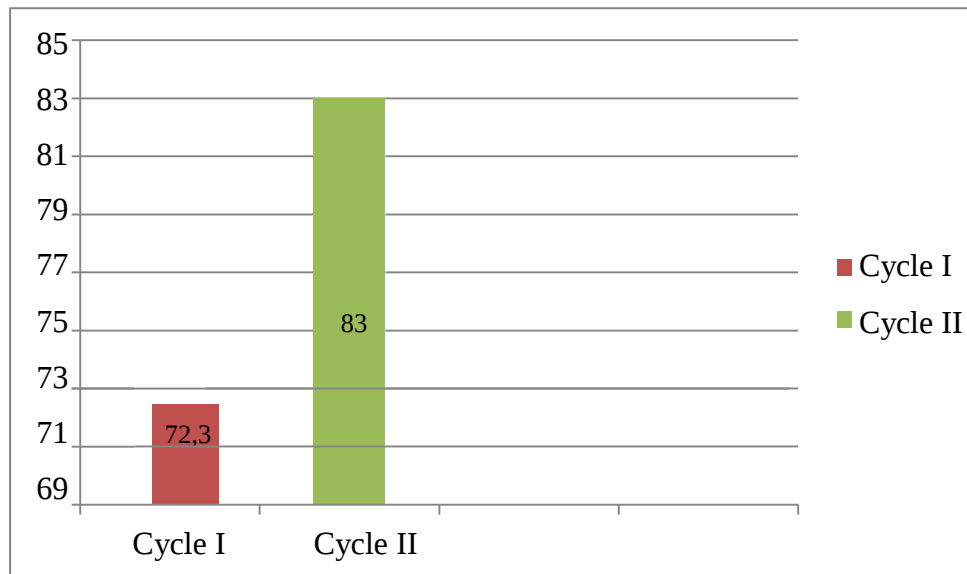


Figure 4.2 The Students' Improvement in Vocabulary Score in Pre-test and Post-Test of Cycle II

4.3.4. Reflecting

After checking the students' vocabulary mastery by giving a test, it was found that students' scores showed an improvement. Based on the observation and the result of their test, the students can use Problem Plane Game Method as their media in memorizing and retaining their vocabulary. It can be concluded that the students could improve their vocabulary mastery by using Problem Plane Game Method.

4.4. Data Analysis

This study was conducted by organizing the quantitative data and qualitative data. The quantitative data was taken by Problem Plane Game Method and the qualitative data was taken by observation sheet. Every cycle consisted of the four steps of Classroom Action Research (planning, action/implementing, observing and reflecting). The Pre-test was conducted in one meeting, Cycle I was conducted in one meeting and Cycle II was conducted in one meeting.

4.4.1. The Data Analysis of Problem Plane Game Method in Pre-Test, Cycle I and Cycle II

The research was conducted in one class with 30 sample. Here is the result of Problem Plane Game Method that students did in Pre-test, Post-test in Cycle I and Post-test in Cycle II.

1. Percentage of students who get up The Minimum completeness criteria

score :

Pre-test data : Persentase (%) = 13,3 % (4 students)

Post-test data of Cycle I : Persentase (%) = 50 % (15 students)

Post-test data of Cycle II : Persentase (%) = 96.7 % (29 students)

2. The mean score of students in every tests

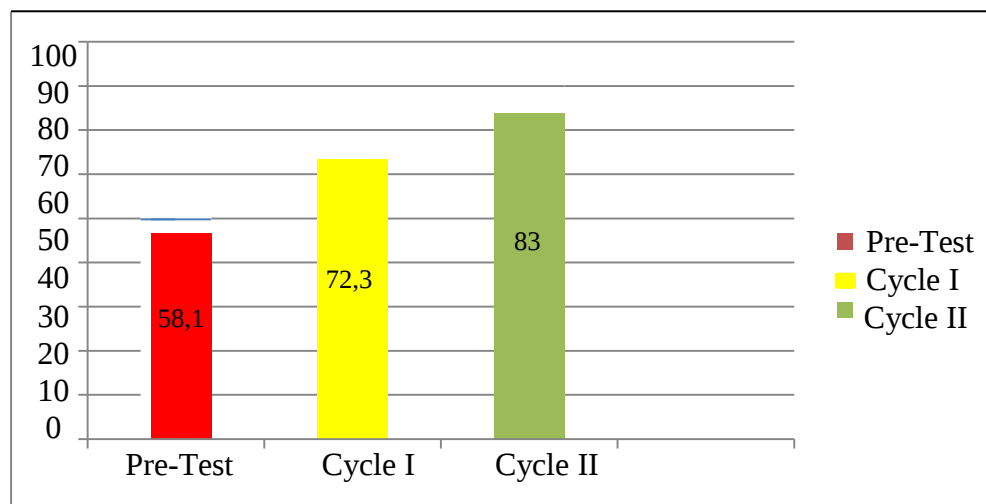


Figure 4.3 The Students' Improvement in Vocabulary Score in Pre-test, Post-Test of Cycle I and Post-Test of Cycle II

3. The students' improvement score on the percentage of students' vocabulary

from Pre-test up to Post-test score in Cycle I and Cycle II :

Cycle I

$$P = \frac{y_1 - y}{y} \times 100\%$$

$$P = \frac{72,3 - 58,1}{58,1} \times 100\%$$

$$P = 24,4\%$$

Cycle II

$$P = \frac{y_1 - y}{y} \times 100\%$$

$$P = \frac{83 - 58,1}{58,1} \times 100\%$$

$$P = 42,8\%$$

In order to know the scores of all the test, the following formula was applied to calculate individual score by applying the following formula :

$$S = \frac{R}{N} \times 100\%$$

To know the mean of students' score of assessment by applying the following formula :

$$X = \frac{\sum x}{\sum N}$$

To categorize the students who get up to The Minimum completeness criteria score, that is 75 calculated by applying the following formula :

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

To know students' improvement score on the percentage of students' vocabulary from Pre-test up to Post-test score in Cycle I and Cycle II by applying the following formula :

$$P = \frac{y_1 - y}{y} \times 100\%$$

$$P = \frac{y_2 - y}{y} \times 100\%$$

4.4.2. The Data Analysis of Observation Sheet

The researcher conducted in one class with 30 samples of VIII-1 class. The teacher was the researcher and the English teacher of the school was the observer. The observation sheets were made for 4 meetings. It was done on 27th, 31st, 3rd, 7th June 2023 at SMP Swasta Al-Washliyah 26 Medan. Based on the data of observation sheets shown that learning done during for 4 times meeting was very fluent, well time from the inception of learning to the competition of learning and students' vocabulary from Pre-test to Post-test of Cycle I and Cycle II improved after giving the treatment (vocabulary to Problem Plane Game Method).

4.5. Finding

Based on the data analysis above, it was found that vocabulary using Problem Plane Game Method gave a significant improvement in students' English vocabulary as shown in the Pre-test data, Post-test I data, and Post-test II data, there was a significant effect of achievement on students' vocabulary. The researcher focused on the learning process, test the vocabulary of the students before and after did implement the step, giving Problem Plane Game Method.

In the learning process, the students look interested and enthusiast when they know they are learning with Problem Plane Game Method. The students were happy and did not feel bored in the classroom when studying with the researcher by using Problem Plane Game Method. The students did not feel like studying when using Problem Plane Game

Method. The students were enjoyed when studying vocabulary using Problem Plane Game Method because they wanted to get knowledge. It can be seen by responses given by the students.

The comparison between Pre-test, Post-test in Cycle I and Post-test in Cycle II were in Pre-test the vocabulary of students before giving Problem Plane Game Method, the students' vocabulary was still low in English vocabulary. The students did not read and write the words in the wrong way. The mean score of the Pre-test was 58,1. After giving treatment, that was vocabulary to Problem Plane Game Method, there was an improvement in students' English vocabulary as shown in Post-test data in Cycle I. the mean score of Post-test in Cycle I was 72,3. In Cycle II of action, research got better than Cycle I. the mean score of Post-test in Cycle II was 83. The percentage of students' vocabulary from Pre-test up to Post-test score in Cycle I was 50 % or 15 students and Pre-test up to Post-test score in Cycle II was 96,7 % or 29 Students. Vocabulary to Problem Plane Game Method can improve students' English vocabulary from 24,4% the improvement of students. The improvement is 42,8% of students. Based on the findings above, the students get improvement in vocabulary through Problem Plane Game Method.

4.6. Discussion

This research was conducted to find out the improvement of Students' Vocabulary Mastery by Using Problem Plane Game Method. The improvement of students could be seen on Pre-test, Cycle I, and Cycle II data and the learning process.

The result of Problem Plane Game Method test has shown the mean score of the Pre-test was 58,1. After giving the treatment through Problem Plane Game Method to English Vocabulary, there was an improvement in students' Vocabulary Mastery as shown in Post-test I data in Cycle I. The mean score of the Post-test in Cycle I was 72,3. In Cycle II of action, research got better than Cycle I because the students delved into the material that had given done in Cycle I. The mean score of the Post-test in Cycle II was 83. Problem Plane Game Method can improve students' Vocabulary Mastery.

As already explained in the previous chapters that Problem Plane Game Method to vocabulary has same benefits for students not only for hear but could make students active because using Problem Plane Game Method while studying vocabulary, students will not be bored when learning English with vocabulary and students are happy when doing the learning process and also students can know the meaning of the vocabulary. The students were very enthusiast when they learning by using Problem Plane Game Method for vocabulary. This means that the students' interest in studying English especially studying about vocabulary increased.

This research is line with Miftahul Jannah (2019) with the title “Using Problem Plane Game Method for Improving Students' Vocabulary Mastery at SMP Miftahul Janah". The difference between Miftahul Jannah research and this research is the main material or media of vocabulary which in this research just focus on the verb and adjective. The similarity was focused on vocabulary to know the students' vocabulary mastery.

The research was Wulandari (2019) with the title "The Effect of Using Problem Plane Game on Vocabulary of Seventh Grade Students at MTs Nurul Hikmah Bintoro". The difference between Wulandari research and this research is that this research using classroom action research while Wulandari research using pre-experimental research. The similarity between Wulandari research and this research is to improve students' vocabulary mastery by using Problem Plane Game Method as a research instrument.

Based on the explanation the researcher said that this research was successful in Improving Students' Vocabulary Mastery using Problem Plane Game Method at the eighth grade of SMP Swasta Al-washliyah 26 Medan.