#### **CHAPTER IV**

### **FINDING OF THE RESEARCH**

In this chapter, the writer presents and describes about the research finding of the data. Basically, the objective of the research is to find out whether there is a significant difference between the English vocabulary mastery of the Eighth grade students of MTs NU Raudlatus Shibyan, Peganjaran. Kudus in academic year 2015/2016 taught by using Concept Sort Strategy (CSS). KUDUS

## 4.1 Research Finding

The data taken from pre-test and post-test of English vocabulary mastery of the Eighth Grade students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in academic year 2015/2016 before and after being taught by using Concept Sort Strategy (CSS) are analyzed further by applying the five steps model for hypothesis testing. Through testing the hypothesis by using five steps model, the hypothesis will be tested statistically.

4.1.1 The English Vocabulary Mastery of the Eighth Grade Students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in Academic Year 2015/2016 before being Taught by Using Concept Sort Strategy (CSS)

Before doing treatment, the writer gave pretest to the students of VIII B class of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in academic year 2015/2016 before being taught by using *Concept Sort Strategy* (CSS). It is to measure the English vocabulary mastery of the students before being taught, the writer found the

score of pre-test which can be seen in *table 4.1* that the minimum score is 40, the maximum score is 75 and the mean of pretest is 60 from the total number of students 29. Besides, the standard deviation is 8.7. It indicates that the English vocabulary mastery of the eighth grade students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in academic year 2015/2016 is categorized as **sufficient**.

Table 4.1 The English Vocabulary Mastery of the Eighth Grade Students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in Academic Year 2015/2016 before being Taught by Using Concept Sort Strategy (CSS)

Student's Number	Score of Pretest	Student's Number	Score of Pretest
16	60	16	55
2	65	17	65
3	60	18	65
4	60	-19	50
5	55	20	70
6	60	21	40
7	60	22	55
8	75	23	60
9	50	24	65
10	55	25	75
11	55	26	50
12	65	27	65
13	45	28	45
14	60	29	60
15	65		7 /

Based on the data above, the writer makes the frequency distribution as follows:

Table 4.2 The Frequency Distribution of the English Vocabulary Mastery of the<br/>Eighth Grade Students of MTs NU Raudlatus Shibyan, Peganjaran,<br/>Kudus in Academic Year 2015/2016 before being Taught by Using<br/>*Concept Sort Strategy* (CSS)

Score	Frequency (F)	Percentage (%)		
70-75	3	10.3%		
64-69	7	24.2%		
58-63	8	27.6%		
52-57	5	17.3%		
46-51	3	10.3%		
40-45	3	10.3%		
Total	29	100%		

From the data listed on table 4.2, the bar chart can be drawn as follow:



Figure 4.1 The chart bar of the English Vocabulary Mastery of the Eighth Grade Students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in Academic Year 2015/2016 before being Taught by Using *Concept Sort Strategy* (CSS).

# 4.1.2 The English Vocabulary Mastery of the Eighth Grade Students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in Academic Year 2015/2016 after being Taught by Using *Concept Sort Strategy* (CSS)

After giving treatment for 4 meetings to the eighth grade students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in academic year 2015/2016, the writer gave post-test to them to find out the English vocabulary mastery of the eighth grade students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in academic year 2015/2016 after being taught by using *Concept Sort Strategy* (CSS). The writer found the minimum score of post test is 65, the maximum score is 100, and the mean score is 78.2, meanwhile the standard deviation is 6. 072. It means that the English vocabulary mastery of of the eighth grade students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in academic year 2015/2016 after being taught by a students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus is academic year 2015/2016 after being taught by a students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in academic year 2015/2016 after being taught by using *Concept Sort Strategy* (CSS) is categorized as **good**. The data of the post-test score of the students can be seen in *table 4.3*.

Student's Number	Score of Post test		Student's Number	Score of Post test
1	100	00	16	65
2	80		17	80
3	80		18	95
4	90		19	85
5	75		20	75
6	80		21	80
7	75		22	95
8	70		23	80
9	75		24	80
10	80		25	90

Table 4.3 The English Vocabulary Mastery of the Eighth Grade Students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in Academic Year 2015/2016 after being Taught by Using Concept Sort Strategy (CSS)

Continuatio	on		
11	65	26	70
12	75	27	70
13	60	28	80
14	65	29	90
15	70		

Table 4.4 The Frequency Distribution of the English Vocabulary Mastery of the Eighth Grade Students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in Academic Year 2015/2016 after being Taught by Using *Concept Sort Strategy* (CSS)

No	Score	Frequency (F)	Percentage (%)
1	95-100	3	10.34%
2	89-94	3	10.34%
3	83-88		3.45%
4	77-82	9 2 3	31.03%
5	71-76	5	17.24%
6	65-70	8	27.6%
2	Σ	29	100%

From the data listed on table above, the English vocabulary mastery of the eighth grade students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in academic year 2015/2016 after being taught by using *Concept Sort Strategy* (CSS) can be shown in the bar diagram as follow:



Figure 4.2 The chart bar of the English Vocabulary Mastery of the Eighth Grade Students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in Academic Year 2015/2016 after being Taught by Using Concept Sort Strategy (CSS).

## 4.2 Hypothesis Testing

To determine that there is a significant difference between the English vocabulary mastery of the eighth grade students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in academic year 2015/2016 before and after being taught by using *Concept Sort Strategy* (CSS), the writer must calculate the hypothesis testing statistically. The writer used five steps model to test hypothesis testing. The processing of the data using the five steps model can be seen as follow:

1. Making assumptions and meeting test requirements

Model : Cluster random sampling

Level of measurement is interval ratio

Sampling distribution is normal

2. Stating the null hypothesis.

$$\mathbf{H}_0 = \boldsymbol{\mu}_1 = \boldsymbol{\mu}_2$$

$$(\mathbf{H}_1 = \boldsymbol{\mu}_1 \neq \boldsymbol{\mu}_2)$$

Notes :

Ho : Null hypothesis (there is no significant difference between the English vocabulary mastery of the eighth grade students of MTs Nu Raudlatus Shibyan, Peganjaran, Kudus in academic year 2015/2016 before and after being taught by using Concept Sort Strategy).

 $H_1$  : Alternative hypothesis (there is a significant difference between the English vocabulary mastery of the eighth grade students of MTs Nu Raudlatus Shibyan, Peganjaran, Kudus in academic year 2015/2016 before and after being taught by using Concept Sort Strategy).

3. Selecting the sampling distribution and establishing the critical region.

Sampling distribution = t distribution

 $\alpha = .05$ , two tailed test

df = (N-1)= 29-1 = 28

t (critical) =  $\pm 2.048$ 





### 5. Making a decision and interpreting the result of the t-test.

The writer compared between to= 4.605 with t critical= 2.048, ( $\alpha$ ) = 0.05 (two-tailed) and with degree of freedom (df) = n - 1 = 28. Here, the writer rejected H<sub>0</sub> and accepted Ha since the t-obtained is higher than t-critical. It means that there is a significant difference between the English vocabulary mastery of the eighth grade students of MTs Nu Raudlatus Shibyan, Peganjaran, Kudus in academic year

2015/2016 before and after being taught by using *Concept Sort Strategy* (CSS). The figure can be seen as follow:



Figure 4.3 The Sampling Distribution with Critical Region and Test Statistic Display The writer rejected  $H_0$  (null hypothesis) and accepted Ha (alternative hypothesis) because  $t_0$  falls into critical region. From the calculation and figure

above, the writer can make summary as follow:

Table 4.5 The Summary of t-test Result of the Eighth Grade Students of<br/>MTs NU Raudlatus Shibyan, Peganjaran, Kudus in Academic<br/>Year 2015/2016

Test	Ν	Mean	SD	Df	<b>T-table</b>	T-
	1			1		observation
Pre-test score	29	60	8,7	28	2.048	<mark>4</mark> .605
Post-test score		78,2	6.072			

Table 4.5 indicates that *Concept Sort Strategy (CSS)* gives significant difference on English vocabulary mastery of the eighth grade students of MTs NU Raudlatus Shibyan, Peganjaran, Kudus in academic year 2015/2016. The t observation  $(t_o)$  is 4.605, it is higher than t-table 2.048. It makes the alternative hypothesis is **confirmed**. It means that there is a significant difference between the English vocabulary mastery of the eighth grade students of MTs NU Raudlatus

Shibyan, Peganjaran, Kudus in academic year 2015/2016 before and after being taught by using *Concept Sort Strategy (CSS)*.

