CHAPTER IV

FINDING AND DISCUSSION

A. Research Finding

1. The Data finding Description of EdPuzzle and Conventional Method

The data had been acquired would be processed, so the score had been got meaning. Data processing in a study was conducted to find answers from the formulation of problems that have been proposed previously. Data analysis was performed using statistical software program of Computer Product Service and Service Solution (SPSS) Version 23.

The data generated through the write test recount text in the form of numbers obtained from two sample groups, namely experimental group and Control Group. Instruments were given to each group twice (at pre-test and post-test). For more details, the researcher would describe the results of the data from each group taken.

a. Recount Text Learning Result

The authors presented general research results which include the number of samples, mean, standard deviation or standard deviation, variance, lowest score in the group and the highest score of each group (control and experimental). The data in this table would give a rough idea of the data generated in each group. Data was represented by the format of table and graph presentation.

Table 4.0 Description of Recount Text Learning Result

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Post-test Control	34	75	90	82.32	5.267	27.741
Post-test Experiment	34	70	96	86.00	6.410	41.091
Pre-test Control	34	73	90	81.26	5.241	27.473
Pre-test Experiment	34	73	90	81.76	5.805	33.701
Valid N (list wise)	34					

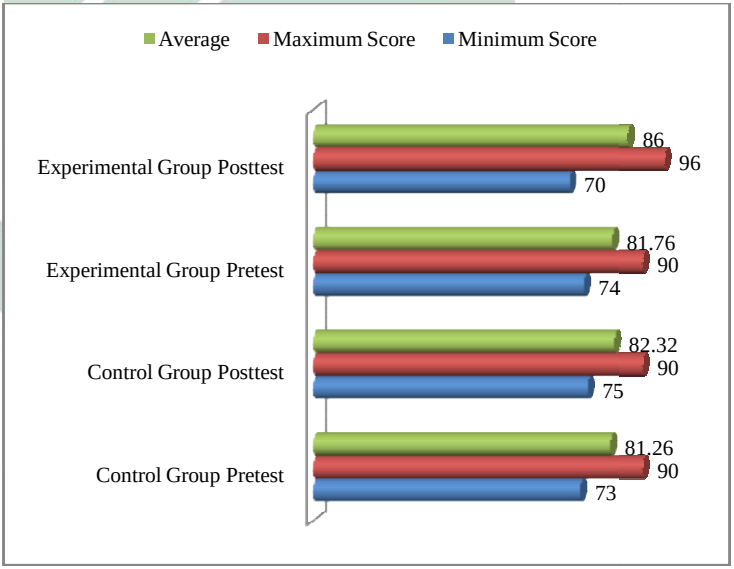

Figure 4.0**Description of Recount Text Learning Result**

Based on the tables and graphics that have been presented, the pre-test scores of the two classes had a similar average. For control group, the class had an average of 81.26 while the experimental group class had an average of 81.76. It could be said that the ability of students from each class more or less the same.

As for the post test of both classes, it was found a significant difference. Control group class reached an average of 82.32 compared with Experimental group class that reached 86.00. The average difference in the post test (82.32 <86.00) illustrated that the strategy of EdPuzzle was quite successfully applied to the experimental class.

b. The EdPuzzle and Conventional Learning Progress

In this chapter researchers explained about the progress of teach students who get treatment using EdPuzzle media and conventional media using LKS.

1) Experimental Group (Use EdPuzzle)

At this stage, the researchers presented the learning progress of the experimental group when using the Edpuzzle media. In the treatment stage, the researcher gave some tasks as an exercise for the students to give more understanding to the recount text. The score results were presented in Table 4.1.

Table 4.1 the Learning Progress by Using EdPuzzle

Group	Treatment 1	Treatment 2	Treatment 3
Experimental Group	80	81.47059	87.14706

Based on the table, it could be stated that the development of learning using EdPuzle had a pretty good impact. In the first treatment students

got video 1 on the definition and generic structure of Recount Text, in the video also inserted some quiz about the material contained in video 1. The result of the average score obtained on this treatment was 80.00.

In the second treatment, students got video 2 with material about the language feature of recount text. As in video1, in this video, students also got quizzes to reinforce their understanding. The results of treatment 2 indicated a development. The average student score of 80.00 initially increased to 81.47059.

Furthermore, on the 3rd treatment, the students got video3 which contains about a short story. In this video, the students were only asked to view and listen to the video repeatedly. However, the teacher had instructed that after studying video 3, while in class the student would get a paper containing the transcript of video 3 and some questions to answer. Before doing the task, in the class, teacher invited students to relearn the materials have been thought. The result of this activity was quite satisfactory, because the average score of students jumped quite drastic, from 81.47059 to 87.14706. This indicated that Edpuzzle treatment was quite satisfactory.

2) Control Group (Use a Conventional Media)

At this stage, the researchers presented the learning progress of the group controls while using conventional media. Researcher provided some tasks as an exercise for students to give more understanding to recount text by way of learning which was usually done using LKS. The score results were presented in Table 4.2

Table 4.2 Conventional Learning (LKS) Progress

Group	Assignment 1	Assignment 2	Assignment 3
Control Group	79.02941	80.38235	83.29412

The result of using conventional media using LKS book was similar to Edpuzzle, but its development was not significant enough.

In the first activity, the average student score was 79.02941. Different points compared to the Edpuzzle class that had an average score of 80.00. In this first activity, the teacher explained directly in the classroom with the media and materials that already exist on the LKS. The material taught in the form of understanding and generic structure of the recount text.

In the second activity, the teacher explained the language feature of the text recount, and then asked the students to indicate the language feature of the story written in the LKS. In this activity, students got an average score of 80.38235, which indicated that there was a development of learning outcomes.

In the third activity, there was a fairly good score development, where the students got an average score of 83.29412. In this activity, students were asked to read a story and indicate the generic structure and language features of the story in the text. In addition, they were also asked to fill some questions related to the existing content on the story.

3) The differences of EdPuzzle Learning Progress and Conventional Learning Progress

From the description above we could conclude that the two-media used have a good enough impact for the development of student learning outcomes, but EdPuzzle provided a more significant impact if compared with conventional media. To see the comparison between learning results using Edpuzzle and LKS, see table 4.3

Table 4.3 the differences of EdPuzzle Learning Progress and Conventional Learning Progress

Group	Assignment 1	Assignment 2	Assignment 3
Control Group	79.02941	80.38235	83.29412
Experimental Group	80	81.47059	87.14706

The development between tasks 1 and 2 in the experimental class and control classes was similar. However, in task 3, the table shows a significant difference between the two classes, i.e. 83.29412 compared to 87.14706. It was stated that in this study, EdPuzzle media had more good impact on student learning progress.

2. Normality Test

The first step taken by the author before doing hypothesis testing was to test the normality. The data normality test was conducted in order to obtain information about the data was normally distributed or not. In addition, the data normality test would also determine what steps to take next, which statistical analysis should be used, whether parametric or non-parametric statistics. Steps were done by inputting and analysing the data using

descriptive explore which was found in descriptive statistics in analyse data on menu SPSS version 23.

The normality test of the output produced by the SPSS 23 program had four normality analysis tests, namely Kolmogorov Smirnov, Shapiro-wilk, Normal Q-Q Plots, and DE trended normal Q-Q Plots. The four tests analysed actually support each other. For normality test, the author refers to Shapiro-wilk analysis, and QQ Plots. The authors had assumed that for the same sample size or in more than 30 people belonging to the category of large sample groups, the testing with Shapiro-wilk was highly relevant. Normality test results in this study were presented in Table 4.4.

Table 4.4 Tests of Normality

	Shapiro-Wilk					
	Statistic	**Df**	**Sig.**		**Alpha**	**Conclusion**
Pre-test Control	.938	34	.520	>	0,05	Normal
Pre-test Experiment	.881	34	.150	>		Normal
Experimental Treatment 1	.911	34	.894	>		Normal
Experimental Treatment 2	.898	34	.398	>		Normal
Experimental Treatment 3	.918	34	.140	>		Normal
Control Assignment 1	.926	34	.230	>		Normal
Control Assignment 2	.958	34	.214	>		Normal
Control Assignment 3	.962	34	.282	>		Normal
Post-test Control	.898	34	.413	>		Normal
Post-test Experiment	.932	34	.370	>		Normal

To analyse the table, there were some provisions that should be used, such as if the score of significance less

than 0.05 (<0.05) then it could be said that the data was not abnormal distribution. Whereas if the score of data significance more than 0.05 (> 0.05) then it could be stated that the data was normally distributed.

Based on the table, it could be stated that all data was normally distributed. The pre-test score data of the control group had sig. 0.520> 0.05 (Normal); the pre-test data from experimental group had sig. 0.150> 0.05 (Normal). This indicates that the two-pre-test data from each class were normally distributed.

Furthermore, experimental treatment data from 1 to 3 had sig. 0,894> 0, 05 (treatment 1 = Normal), sig.0, 398> 0, 05 (treatment 2 = Normal), sig.0, 140> 0, 05 (treatment 3 = Normal). It could be stated that the overall data from all three treatments performed on classes using EdPuzle had a normal distribution.

As for the data taken from the control class using conventional media, the three data also had a normal distribution, with the following details, assignment 1 had sig. 0.230> 0.05 (normal), assignment 2 with sig. 0.218> 0.05 (normal), and Assignment 3 had sig. 0.282> 0.05 (normal).

Post test data from both classes had the following details. Control class (sig 0,413> 0, 05) indicated that the data was normal, and experimental class (sig 0, 370> 0, 05) indicated that the data could also be expressed as normal data.

3. Homogeny Test

The next step after the normality test done, the researchers conducted homogeneity test, which had a purpose was to find homogeneous or not homogeneous data in a study. Homogeneity testing was performed to determine the next step on the type of statistical method used, whether parametric or non-parametric.

The absolute requirement of the parametric statistic test was that the data to be tested should be normal and homogeneous. While the data was not normal or not homogeneous, then the type of statistics used was non-parametric. The following was a summary of the results of the homogeneity test processed by using Levene's test (Levene's statistic).

Based on the calculations performed by the researchers, the results of the homogeneity test could be seen in Table 4.5

Table 4.5 Test of Homogeneity of Variances

Pretest Control

Levene Statistic	df1	df2	Sig.		Alpha	Conc
1.378	9	20	.262	>	0,05	Homogeny

Posttest Control

Levene Statistic	df1	df2	Sig.		Alpha	Conc
5.072	8	21	.13	>	0,05	Homogeny

In the analysis, if the score of significance was greater than the alpha score (sig> 0.05) then it could be assured that the data was homogeneous, if the data sig was less than 0.05 (<0.05) then the data was not homogeneous.

Based on the table, the significance score of pretest data was 0.262> 0.05 (greater than the alpha score), as well as the sig score. The post test data was 0.13> 0.05 (greater than the Alpha score). This indicated that the data was taken from the same sample variant, or both samples have equal ability (the first sample was the control class and the second sample was the experimental class).

4. Hypothesis test

To answer the problem formulation that had been asked, the hypothesis test used was paired sample t-test and independent test samples t-test. The paired samples t-test was conducted to determine the effect of EdPuzzle media and conventional media using LKS to increase the recount text writing skill, while the independent samples t-test was done to know the Differences of learning result between EdPuzzle media and conventional media using LKS. Data processing was done by using SPSS statistic.

SPSS processing for independent samples t-test produced two outputs, namely the test of variance which was in the same variance assumption column and in the unequal variance assumption column. The first test was done by finding whether the variance of both groups of samples was the same or not. The rule was, if the variance of the two sample groups was the same, then for the average test the score used was on the same line variance assumption column. Conversely, if the test results of the variance of the two groups were not the same, then for testing the average score refers to the column of the unequal variance assumption line.

a. Paired T-Test (the Effect of Conventional Media by Using LKS on Recount Text Writing Skill)

The result of paired t-test for conventional method using LKS could be seen in Table 4.6

Table 4.6Paired Samples Test (the Effect of Conventional Media by Using LKS on the Recount Text Writing Skill)

		Paired Differences					t	Df	Sig
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-test Control - Post-test Control	**-1.059**	**4.703**	**.807**	**-2.700**	**.582**	**-1.313**	**33**	**.198**

It was known that the t-count score for the recount text skill was -1.313 with probability (Sig.) 0.198. The provisions of decision-making were based on several provisions as follows:

Hypothesis:

H0 = There was no significant effect from conventional media on improving text writing recount skill

H1 = There was a significant effect of conventional media on improving text writing recount skill

Decision criteria:

(A) Accept H0 if the probability scores (Sig.)> 0.05

(B) Reject H0 if the probability score (Sig.) <0.05

The t-count score for writing skill of recount text was -1.313 with probability (Sig.) 0.198. Since the probability (Sig.) was 0.198> 0.05 then H0 was Accepted. This means there was no significant influence of conventional media by using LKS to the ability to write recount text. Based on the results of the processing, it could be concluded that conventional methods do not give a big effect on the learning outcomes in writing skill recount text.

b. Paired T-Test (the Effect of EdPuzzle Media on the Recount Text Writing Skill)

The result of paired t-test for EdPuzzle method could be seen in Table 4.7

Table 4.7 Paired Samples Test (the Effect of EdPuzzle Media on the Recount Text Writing Skill)

		Paired Differences					t	Df	Sig.
		Mean	SD	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-test Experiment - Post-test Experiment	**-4.235**	**5.472**	**.938**	**-6.145**	**-2.326**	**-4.513**	**34**	**.000**

It was known that the t-count score for the recount text skill was -4.513 with probability (Sig.) 0,000. The provisions of decision-making were based on several provisions as follows:

Hypothesis:

H0 = There was no significant effect of EdPuzzle media on improving writing skill recount text

H1 = There was a significant effect of the EdPuzzle media on improving writing skill recount text

Decision criteria:

- Accept H0 if the probability score (Sig.)> 0.05
- Reject H0 if the probability score (Sig.) <0.05

The t-count score for writing skill of recount text was -4.513 with probability (Sig.) 0,000. Since the probability (Sig.) 0,000 <0.05 then H0 was rejected. This means that there was a significant influence of the EdPuzzle media on recount text. Based on the results of the processing, it could be

concluded that, EdPuzzle media gave a big influence on learning outcomes in writing recount text.

c. Independent Sample T-Test (The differences between EdPuzzle Media and Conventional Media)

Testing the difference data in both groups by using independent sample t-test was applied to see the effect difference between EdPuzzle media and Conventional media. The test results stated the difference in learning outcomes between the EdPuzzle media and Conventional practice. See in table 4.8:

Table 4.8 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
Equal variances assumed	**.257**	**.614**	**1.937**	**66**	**-.057**	**10.176**	**5.253**	**-.311**	**20.664**
Equal variances not assumed			**1.937**	**65.608**	**-.057**	**10.176**	**5.253**	**-.312**	**20.665**

It was known that the F-count score for the assumption of variance was 0.257 with probability (Sig.) 0.614. The provisions of decision-making were based on several provisions as follows:

Hypothesis:

H0 = There was no significant difference between learning result variance with EdPuzzle and LKS

H1 = There was a significant difference between learning result variance with EdPuzzle and LKS

Decision Criteria:

A) If the probability (Sig.)> 0.05 then H0 was received,

B) If the probability (Sig.) <0.05 then H0 was rejected,

It was known that the F-count score in the learning result table using EdPuzzle and LKS Media was 0.257 with probability (Sig.) 0.614. Since the probability (Sig.) was 0.614> 0.05 then H0 was

accepted. The conclusion was that the variance of EdPuzzle learning outcomes and the LKS Media was the same or not significantly different. Thus, for the average test (t-test) referred to the scores that existed in the column of the same variance assumption row, or it could be said the ability of both classes (experimental group and control group) was the same. To know the difference between learning result of EdPuzzle and Media of LKS the following condition:

Hypothesis:

H0 = There was no significant difference effect between EdPuzzle and Conventional learning outcomes

H1 = There were significant differences effect between EdPuzzle and Conventional learning outcomes

Decision criteria:

A) Accept H0 if the probability score (Sig.)> 0.05

B) Reject H0 if the probability score (Sig.) <0.05

Given the score of T arithmetic in the above table was 1.937 with sig probability. 0.057. Due to the sig score. Less than alpha or standard error (0.057 <0.05), then H0 was rejected. In other words, there was a significant difference between learning result of EdPuzzle media and LKS media.

d. EdPuzzle Improvement

From the above test results could be concluded that the difference between the use of media usingEdPuzzle and Conventional media was significant. The EdPuzzle media had a higher average than the conventional media. See Table 4.9.

Table 4.9 Mean Differences

	Mean	N
Control (LKS Media)	82.32	34
Experiment (EdPuzzle Media)	86.00	34

Students who received learning using EdPuzzle had an average score of 86.00, a score better than that of students who received a conventional media of learning that received an average of 82.32. The EdPuzzle media was more effective than the conventional media using LKS.

B. Discussion

Based on the findings of researchers on using EdPuzzle to improve the ability to write recount text, the average score of the media was higher than the average result of learning using conventional media (LKS). The percentage comparison of the two scores was 86.00: 82.32.

The difference in outcomes was influenced by several predicted factors. The first factor was learning time. With EdPuzzle students had multiple learning times that could be controlled by teachers through their tasks and accomplishments. Students got the task of study and quiz at home through EdPuzzle, teacher could monitor student learning progress from quiz result. Next class discussion was conducted to strengthen students' understanding of the given material.

As for classes that use traditional media, teachers did not have the tools to see the progress of student learning. There was only one factor believing that they would do the work and study at home before they come to the class.

The second factor was, EdPuzzle provided more opportunities for students to interact with each other with their classmates. They could ask other students about materials they do not understand. So that interaction arose well, with the teacher as their facilitator.

As for classes with conventional media, the interaction ran monotonically between teachers and students. Communication was more often done by teachers to students, while communication between students as restricted.

In addition to these two factors, the use of EdPuzzle initially also had constraints. This constraint occurred due to less clear instructions delivered by teachers, or students who do not listen or focus on instructions delivered so miss communication occurs when using EdPuzzle applications. Therefore, the instruction should be done with simple, clear, and efficient.

Another inhibiting factor was the facility to open the EdPuzzle app. There were some students who have difficulty accessing EdPuzzle, because they do not have smartphones or PCs, Warnet was also far from their home. But they could work with EdPuzzle at school by borrowing their friends' smartphones. However, teachers should be able to adjust the tasks that would be given in accordance with the ability and time of students to access the task.