

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

This chapter contains two parts. The first is the findings from the research that has been done. In the findings there is a data description and data analysis such as normality test, homogeneity test, t-test and hypothesis testing). In the second part, namely the discussion, which contains opinions and explanations from the data contained in the findings.

4.1 Findings

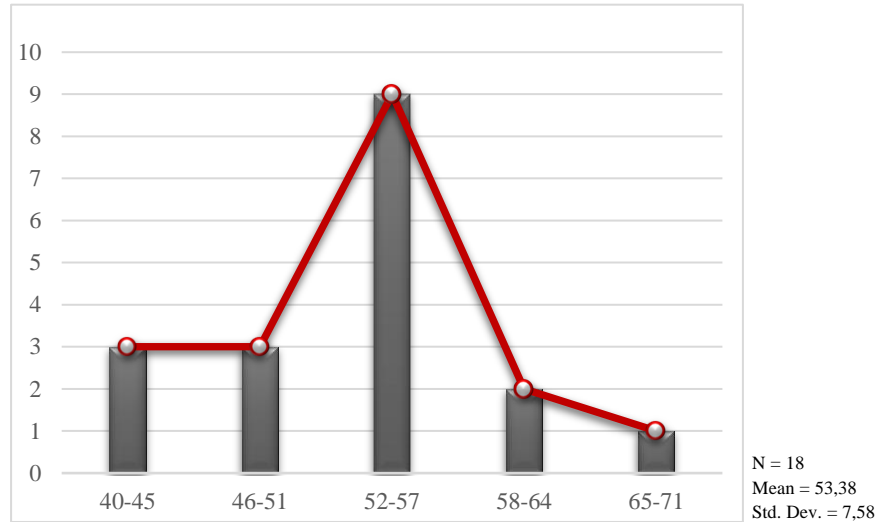
Before conducting the research, the researcher has made a research instrument, namely an essay test. Students are given an essay test to see their abilities before being given treatment, which is known as the pre-test in both classes, namely the control class and the experimental class. Furthermore, given treatment in both classes using different methods. Then, a post-test was carried out to see the comparison of values between before being given treatment (pre-test) and after being given treatment (post-test).

4.1.1 Data Description

The researcher collected all the data, namely from the experimental class (X MIA IV) and the control class (X IIS I) to get the pre-test and post-test results. The results of the two classes will prove that there is a difference in scores between the experimental class and the control class or not. The researcher uses essay by writing one paragraph where the level of difficulty is the same, with the intention that the questions given are the same in the experimental class and the control class. However, the difference here is that the experimental class is the class that is given treatment using the *estafet* writing method, while the control class is the class that is only given the conventional method. Then, the results will prove which one is more effective or there is no difference between the experimental class and the control class.

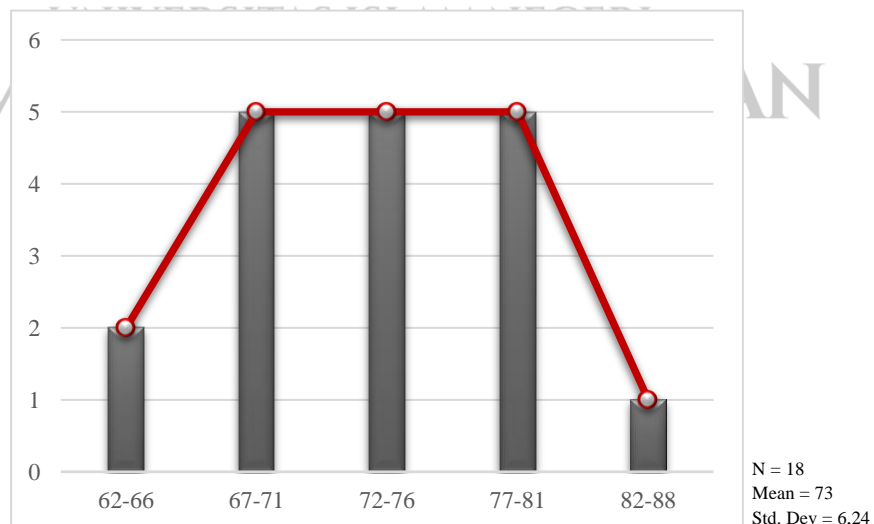
4.1.1.1 Experimental Class

Figure 4.1
Pre-Test Experimental Class



From the figure above, the researcher has collected the results of each student from the pre-test experimental class. From the data above it shows that students who have the lowest score are 3 students, who have a score range of 40-45 out of 100. While students who have the highest score are only one student with a score range of 65-71 out of 100. However, there are 9 students who have scores with a score range of 52-57 out of 100. From the results of these tests, the total average score of students in the experimental class in the pre-test was 53.38.

Figure 4.2
Post-Test Experimental Class

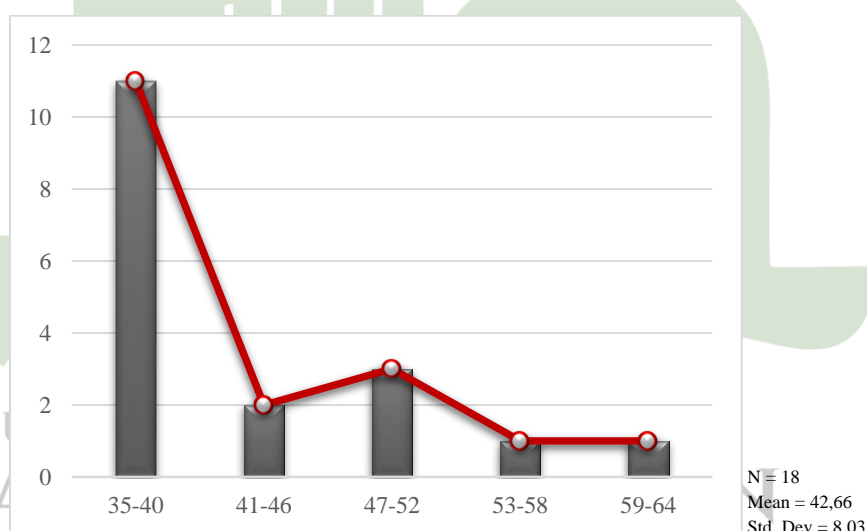


From the figure above, the researcher has collected the results of each student from the post-test experimental class. From the data above it shows that students who have the lowest scores are 2 students, who have a score range of 62-66 out of 100. While students who have the highest scores are only one student with a score range of 82-88 out of 100. From the test results, it shows that the total average score of students in the experimental class on the post-test was 73.

There was an increase in the experimental class, namely the pre-test had a score of 53.88 and the post-test had a score of 73. Because the learning process used *estafet* writing method, which from her opinion (Syatariah, 2009) made students more active in class, had enthusiasm and enthusiasm in the learning process. In addition, this *estafet* method has also been examined by several previous studies which prove that this method is really effective as a learning method.

4.1.1.2 Control Class

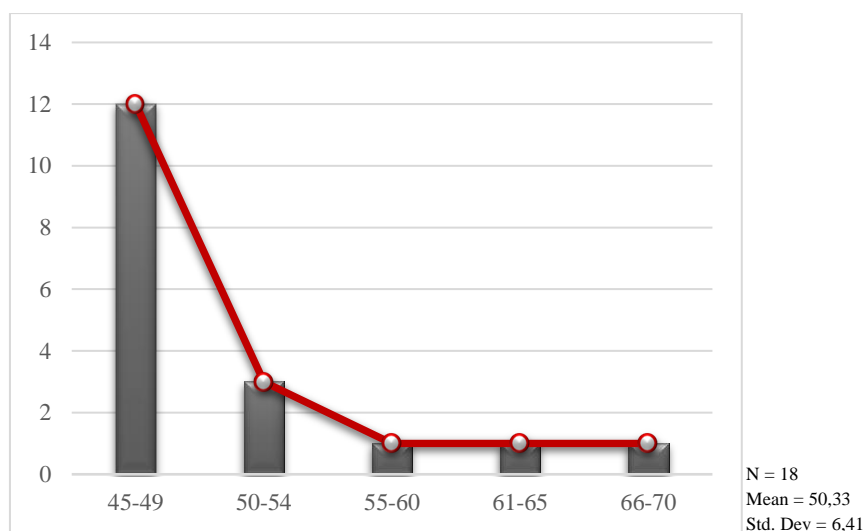
Figure 4.3
Pre-Test Control Class



From the figure above, the researcher has collected the results of each student from the pre-test control class. From the data above it shows that students who have the lowest scores are 11 students, who have a score range of 35-40 out of 100. While students who have the highest scores are only one student with a score range of 59-64 out of 100. From the test results, it shows that the average total pre-test score of students in the control class

was 42.66.

Figure 4. 4
Post-Test Control Class



From the figure above, the researcher has collected the results of each student from the post-test control class. From the data above it shows that students who have the lowest score are 12 students, who have a score range of 45-49 out of 100. While students who have the highest score are only one student with a score of 66-70 out of 100. From the test results, it shows that the total the average post-test score of students in the control class was 50.33.

In the control class, there was also an increase, namely the pre-test had a score of 42.66 and the post-test had a score of 50.33. However, the increase only differed by 8 scores on the pre-test and post-test because they still used the conventional method, namely a method in which a teacher only explains material in front of the class or what is commonly called the lecture method (Iswari et al., 2017). The difference with *estafet* writing method is that students play an active role in class, while the conventional method is that teachers have multiple roles in class and students are still passive in the class.

4.1.2 Analysis of Data

4.1.2.1 Normality Test

The normality test is used to determine whether the data is normal or not. Data is said to be normal if $r_{\text{count}} > r_{\text{table}}$ (0.05). Researchers used Shapiro-Wilk because the number of samples in this study was only 18 samples, which means less than 50 samples. Meanwhile, Kolmogorov-Smirnov is used when the sample is more than 50 samples.

Table 4.1
Normality Test

	Class	Shapiro-Wilk		
		Statistic	df	Sig.
Learning Outcomes Writing Skill	Pre-Test			
	Experiment (EWM)	,938	18	,271
	Post-Test			
	Experiment (EWM)	,969	18	,786
	Pre-Test Control (Conventional)	,927	18	,187
	Post-Test Control (Conventional)	,920	18	,303

1) Normality test of Experimental Class

In processing the data, researchers used SPSS 22 in the experimental class and the control class. The table above shows that the results of the experimental class pre-test data using Shapiro-Wilk. So, the rule is if $r_{\text{count}} > r_{\text{table}}$, then the data is normally distributed. However, on the contrary, if $r_{\text{count}} < r_{\text{table}}$, then the data is not normally distributed. In the results of the table above, r_{count} is 0.271 while r_{table} is 0.05. Then $0.271 > 0.05$, which means that the data in the experimental class pre-test is normally distributed. Whereas in the post-test it can be seen in the Shapiro-Wilk table that the r_{count} is 0.786. So, $0.786 > 0.05$, which means $r_{\text{count}} > r_{\text{table}}$. This shows that the data is normally distributed.

2) Normality Test of Control Class

The researcher got the results of the pre-test data in the control class by looking at the Shapiro-Wilk section. It can be seen from the results that the r_{count} is 0.187, while the r_{table} is 0.05. So, $0.187 > 0.05$, which means $r_{\text{count}} > r_{\text{table}}$. This shows that the data is normally distributed. As for the post-test in the control class using Shapiro-Wilk, it can be seen that the r_{count} is 0.303. So, $0.303 > 0.05$, which means $r_{\text{count}} > r_{\text{table}}$. So, it can be concluded that the data is normally distributed.

4.1.2.2 Homogeneity Test

After testing the normality of the data collected, the researcher then wanted to test homogeneity using SPSS 22 to find out the variance data from the post-test in the experimental class and the control class. This data test aims to see whether the data is homogeneous or not. Data is called homogeneous if $r_{\text{count}} > r_{\text{table}}$ (0.05). Researchers use Levene Statistics to test homogeneity.

Table 4.2
Homogeneity Test

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Student Learning Outcomes	Based on Mean	,094	1	34	,761
	Based on Median	,382	1	34	,541
	Based on Median and with adjusted df	,382	1	31,602	,541
	Based on trimmed mean	,225	1	34	,638

In the table above, the t_{count} is 0.761. So, $0.761 > 0.05$ which means $t_{\text{count}} > t_{\text{table}}$. So, it can be concluded that the variance of the post-test class data in the experimental class and the control class is homogeneous.

4.1.2.3 Hypothesis Test

After carrying out the normality test and homogeneity test. So next the researcher wants to measure the results of the t-test using SPSS 22 to find out whether there is an effect between the class that is given treatment, namely the *estafet* writing method, and the class that is given treatment using conventional methods.

Table 4.3
Hypothesis T-test
Group Statistics

	Class	N	Mean	Std. Deviation	Std. Error Mean
Learning Outcomes Writing Skill	Post-Test (EWM)	18	73,00	6,250	1,473
	Post-Test (Conventional)	18	50,11	6,087	1,435

Based on the table above shows that there is a significant effect in the experimental class with the control class. It can be seen from the average result in the experimental class that was given *estafet* writing method treatment, which was 73.00, while the average result in the control class, which was only given the conventional method, was 50.11. This proves that the learning outcomes of students who are taught using *estafet* writing method have a higher average score, compared to students who are taught only using conventional methods.

Furthermore, in testing the t-test, at this stage using the independent sample t test, because the samples used in this study were not the same or in two unpaired groups. This study tested two different classes, namely class X MIA IV and class X MIA I. If the value of Sig. (2-tailed) < 0.05, so there is a significant effect between learning outcomes in the experimental class and the control class. Conversely, if the value of Sig. (2-tailed < 0.05), so there is no significant effect between learning outcomes in the experimental class and the control class.

Table 4.4
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
Outcoming Writing Skill	Equal variances assumed	,094	,761	11,132	34	,000	22,889	2,056	18,710	27,068
	Equal variances not assumed			11,132	33,976	,000	22,889	2,056	18,710	27,068

Based on the table above shows that the sig. (2-tailed) in the "equal variances assumed" section, namely 0.000 which means $0.000 < 0.05$. This means that there is a significant effect between the experimental class that was given *estafet* writing method treatment and the control class that was given the conventional method. The table also shows that the mean difference is 22.889. So, it can be concluded that the *estafet* writing method is effectively used.

To prove which hypothesis is accepted and rejected. Then the hypothesis test can answer the formulation of the problem "Is there any significant effect of *estafet* writing on students' writing descriptive texts at the tenth grade of MAS Muallimin UNIVA Medan". Researchers used hypothesis testing with the following criteria:

- H_a is accepted if $t_{hitung} > t_{table}$ or if the sig. (2-tailed) $< 0,05$
- H_0 is accepted if $t_{hitung} < t_{table}$ or if the sig. (2-tailed) $> 0,05$

The hypothesis of the research, as follows:

- H_a : there is an effect on students' ability writing descriptive text when taught using *estafet* writing method.
- H_0 : there is no effect on students' ability writing descriptive text when taught using *estafet* writing method.

Therefore, if you look at table 4.4, in the "equal variances assumed" section,

there is a t_{count} , namely 11.132. If the df is 34, then the t_{table} value is 1.691. So, $11.132 > 1.691$ ($t_{\text{count}} > t_{\text{table}}$). It can also be seen from the sig. (2-tailed) in table 4.4 is 0.000. So, $0.000 < 0.05$. So, H_a is accepted because $t_{\text{count}} > t_{\text{table}}$ or if the sig. (2-tailed) < 0.05 . In other words, H_a is accepted, because there is an effect on students' ability writing descriptive text when taught using *estafet* writing method and H_0 it was rejected.

4.2 Discussion

The researcher tested normality and homogeneity using the SPSS 22 application, with pre-test and post-test data for two classes, namely the experimental class and the control class. The results of normality, the data is normally distributed it is $0.786 > 0.05$, which means $r_{\text{count}} > r_{\text{table}}$ in experimental class and $0.187 > 0.05$, which means $r_{\text{count}} > r_{\text{table}}$ in control class, this shows that the data is normally distributed and in the homogeneity test, the data is homogeneous because $0.761 > 0.05$ which means $t_{\text{count}} > t_{\text{table}}$.

Therefore, it can be continued with the $t_{\text{-test}}$, namely using the independent sample $t_{\text{-test}}$. The results of the $t_{\text{-test}}$ also show that the data has a significant effect on students' ability to write descriptive text when taught using *estafet* writing method because the results on the independent table show that $t_{\text{count}} > t_{\text{table}}$ ($11.132 > 1.691$) or $0.000 < 0.05$. It means that H_a is accepted while H_0 is rejected. It can be concluded that there is significant effect on students' ability to write descriptive text when taught using the *estafet writing* method.

In her opinion Syatariah (2009), her method makes students very active in the class. Make students have high enthusiasm in learning in class. This was proven in this study, researcher used *estafet* writing method as a learning method. The students showed a sense of enthusiasm, excited, when learning began. They are more challenged by combining their ideas into one paragraph in one group. This activity also makes students socialize among their group mates, thus building a sense of cooperation in the group to make good and correct paragraphs.

It is the similar as what was said by Rusman (2011), which is an innovative learning model, in which a teacher only gives one topic and students explore the idea according to the topic into several sentences. In this study, before giving this

method, students felt difficulty expressing their ideas but after using this method, they became freer in expressing their ideas because the topic given is most understood or liked by students so that students feel familiar with the topic. Each group was instructed to make a paragraph with the same topic, then they expressed their ideas in turn, from one student to the next student, and so on until they were formed into a paragraph that was composed with content that was appropriate to the topic. which are given.

Meanwhile, according to Saragih & Rabbani (2017), they say that *estafet* writing method has a great impact on students' writing abilities. For example, students can improve vocabulary skills, students are able to write using the concepts and ideas they have. It is evident from these results of the tests, their paragraphs better understand because their vocabularies match to the contents contained in the paragraphs according to the topic given, they also use the correct sentence structure and grammar.

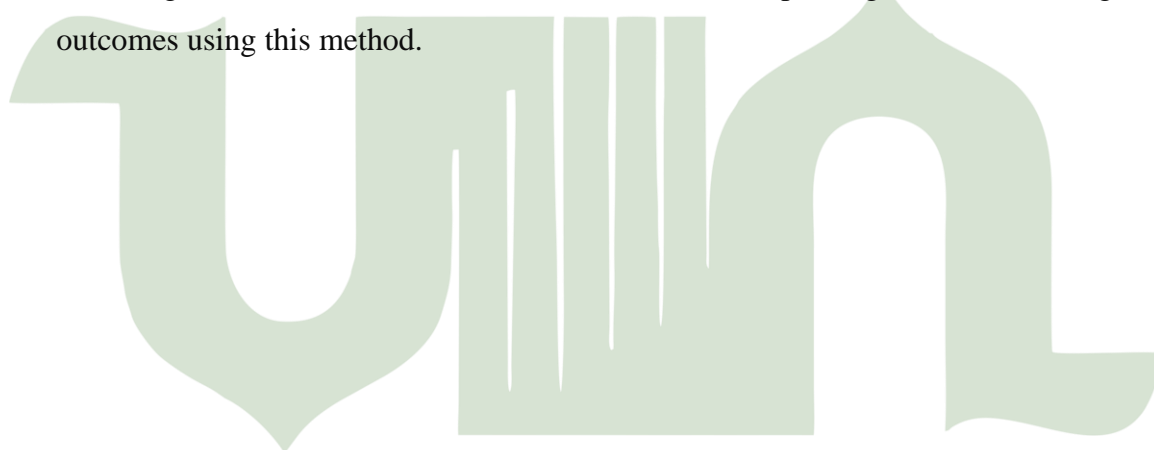
In their research Rangkuti (2017) dan Ariyani (2015) used the Classroom Action Research (CAR) research method, in which data collection consisted of observations, tests and questionnaires. They used Kurt Lewin's design which uses two cycles. So, they have two tests, after being given the treatment. In the results of the post-test I & II they have an increase in scores. In the CAR study, only testing one class was the same as research Tanjung et al. (2021) which used a pre-experimental design, namely one group pre-test and post-test. However, the pre-experimental design does not use two cycles like the CAR research. Meanwhile, this study, used a quasi-experimental research method consisting of a pre-test and post-test which tested two different classes, namely the control class and the experimental class. In order to see the value difference in the two classes.

Whereas in their research Ditya (2017) and Rosaliana (2014) used quasi-experimental research methods, the same is the case with this research. The two researchers with this study tested two different classes to get maximum results with different methods. In the experimental class the focus was on the treatment with *estafet* writing method, while in the control class the conventional method was given. So, that the results of the pre-test and post-test in the two classes are also different. The two researchers with this study also tested high school seniors.

In Ditya's (2017) study, the results say that *estafet* writing method is very helpful for students in writing a text in English. He also said that it can help students explore ideas and be able to organize their ideas according to the topic given and build teamwork/group cooperation.

Whereas in Rosaliana's (2014) study, the results said that the method can help students to understand a topic so that it makes students more courageous in expressing their ideas in writing. Making students more active in class and arousing their passion for their writing.

In this study, students showed excitement and enthusiasm during the learning process, students played an active role in class such as building collaboration between team members so that they were able to build good and correct sentences according to the structure of the English language, they were more able to explore their ideas according to the topics given. From previous research and this research, the things mentioned above show similarities in improving student learning outcomes using this method.



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