

## **CHAPTER IV**

### **FINDING AND DISCUSSION**

#### **A. Finding**

The important thing in the research is the concept of the research that was held, the concept of the research is experimental research in the field of education. Based on the results of observations through interviews and consultation to the English teacher, the researcher got the information a condition of class. So, the researcher was held on July, 20<sup>th</sup> 2017 – September, 20<sup>th</sup> 2017.

The material of the teaching and learning was analytical exposition at eleventh grade students with syllabus curriculum 2013 that consist of main competency, basic competence and indicator. For detail, it can be seen in appendix 5. The sample of research, the students of XI A (science program) and XI B (social program) in MA Thalabul Irsyad Pulau Petak Kapuas regency. Each class was acted as what have decided in research method.

This study used experiment research which consisted two subjects, the experimental and control group. The XI A (science program) as the experimental group was taught by using clustering technique, while the control was XI B (social program) which was taught by using traditional technique. Each of these classes consist of 31 students and were given pretest and posttest.

The researcher made planning of all needed in teaching later in control class such as the lesson plan, the material aids, the evaluation, and so on (look at appendix 9). Teaching and learning implementation was done once for pre-test, three times for treatment, and once for post-test.

During process teaching and learning in experiment class, the researcher gave clustering technique on students every meeting. Cluster which given was practice writing assignment. Because of first meeting was giving test, so the researcher began to give clustering technique in the end of the second meeting until the end of the fourth meeting.

### **1. The Pre-Test about Students' Mastery in Writing Analytical Exposition for Experiment Class and Control Class**

To investigate the students' mastery in writing before the researcher applies the technique. The researcher gives written test as pre-test for the students' in experiment class and control class in writing analytical exposition.

#### **a. Pre-test Result in Experiment Class**

Based on the result of pre-test of XI A (science program) as experiment class, which was described in table 4.3 showed students' achievement in answering the test, writing down a words or phrase in the paper with the cluster concept circle center, the logic of the sequence and connections, to be a sentences and completely with paragraph analytical exposition.

Table 4.1 The Students' Pre-Test of Writing in Experiment Class

No	SS	Assessment Aspects					Scores
		O	C	G	P	V	
1.	AB	5	10	10	10	10	45
2.	AH	5	5	10	10	15	45
3.	AG	10	10	10	10	10	50
4.	AM	10	5	5	5	10	35
5.	AN	10	10	10	5	5	40
6.	AR	10	10	10	5	15	50
7.	MH	10	10	10	10	15	55
8.	MN	10	5	5	10	5	35
9.	MS	10	10	5	10	5	40
10.	MT	10	10	10	5	5	40
11.	MU	10	5	5	5	10	35
12.	MD	10	10	15	10	10	55
13.	RA	10	10	10	5	15	50
14.	RF	5	10	5	10	5	35
15.	SA	5	5	5	5	10	30
16.	SJ	10	5	5	5	10	35
17.	SR	10	10	5	10	5	40
18.	TA	10	10	5	10	10	45
<b>Total</b>		<b>160</b>	<b>150</b>	<b>140</b>	<b>140</b>	<b>170</b>	<b>770</b>
<b>Mean score</b>							<b>42,78</b>

Table 4.1 showed that the score of pre-test in experiment class at the eleventh grade of MA Thalabul Irsyad Sei Tatas Kapuas regency. The highest score is 55 which assessed in writing analytical exposition divided into organization (10), content (10), grammar (10), punctuation (10), and vocabulary (15). While the lowest score is 30 which assessing in writing analytical exposition divided in organization (5), content (5), grammar (5), punctuation (5), and vocabulary (10). Then, the accumulated score is 770.

Based on the pre-test result, the mean score of pre-test is 42,78 (see appendix 11), it can be seen that students' achievement before giving treatment in experiment class can be concluded in very low category, it can be seen for the percentage of students' score.

#### **b. The Pre Test Result in Control Class**

The result of pre-test in control class at eleventh grade students MA Thalabul Irsyad Sei Tatas Kapuas regency can be seen in the following table:

Table 4.2 The Students' Pre-Test of Writing in Control Class

No	SS	Assessment Aspects					Scores
		O	C	G	P	V	
1.	AR	5	10	5	10	10	40
2.	ARD	5	10	10	10	10	45
3.	HA	10	10	5	10	10	45
4.	MA	5	5	10	10	10	40
5.	MAR	10	10	10	10	15	55
6.	MAS	10	10	15	10	15	60
7.	MI	10	5	5	10	10	40
8.	MK	10	10	10	10	10	50

9.	MR	10	10	5	10	10	45
10.	NF	5	10	10	10	15	50
11.	PN	5	5	10	10	15	45
12.	SA	10	5	10	10	10	45
<b>Total</b>		<b>95</b>	<b>100</b>	<b>105</b>	<b>120</b>	<b>140</b>	<b>560</b>
<b>Mean score</b>							<b>46,67</b>

Table 4.2 showed the score of pre-test in control class at the eleventh grade of MA Thalabul Irsyad Sei Tatas Kapuas regency. The highest score is 60 which assessed in writing analytical exposition divided into organization (10), content (10), grammar (15), punctuation (10), and vocabulary (15). While the lowest score is 40 which assessed in writing analytical exposition divided into organization (10), content (5), grammar (5), punctuation (10), and vocabulary (10). Then, the accumulated score is 560.

Based on the pre-test result, the mean score of pre-test is 46,67 (see appendix 11), it can be seen that students' achievement before giving treatment in experiment class can be concluded in very low category, it can be seen from the percentage of students' score.

### c. Description of the Students' Pre Test in Experiment Class and Control Class

The pre test is carried on the first meeting of each class. After the result are calculated, it is found that both classes are in poor category. Then, The description of students' pre test result can be seen on table 4.3:

Table 4.3 Description of the Students' Pre Test.

No	Category	Experiment class	Control class
1.	Highest score	55	60
2.	Lowest score	30	40
3.	Mean score	42,78	46,67
4.	Standard Deviation	7,54	6,39

The table 4.3 showed that the highest score in experiment class is 55 and the highest score in control class is 60. The lowest score in experiment class is 30 and the lowest score in control class is 40. The mean score in experiment class is 42,78 and the mean score in control class is 46,67. The standard deviation in experiment class is 7,54 and the standard deviation in control class is 6,39. Based on highest score, lowest score, mean and standard deviation between experiment class and control class is not too different.

## **2. The Post Test Result on Students' Mastery of Writing Analytical Exposition in Experiment Class by Using Clustering Technique and Control Class without Clustering**

Before the researcher known the students' mastery in writing by using clustering technique, the researcher asked the teacher to teach the students by using clustering technique in experiment class and without using clustering technique in control class. For this research, the researcher needs 3 times to do, the first meeting on July, 25<sup>th</sup> 2017, the second meeting on July, 26<sup>th</sup> 2017, and the third meeting on July, 27<sup>th</sup> 2017.

**a. The post-test result in experiment class**

Based on the result of post-test of XI A (science program) as experiment class, it can be seen in tables 4.5. It showed students' mastery in assessing writing by using clustering technique in experiment class and for control class, writing down a word or phrase in the center of blank sheet and circling, the logic of the sequence and connections, to be a sentences and completely with paragraph analytical exposition.

Table 4.4 The Students' Post Test Result in Experiment Class

No	SS	Assessment Aspects					Scores
		O	C	G	P	V	
1.	AB	20	20	15	15	20	90
2.	AH	20	15	15	15	20	85
3.	AG	15	15	15	20	20	85
4.	AM	20	10	10	20	20	80
5.	AN	20	15	15	20	15	85
6.	AR	15	15	15	20	20	85
7.	MH	15	15	15	20	20	85
8.	MN	20	15	20	15	15	85
9.	MS	20	15	15	20	20	90
10.	MT	20	15	15	20	15	85
11.	MU	20	20	10	20	10	80
12.	MD	15	15	15	20	20	85
13.	RA	20	15	20	15	15	85
14.	RF	20	10	10	20	20	80
15.	SA	20	15	10	15	15	70
16.	SJ	20	15	15	15	20	85

17.	SR	20	15	15	10	15	75
18.	TA	20	10	10	20	20	80
<b>Total</b>		<b>340</b>	<b>115</b>	<b>255</b>	<b>320</b>	<b>320</b>	<b>1495</b>
<b>Mean score</b>							<b>83,06</b>

Based on table 4.4, it showed that the score of post-test in experiment class at the eleventh grade of MA Thalabul Irsyad Sei Tatas Kapuas regency. The highest score is 90 which assessing in writing analytical exposition divided into organization (20), content (15), grammar (15), punctuation (20), and vocabulary (20). While the lowest score is 70 which assessed in writing analytical exposition divided into organization (20), content (15), grammar (10), punctuation (15), and vocabulary (15). Then, the accumulated score is 1495.

Based on the calculation above, the mean score of post-test is 83,06. (see appendix 12). It can be seen that students' mastery in experiment class of the eleventh grade at MA Thalabul Irsyad Sei Tatas Kapuas regency can be concluded in very good category, it can be seen from the percentage of students' score.

#### **b. The post-test result in control class**

The result of post-test at XI B (social program) as experiment class, in the tables 4.6 showed students' mastery in assessing writing without using clustering technique in control class, writing down a word or phrase in the

center of blank sheet and circling, the logic of the sequence and connections, to be a sentences and completely with paragraph analytical exposition.

Table 4.5 The Students' Post Test Result in Control Class

No	SS	Assessment Aspects					Scores
		O	C	G	P	V	
1.	AR	15	15	10	15	15	70
2.	ARD	15	15	15	15	15	75
3.	HA	15	10	10	15	10	60
4.	MA	15	10	10	10	15	60
5.	MAR	15	10	10	15	15	65
6.	MAS	15	15	15	15	15	75
7.	MI	10	10	10	10	10	50
8.	MK	15	15	10	10	10	60
9.	MR	15	15	15	15	15	75
10.	NF	20	20	10	10	20	80
11.	PN	20	20	10	15	20	85
12.	SA	15	10	10	10	15	60
<b>Total</b>		<b>185</b>	<b>165</b>	<b>135</b>	<b>155</b>	<b>175</b>	<b>815</b>
<b>Mean score</b>							<b>67,91</b>

Based on table 4.5, the score of post-test in control class at the eleventh grade of MA Thalabul Irsyad Sei Tatas Kapuas regency. The highest score is 85 which assessed in writing analytical exposition divided into organization (20), content (20), grammar (10), punctuation (15), and vocabulary (20). While the lowest score is 50 which assessed in writing analytical exposition divided into organization (10), content (10), grammar

(10), punctuation (10), and vocabulary (10). Then, the accumulated score is 815.

Based on the calculation above, the mean score of post-test is 67,91. (see appendix 12). It can be seen that students' mastery in experiment class of the eleventh grade at MA Thalabul Irsyad Sei Tatas Kapuas regency can be concluded in fair category, it can be seen from the percentage of students' score.

### c. Description of Students' Post Test in Experiment Class and Control Class

The students' post test result, it can be seen from the post test score which is given in the end of the meeting. It is found that both classes are very good category in experiment class and good category in control class. The description of students' post test in experiment class and control class can be seen on following table:

Table 4.6. Description of the Students' Post Test

No.	Category	Experiment class	Control class
1.	Highest score	90	85
2.	Lowest score	70	50
3.	Mean	83,06	67,91
4.	Standard Deviation	4,89	10,32

Table 4.6 showed that the highest score in experiment class is 90 and the highest score in control class is 85. The lowest score in experiment class is 70 and the lowest score in control class is 50. The mean in experiment class is 83,06 and the mean in control class is 67,91. The standard deviation in

experiment class is 4,89 and the standard deviation in control class is 10,32  
Based on highest score, lowest score, mean and standard deviation between  
experiment class and control class is different.

a) Table 4.7 Frequency Distribution of The Students' Post Test Result in Experiment Class

No.	Score	Frequency	Percentage	Category
1.	80 – 100	16	88,9 %	Very Good
2.	70 - <80	2	11,1%	Good
3.	60 - <70	0	0%	Fair
4.	50 - <60	0	0%	Poor
5.	0 - <50	0	0%	Very poor

Table 4.7 described that there were no one students (0%) whose score are around 0 - <50 that classified in very poor category. There were no one students (0%) whose score were around 50 - <60 that classified in poor category. There were no one students (0%) whose score were around 60 - <70 that classified in fair category. There were 2 students (11,1%) whose score were around 70 - <80 that classified in good category and there were 16 students from 18 students (88,9%) whose score were around 80 – 100 that classified in very good category.

b) Table 4.8 Frequency Distribution of The Students' Post Test Result in Control Class

No.	Score	Frequency	Percentage	Category
1.	80 – 100	2	16,6%	Very Good
2.	70 - <80	4	33,3%	Good
3.	60 - <70	5	41,6%	Fair
4.	50 - <60	1	8,33%	Poor
5.	0 - <50	0	0%	Very poor

Table 4.8 described that there were no one students (0%) whose score are around 0 - <50 which was classified in very poor category. There was 1 student (8,33%) whose score were around 50 - <60 that classified in poor category. There were 5 students (41,6%) whose score were around 60 - <70 that classified in fair category. There were 4 students from 12 students (33,3%) whose score were around 70 - <80 that classified in good category. And there were 2 students from 12 students (16,6%) whose score were around 80 – 100 that classified in very good category.

## **B. Discussion**

The purpose of the study is to find out the effectiveness of clustering technique to improve students' ability in writing analytical exposition at MA Thalabul Irsyad Sei Tatas Kapuas regency. The researcher used comparative study between experiment class by using clustering technique and control class without using clustering technique, the researcher uses "t-test". After all the collected data have processed, the researcher analyzes them and makes conclusion by using "t-test" formula.

The researcher calculates the mean score between experiment class and control class of the post test. After the calculated (See appendix 12), the mean score in experiment class is 83,06 and the mean score in control class is 67,91. Then, the researcher counts standard deviation. Standard deviation is a measure of the dispersion of a set of data from its mean. For the standard deviation in experiment class is 4,89 and the standard deviation in control

class is 10,32. After that, the researcher counts standard error. For the standard error in experiment class is 5,80 and the standard error in control class is 11. From both subject the total standard error is 12,4. Later, the researcher counts t-test. t-test score is 2.41. After having the t-test score, look at the t-table by counting the degree of freedom. The researcher found the df (degree of freedom), which is 28 and then consult with t table. (see appendix 14).

### **1. The Effectiveness of Using Clustering Technique to Improve Students' Ability in Writing Analytical Exposition in Experiment Class**

Based on the calculating mean students' score of pre test result was 42,78 and the mean students' score of post test result is 83,06. It means, using clustering technique to improve students' ability in writing analytical exposition was in very good category. On other hand, from the students' participation shows percentage score was 88,9%, it is concluded in very good category. The data of the table shows that the students are very active in learning writing analytical exposition. After the presented data on the previous subchapter shows that in post test description of the students' the highest score (90) and the lowest score (70) that had increasing ability. While the frequency distribution of the students' post test result was 88,9% percentage that classified into very good category.

## **2. The Effectiveness Without Using Clustering Technique to Improve Students' Ability in Writing Analytical Exposition**

Based on the calculating mean students' score of pre test result was 46,67 and the mean students' score of post test result in control class was 67,91 from 12 students. It means, using clustering technique in writing analytical exposition was in fair category. After the presented data on the previous subchapter shows that in post test description of the students' the highest score (85) and the lowest score (50) that had increasing ability. While the frequency distribution of the students' post test result was 33,3% percentage that classified into good category.

## **3. The Difference in Teaching and Learning English between Experiment Class which taught by Using Clustering Technique and Control Class which taught without Using Clustering Technique**

The difference in teaching and learning English between experiment class which taught by using clustering technique and control class which taught without using clustering technique is significant. From the statistical measurement above shows that  $H_0$  (Null Hypothesis) is not accepted or rejected;  $H_a$  (Alternative Hypothesis) is accepted, because value of  $t_{test}$  is higher than of  $t_{table}$  (value of critic "t").  $T_{table} (5\% = 1,05) < T_{test} (2,41) > t_{table} (1\% = 1,13)$ .

Clustering technique has some benefit for the students, such as help students to understand writing sentence, improve students' ability in writing, and memorize the vocabulary. It also helps students to be more joyful, interest, and enthusiastic teaching and learning process. Meanwhile, the result of posttest that determined the improvement of students English

writing especially in analytical exposition. Based on the calculation, both classes experimental and control had different result. The posttest score was higher than the pretest both in scores and means. Thus, the test was effective to be an alternative way in improving students' English writing ability.

After finding out all of the statistical calculation, the alternative hypothesis was accepted and the null hypothesis was rejected. It means that the application of clustering technique was more effective than traditional technique. By the application of clustering, students were motivated being an active in mastering English well by improving their composition. Therefore, the students found that making clustering was interesting in learning English writing of analytical exposition. It also enables students to develop their own learning effort.