

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter presents the data findings of the research, covering description of data, hypothesis testing, and discussion.

A. Findings

As mentioned previously, the researcher wanted to know whether there was different score between the students before and after being taught by using Pelmanism Game. In this research, the researcher did a pre-experimental research about the effect of implementing Pelmanism Game on students' vocabulary learning in the third grade students at SDN Benua Anyar 10 in academic year 2018/2019. The researcher involved a class consisting of 23 students. The data were collected through administering test. The first test was pre-test done before the treatment applied to the students. The purpose was to know the students' vocabulary mastery before being the treatment. The result of pre-test showed that their vocabulary mastery was poor.

After administering the pre-test, the researcher gave treatment to the students by using Pelmanism Game. During the treatment, the students enjoyed learning and they were enthusiastic in Pelmanism Game. When treatment was finished, the researcher administered posttest to know the students' vocabulary mastery after being taught by using Pelmanism Game. Apparently, the result of the post-test showed that the students' vocabulary improved significantly.

**1. Students' Vocabulary Achievement before being Taught by Using
Pelmanism Game**

The numbers of students who took the Pre-test were 23 students. The highest score in pre-test was 80 and the lowest score was 35. This test was intended to know the students' vocabulary achievement before students got treatment. The student's vocabulary achievement in pretest was presented in table:

**Table 4.1. The Students' Achievement before using Pelmanism Game
(Pre-Test)**

Students (N)	Score of Pretest
AR	40
AP	55
CS	80
ENA	45
IR	45
MR	45
MD	55
M	45
MP	45
MFK	40
MA	55
MRD	70
MR	45
MRF	55
MRS	40
MRA	40
NAY	70
NM	60
RAR	60
RA	55
SFR	60

ZM	60
I	35

The data of students' pre-test, then were arranged in the form of frequency and percentages through score's criteria, as they were presented in the following table:

Table 4.2. The Percentages of Students' Vocabulary before using Pelmanism Game

Grade	Score	Criteria	Frequency (f)	Percentage (p)
A	91-100	Excellent	-	-
B	81-90	Very good	-	-
C	71-80	Good	1	4.35%
D	61-70	Average	2	8.69%
E	41-60	Poor	15	65.22%
F	0-40	Very poor	5	21.74%
			$\sum f = 23$	$\sum p = 100\%$

From the table 4.2, it can be concluded that the students' achievement before taught using Pelmanism Game above the average was 4.35% with good score 4.35% where the students got score range from to 71-80 with grade C. Meanwhile, there were 8.69% with average criteria where the students got score range from to 61-70 with grade D. Furthermore, there were 65.22% with poor criteria where the students got score range from 41-60 with grade E. Finally, 21.74% with very poor criteria where the students only got score range from to 0-40 with grade F. From the table above, the majority of the students still got score below the average.

2. Students' Vocabulary Achievement after being Taught by Using Pelmanism Game

After being given a treatment using Pelmanism Game, the students were given a post test. The test was same from the pre-test. Both of them had the same level of difficulties. The numbers of student who took the Post-test were 23 students. The highest score in post-test was 100 and the lowest score was 65. This test was intended to know the students' vocabulary achievement after students got treatment. The students' vocabulary achievement in post-test was presented in table:

Table 4.3. The Students' Achievement after using Pelmanism Game (Post-Test)

Student (N)	Score of posttest
AR	75
AP	65
CS	90
ENA	95
IR	85
MR	70
MD	75
M	80
MP	80
MFK	75
MA	85
MRD	100
MR	80
MRF	90
MRS	80
MRA	85
NAY	90

NM	85
RAR	75
RA	85
SFR	90
ZM	90
I	80

The data of students' post-test, then were arranged in the form of frequency and percentages through score's criteria, as it was presented in the following table:

Table 4.4. The Percentages of Students' Vocabulary After Using Pelmanism Game

Grade	Score	Criteria	Frequency (f)	Percentage (p)
A	91-100	Excellent	2	8.69%
B	81-90	Very good	10	43.48%
C	71-80	Good	9	39.14%
D	61-70	Average	2	8.69%
E	41-60	Poor	-	-
F	0-40	Very poor	-	-
			$\sum f = 23$	$\sum p = 100\%$

From the criteria on table 4.4, it can be concluded that the students who achieved above the average was 91.31% with excellent score 8.69% where the students got score range 91-100 with grade A, very good score 43.48% where the students got score range 81-90 with grade B and good score 39.14% where the students got score range 81-90 with grade C. Meanwhile, there were 8.69% with

average criteria where the students got score range from to 61-70 with grade D.

From the table above, the majority of the students got score upper the average.

3. The Significance Result of Pelmanism Game for Students' Vocabulary Mastery Before and After Taught Using Pelmanism Game

This part showed the differences students vocabulary achievement before and after taught by using pelmanism game. The writer used the SPSS 22 program to find out the significance. Here, the result of pre-test and post-test of one group experimental by gained score by using pelmanism game.

Table 4.5. The Result of Pre-test and Post-test of One Group Experimental by Gained Score by Using Pelmanism Game

Student (N)	Pretest	Posttest	Gained Score
AR	40	75	35
AP	55	65	10
CS	80	90	10
ENA	45	95	50
IR	45	85	40
MR	45	70	25
MD	55	75	20
M	45	80	35
MP	45	80	35
MFK	40	75	35
MA	55	85	30
MRD	70	100	30
MR	45	80	35
MRF	55	90	35
MRS	40	80	40
MRA	40	85	45
NAY	70	90	20
NM	60	85	25

RAR	60	75	15
RA	55	85	30
SFR	60	90	30
ZM	60	90	30
I	35	80	45
Total	1200	1905	705

1. Determine mean of pre-test of experimental class

$$\begin{aligned}
 M_{x_1} &= \frac{\Sigma x}{N} \\
 &= \frac{1200}{23} \\
 &= 52.17
 \end{aligned}$$

2. Determine mean of post-test of experimental class

$$\begin{aligned}
 M_{y_1} &= \frac{\Sigma y}{N} \\
 &= \frac{1905}{23} \\
 &= 82.83
 \end{aligned}$$

3. Determining mean of difference of pretest and posttest

$$\begin{aligned}
 M_{D_1} &= \frac{\Sigma D}{N} \\
 &= \frac{705}{23} \\
 &= 30.66
 \end{aligned}$$

According to the result of pre-test and post-test from the experimental class, it shows that the lowest score of pre-test was 35 and the highest score was 80. Besides, the lowest score of post-test was 65 and the highest score was 100. The mean of pre-test was 52.17 and post-test 82.83. After conducting pre-test and

post-test, the mean of gained score that the teacher got was 30.66. The mean of post-test after the students got treatment using English pelmanism game was higher than the mean of pre-test before the students got treatment.

a. Analysis of Data

1) Normality Test

According to Sugiyono (2006, p.77), normality test is a test that use to test whether normal or not the distribution of data. The writer used SPSS version 22 program to test the normality of the data. The normality test in this research used the *Shapiro-Wilk* formula, based on the degree of significance 0.05 the data is considered normally distributed if the significance >0.05 . If the significance <0.05 , the data is not normally distributed.

Table 4.6. Normality of Pre-test and Post-test

	Shapiro-Wilk		
	Statistic	df	Sig.
PRETEST	.924	23	.082
POSTTEST	.970	23	.687

*. This is a lower bound of the true significance.

e. Lilliefors Significance Correction

Based on table 4.8, it can be seen that the significant from normality test (pre-test) of Shapiro-Wilk shows 0.082. Therefore, the significant score is higher than 0.05 ($0.082 > 0.05$), it means that H_0 is accepted so the data is normally

distributed. And also it can be seen that the significant from normality test (post-test) of Shapiro-Wilk shows 0.687, therefore the significant score is higher than 0.05 ($0.687 > 0.05$). In other words, H_0 is accepted so the data is normally distributed.

2) Homogeneity Test

Based on the calculation of normality, the writer got the result that all data in pre-test and post-test of experiment class have been normality distributed. The next step of the calculation was finding the homogeneity of the data. The purpose of this calculation was to see whether the data/sample in class homogenous or heterogeneous.

Table 4.7. Test of Homogeneity of Variances

PRETEST

Levene Statistic	df1	df2	Sig.
2.504	3	15	.099

Based on the table above, it can be seen that the result of homogeneity test *Levene Statistic* score shows 2.504 with the significant 0.099. Therefore, the significant score is higher than 0.05 ($0.099 > 0.05$). It means that the sample was homogeneous.

Table 4.8. Test of Homogeneity of Variances

POSTTEST

Levene Statistic	df1	df2	Sig.
.614	4	16	.659

Based on the table above, it can be seen that the result of homogeneity test *Levene Statistic* score shows 614 with the significant 0.659. Therefore, the significant score is higher than 0.05 ($0.659 > 0.05$). It means that the sample was homogeneous.

3) Hypothesis Testing Using Paired Sample T-Test

In order to test the hypothesis, this research used *Paired Sample T Test*. *Paired Sample T Test* can be used to test whether there is a progress made by students if we compare the means of the scores before and after a teaching learning process. In this research, *Paired Sample T Test* calculated the means of pre-test and post-test score and then the writer had the output of significance value (P value), if the significance value <0.05 , it is concluded that hypothesis is accepted, but if the significance value >0.05 it is concluded that hypothesis is rejected.

Table 4.9. Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Pre-Test	52.17	23	11.464	2.390
Post-Test	82.83	23	8.233	1.717

Based on the table above, it can be seen that the result of paired sample statistic for pre-test and post-test. The number of students are 23, the mean score for pre-test is 52.17 with standard deviation 11.464 and standard error mean 2.390, while the mean score for post-test is 82.83 with standard deviation 8.233 and standard error mean 1.717.

Table 4.10. Paired Samples Test

	Paired Differences					t	df	Sig. (2- tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pre-Test – Post-Test	-30.652	10.586	2.207	-35.230	-26.075	-13.887	22	.000

Based on the table above, it can be seen that the result of analysis using T-test. The mean pre-test and post-test was (-30.652), standard deviation was (10.586), mean standard error was (2.207). The lower different was (-35.230), while the upper different was (-26.075). The result test $t = (-13.887)$ with $df = 22$ and significance 0.000.

Interpretation toward t value conducted by two methods:

1. Based on the test score t compared with t_v (t value) with t_t (t table), where $df = 22$, the result of numeral: 2,074 for standard significant 5% and 2,820 for standard significant 1%. With $t_0 = -13.887$, it means that more large from t table (symbol minus in this matter ignored at standard significant 5% as well at standard significant 1%, it means the hypothesis null was rejected).
2. Based on the large of digit significant. In this case decision taken from the following consideration:
 - a. If probability > 0.05 then hypothesis null was accepted
 - b. If probability < 0.05 then hypothesis null was rejected

With the numeral of significant value $0.000 <$ than significant level 0.05 , then the hypothesis null stated that there is no significant different score by using Pelmanism Game on students' vocabulary learning in the third grade students at SDN Benua Anyar 10 Banjarmasin was rejected.

4) Hypothesis Testing

The hypothesis testing is used to prove whether the hypothesis propose in this research is accepted or not. The hypothesis of this research is, there is an effect of students' vocabulary achievement after being taught through playing pelmanism game as media.

The hypothesis testing of this study was as follows:

1. If the significant value $<$ significant level, the alternative hypothesis (H_a) was accepted and null hypothesis (H_o) was rejected. It means that there was different score on the students' vocabulary achievement before and after being taught by Pelmanism Game. The different was significant.
2. If the significant value $>$ significant level, the null hypothesis (H_o) was accepted and alternative hypothesis (H_a) was rejected. It means that there was not different score on the students' vocabulary achievement before and after being taught by Pelmanism Game. The different was not significant.

Based on statistical calculation using SPSS 22 program, the researcher gave interpretation to significant value. The significant value of the research was 0.000 , significant level 0.05 and the t-table $2,074$ the $df : 22$ whereas the t-count

13.887. When the significant value (0.000) < significant level (0.05) the alternative hypothesis (Ha) was accepted and the null hypothesis (Ho) was rejected. While significant value (0.000) > significant level (0.05) the null hypothesis (Ho) was accepted and the alternative hypothesis (Ha) was rejected. Because significant value (0.000) was smaller than significant level (0.05), it can be concluded that alternative hypothesis (Ha) was accepted and the null hypothesis (Ho) was rejected. It means that there is different score on the students' vocabulary achievement before and after being taught by Pelmanism Game. There was different on *Paired Sample Statistic* that the mean before taught Pelmanism Game is 52.17, and after being taught using Pelmanism Game was 82.83, it means that the mean before being taught using Pelmanism Game was lower than after being taught using Pelmanism Game. Thus, it can be concluded that there is significant different achievement between students' vocabulary mastery before and after taught using pelmanism game in the fifth grade students of SDN Benua Anyar 10.

B. Discussion

As it was previously stated that the T-test is used to check the significant different in scores achieved by one group. The data analysis shows that $t_{table} (5\%=2.074) < t_{test} (13.887) > t_{table} (1\%=2.820)$. It means that the alternative hypothesis (Ha) is accepted and null hypothesis (Ho) is rejected. It shows that there is significant different score of the students' between before and after being taught by using Pelmanism Game in teaching vocabulary.

Based on the research method, the study is done into three steps. First step is preliminary study where the researcher wants to know the students' vocabulary mastery by administering a pretest. The second step is giving a treatment to the students. The treatment here is teaching vocabulary by using pelmanism game. The students are given material of new vocabulary that these vocabs are never taught at school. After getting treatment, the last step the researcher giving a posttest to the students.

In the pretest, the average score was 52.17. While, the average score in posttest was 82.83. The score showed that posttest was better than pretest. It can be concluded that the students got good achievement in mastering vocabulary after taught using Pelmanism Game.

According to the result of average score above, teaching vocabulary by using pelmanism game makes the students understand the meaning of vocabularies easily and they can write correct of vocabulary. Pelmanism game is an alternative way for the students in learning English especially in vocabulary. Pelmanism game is able create a good atmosphere in the classroom. By playing in a small group, this game offers lower anxiety and encourages the students to take part. They want to cooperate, and compete with their friends without being aggressive. This condition is able to motivate the students to learn. This reason is based on the result of test after getting treatment.

Games are always loved by children. Games are related to fun, movement, and competition. Children can get bored easily if there is the same activity. So the teacher must apply a good and creative method to keep the student's concentration

in learning the material. It is important for teachers because the ultimate goal is to teach students in a good and effective way. According to Norton (1990, p.27) the way young learners learn language (English) is learning by doing. By doing this pelmanism game, the students actively involved in their learning that will make them more easily remember the words. While playing this game the students must read the key vocabulary, understand meaning, and also attempt to remember the location of the cards. This activity helps the students to recognize the words, understand the words, and improve self esteem and sense of achievement.

Pelmanism game uses picture cards that attract the students' attention. According to Wright (1989, p.17-18), pictures can motivate the students and make them want to pay attention and take part in the lesson. By using picture, the students are expected to recognize the object. Through picture, students will not get the first hand experience, but at least they will learn to understand the object of learning from visual and store the meaning of the words into their mind. In this research, the writer used picture of vegetables and students should pair the words and the pictures available correctly in group.

Based on previous research about pelmanism game as teaching media as the writer mentioned before, entitled "*Improving Students' Vocabulary through Pelmanism Game*" by Halida Zia, Albert Rufinus and Zainal Arifin (2016), and entitled "*Using Pelmanism Game to Help Students in Remembering Vocabulary at Elementary School*" by Risnawati and An Fauzia Syafei (2017) showed that playing pelmanism game as teaching media can improve mastering vocabulary. In line with this research, the elementary students

can enhance their vocabulary mastery too. Therefore, pelmanisme game can use in classroom as teaching media, because this game has many advantages to improve students' vocabulary mastery.

From the explanation above, the implementation of using pelmanism game teaching and learning process gives a positive effect on the students' achievement, because they can study vocabulary easily and relax without any burden. It can be done because by fun learning, information can be understood and maintained well. In other words, students will learn better if they are motivated and want to do it. The description above implies that using pelmanism game offers fun situation for the learner, so that they can learn better. Consequently, playing games in classroom can motivate, promote learners' interaction, improve their vocabulary and increase their achievement.