

CHAPTER IV

FINDINGS AND DISCUSSION

A. Findings

To know more about students' grammar mastery, the writer tested the students using written test. In this test the writer uses some kind of test such as multiple choice, completion, and rearrange the sentences.

In order to make easier to classify the test, the writer divided the students into two classrooms. The first is named as the fourth class, and second is named as the third experiment class. The students answered 35 questions for 90 minutes. As a result, if the students can answer right for all of the questions, the students can get the highest score is 100 points.

1. Description about students' grammar mastery of the fourth class

To know about the students' grammar mastery of the fourth class at Islamic boarding school An-Najah Cindai Alus Martapura academic year 2013/2014, the writer conducted a written test on October, 15th 2013. The students answered 35 questions for 90 minutes.

For more detail information, the data can be seen in the table below.

Table 4.1 The Result of Written Test of Students' Frequency in Grammar Mastery of the Fourth Class

NO.	Test Type			Score
	Multiple choice	Completion	Rearrange the sentences	
1	26	27	30	83
2.	20	6	24	50
3.	34	15	24	73
4.	14	12	30	56

5.	38	30	30	98
6.	12	3	18	33
7.	26	6	30	62
8.	10	6	18	34
9.	36	24	24	84
10.	8	3	24	35
11.	18	3	30	51
12.	28	21	30	79
13.	24	0	12	36
14.	24	9	30	63
15.	8	12	30	50
16.	20	9	12	41
Total				$\sum X = 928$

Based on the table above, it shows that the scores of students' grammar mastery of the fourth class at Islamic boarding school An-Najah Cindai Alus Martapura academic year 2013/2014, the highest score is 98 which are divided in multiple choice score is 38, completion score is 30, and rearrange the sentences score is 30. The lowest score is 33 which are divided in multiple choice score is 12, completion score is 3, and rearrange the sentences score is 18. And the accumulated score is 928.

Table 4.2 The Frequency Distribution of the Student's Strength in Grammar Mastery of the Fourth Class and Classification

No.	Score	Frequency	Percentage	Category
1.	80 – 100	3 students	18.75 %	Excellent
2.	70 – 79	2 students	12.5 %	Good
3.	60 – 69	2 students	12.5 %	Fair
4.	50 – 59	4 students	25 %	Bad
5.	0 – 49	5 students	31.25 %	Poor
	Total	16 students	100 %	

The table above reveals that the students' grammar mastery of the fourth class on the categories are 3 students are in excellent category (18.75 %), 2 students are in good category (12.5 %), 2 student is fair category (12.5 %), 4 students in bad category (25 %) , and 5 students in poor category (31.25 %).

To know the students' grammar mastery of the fourth class at Islamic boarding school An-Najah Cindai Alus Martapura academic year 2013/2014, the writer uses the accounting of mean formula as follows:

$$M_{the\ fourth\ class} = \frac{\sum X}{N} = \frac{928}{16} = 58$$

The mean score shows that the students' grammar mastery of the fourth class is in bad category in their frequency.

Then, in order to count the t- test to answer the third questions of the research easily, the writer counted the total value based on the mean which has been calculated above to know the Standard Deviation value of this group.

Table 4.3 Working table of data analysis of students' Grammar Mastery of the Fourth Class

No	Name	X	x (X-Mx)	x ²
1	Student A	83	25	625
2	Student B	50	-8	64
3	Student C	73	15	225
4	Student D	56	-2	4
5	Student E	98	40	1600
6	Student F	33	-25	625
7	Student G	62	4	16
8	Student H	34	-24	576
9	Student I	84	26	676
10	Student J	35	-23	529
11	Student K	51	-7	49
12	Student L	79	21	441

13	Student M	36	-22	484
14	Student N	63	5	25
15	Student O	50	-8	64
16	Student P	41	-17	289
	Total	$\sum x = 928$		$\sum x^2 = 6292$

2. Description About Students Result of Students' Grammar Mastery of the Third Experiment Class

To know about the students' grammar mastery of the third experiment class at Islamic boarding school An-Najah Cindai Alus Martapura academic year 2013/2014. The writer conducted a written test on October, 16th 2013. The students answered 35 questions for 90 minutes.

For more detail information, the data can be seen in the table below.

Table 4.4 The Result of Written Test of Students' Frequency in Grammar Mastery of the Third Experiment Class

NO.	Test Type			
	Multiple choice	Completion	Rearrange the sentences	Score
1	30	12	30	72
2.	18	9	30	57
3.	26	12	30	68
4.	36	15	30	81
5.	26	18	30	74
6.	24	3	6	33
7.	36	27	30	93
8.	26	24	30	80
9.	32	15	30	77
10.	12	12	24	48
11.	20	12	30	62
12.	32	27	30	89
13.	30	18	24	72
14.	20	0	30	50
15.	28	9	18	55
16.	34	18	30	82

17.	30	12	30	72
18.	26	18	6	50
19.	30	21	30	81
20.	20	15	30	65
21.	20	18	24	62
22.	18	12	30	60
23.	22	9	30	61
Total				$\Sigma Y=1544$

Based on the table above, it shows that the scores of student's grammar mastery of the fourth class at Islamic boarding school An-Najah Cindai Alus Martapura academic year 2013/2014, the highest score is 93 which are divided in multiple choice score is 36, completion score is 27, and rearrange the sentences score is 30. The lowest score is 33 which are divided in multiple choice score is 24, completion score is 3, and rearrange the sentences score is 6. And the accumulated score is 1544.

Table 4.5 Frequency Distribution of the Student's Strength in Grammar Mastery of the Third Experiment Class and Classification

No.	Score	Frequency	Percentage	Category
1.	80 – 100	6 students	26.09 %	Excellent
2.	70 – 79	5 students	21.74 %	Good
3.	60 – 69	6 students	26.09 %	Fair
4.	50 – 59	4 students	17.39 %	Bad
5.	0 – 49	2 students	8.70 %	Poor
Total		23 students	100 %	

The table above reveals that the students' grammar mastery of the third experiment class on the categories are 6 students are in excellent category (26.09%), 5 students are in good category (21.74%), 6 students are fair category

(26.09 %), 4 students are bad category (17.39%), and 2 students in poor category (8.70 %).

To know the students' grammar mastery of the fourth class at Islamic boarding school An-Najah Cindai Alus Martapura academic year 2013/2014, the writer uses the accounting of mean formula as follows:

$$M_{the\ third\ experiment\ class} = \frac{\sum X}{N} = \frac{1544}{23} = 67.13$$

The mean score shows that the students' grammar mastery of the fourth class is in fair category in their frequency.

Then, in order to count the t- test to answer the third questions of the research easily, the writer counted the total value based on the mean which has been calculated above to know the Standard Deviation value of this group.

Table 4.6 Working table of data analysis of students' Grammar Mastery of the Third Experiment Class

No	Name	Y	y (Y-My)	y ²
1	Student A	72	4.87	23.72
2	Student B	57	-10.13	102.62
3	Student C	68	0.87	0.76
4	Student D	81	13.87	193.38
5	Student E	74	6.87	47.20
6	Student F	33	-34.13	1164.86
7	Student G	93	25.87	669.26
8	Student H	80	12.87	165.64
9	Student I	77	9.87	97.42
10	Student J	48	-19.13	366.00
11	Student K	62	-5.13	26.32
12	Student L	89	21.87	478.30
13	Student M	72	4.87	23.72
14	Student N	50	-17.13	293.44
15	Student O	55	-12.13	147.14

16	Student P	82	14.87	221.12
17	Student Q	72	4.87	23.72
18	Student R	50	-17.13	293.44
19	Student S	81	13.87	193.38
20	Student T	65	-2.13	4.54
21	Student U	62	-5.13	26.32
22	Student V	60	-7.13	50.84
23	Student W	61	-6.13	37.58
	Total	$\sum Y = 1544$		$\sum y^2 = 4650.72$

3. Significant Difference

To know the comparison of students' grammar mastery between the fourth class and the third experiment class at Islamic boarding school An-Najah Cindai Alus Martapura academic year 2013/2014, the writer uses "t- test". After all the collected data have been processed, the writer analysis them and makes conclusion by using the "t- test" formula:

1. Based on the result of the test in appendix, the writer calculates the mean formula of each group students. To keep the subject identity, the writer just uses number for identifying the subject.

$$M_x = \frac{928}{16} = 58$$

$$M_y = \frac{1544}{23} = 67.13$$

2. The writer count standard deviation of each major by using formula:

$$SD_x = \sqrt{\frac{\sum x^2}{(N - 1)}} = \sqrt{\frac{6292}{16 - 1}} = \sqrt{419.47} = 20.48$$

$$SD_y = \sqrt{\frac{\sum y^2}{(N-1)}} = \sqrt{\frac{4650.72}{23-1}} = \sqrt{211.40} = 14.54$$

3. The writer counts standard error of mean from each major by using formulas:

$$SE_{M_x} = \frac{SD_x}{\sqrt{N-1}} = \frac{20.48}{\sqrt{16-1}} = \frac{20.48}{3.87} = 5.29$$

$$SE_{M_y} = \frac{SD_y}{\sqrt{N-1}} = \frac{14.54}{\sqrt{23-1}} = \frac{14.54}{4.70} = 3.09$$

4. The writer counts standard error from both subject by using formula:

$$\begin{aligned} SE_{M_x - M_y} &= \sqrt{SE_{M_x}^2 + SE_{M_y}^2} \\ &= \sqrt{(5.29)^2 + (3.09)^2} \\ &= \sqrt{(27.9841) + (37.5322)} \\ &= \sqrt{65.5163} \\ &= 8.09 \end{aligned}$$

5. The writer counts t test by using formula:

$$\begin{aligned} t &= \frac{M_x - M_y}{SE_{M_x - M_y}} = \frac{58 - 67.13}{8.09} \\ &= \frac{-9.13}{8.09} \\ &= -1.13 \end{aligned}$$

6. Giving interpretation for “**t**” with consulting **t table**.

- Looking for Degree of Freedom

$$\begin{aligned} df/ db &= (N1 + N2) - 2 = (16+ 23) - 2 \\ &= 37 \end{aligned}$$

- Consulting score of “ db/df” with” t table”
- In significant degrees t table 5% = 2.02
- In significant degrees t table 1% = 2.71

After the writer finds the df (degrees of freedom), which is 37, the writer uses nearest df in the table, that is df at 40. The table is put in appendix.

7. The writer makes a conclusion

Thus, based on the explanation of the formulas above, it is clearly seen that ***t count*** (-1.13) < t table 5% (2.02) < t table 1% (2.71). T_{table} is higher than t_{count} . **H_0 (Zero Hypothesis) is accepted and H_a (Alternative Hypothesis) is rejected.** By this result, the writer concludes that **H_0 is accepted.**

As a result, there is no difference in students’ grammar mastery between the fourth class and the third experiment class at Islamic boarding school An-Najah Cindai Alus Martapura academic year 2013/2014.

B. Discussion

From the statistical measurement above shows that H_0 (Zero Hypothesis) is accepted; H_a (Alternative Hypothesis) is not accepted or rejected, because value of t_{count} is *lower than* of t_{table} (value of critic “**t**”). It means “there is no significance

different in students' grammar mastery of the fourth class and the third experiment class at Islamic boarding school An-Najah Cindai Alus Martapura academic year 2013/2014.

Based on result of the test, there are different highest scores of the test, but for the lowest scores are same. The highest score of the test result of the fourth class is 98, and the highest score of the third experiment class is 93. While the lowest scores for both of classes are 33.

Table 4.2, presents the data about the fourth class where there are 5 students (31.25%) whose score are around 0-49 that classified in Poor Category. There are 4 students (25%) whose score are around 50-59 that classified in Bad Category. There are 2 students (12.5%) whose score are around 60-69 that classified in Fair Category. There are 2 students (12.5%) whose score are around 70-79 that classified in Good Category. Meanwhile, there are 3 students (18.75%) whose are around 80-100 that classified in Excellent Category.

Meanwhile, from the table 4.5, it presents the data about the third experiment class where there are 2 students (8.70%) whose score are around 0-49 that classified in Poor Category. There are 4 students (17.39%) whose score are around 50-59 that classified in Bad Category. There are 6 students (26.09%) whose score are around 60-69 that classified in Fair Category. There are 5 students (21.74%) whose score are around 70-79 that classified in Good Category. Meanwhile, there are 6 students (26.09%) whose are around 80-100 that classified in Excellent Category.

The writer also finds a difference mean score between the fourth class and the third experiment class. One hand, the mean score of the fourth class is 58, it means students' grammar mastery of the fourth class is in Bad Category. In other hand, the mean score of the third experiment is 67.13, it means students' grammar mastery of the third experiment class is in Fair Category.

Although there are different scores and means from both of classes, but by collecting numerical data that are analyzed using mathematically. The writer found the result of the test from the subjects or t_{count} is lower than t_{table} . The conclusion is there is no significant different in students' grammar mastery between the fourth class and the third experiment class.

By this conclusion, it explains that students who are graduated from Islamic boarding school and not graduated from Islamic boarding school do not really significance influence students' grammar mastery.

Nurhusna Hayati (2012) also has already investigate about the comparative study on grammar mastery between Social major students and Science major students at the second grade of SMAN 5 Banjarmasin, and the result is also there is no significance different between them. From the result of hers and this research, the writer concludes that from what kind of schools the students are graduated or the majors they chose does not influence students' grammar mastery much.

In conclusion, people are expected not to give judgment which are the best and the worst schools or majors. The grammar mastery of the students is not based on their schools or majors.