

## **CHAPTER IV**

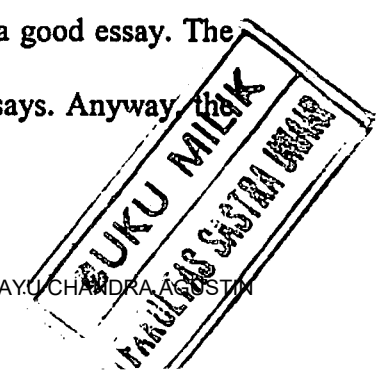
### **DATA PRESENTATION AND ANALYSIS**

This chapter discusses about the presentation and analysis of the data that were gained from observation and questionnaires. The results of observation will be analyzed by the qualitative method and the results of the questionnaires by the quantitative one.

#### **A.THE USE OF BRAINSTORMING TECHNIQUE AS A PREWRITING ACTIVITY OF WRITING ESSAY IN WRITING III CLASS**

##### **1. The Ways To Use The Brainstorming Technique In Writing III**

The main study of Writing III Class is how to make a good essay. In this study, the meetings had been held six times. The use of brainstorming technique was recommended after the lecturer found that in the first meeting, the students were not able to make an essay consists of 300 words within 30 minutes (as an international standard as stated by the lecturer). The lecturer assumed they faced the problem of idea because they had not used any technique in writing process. They just directly wrote a final passage without doing prewriting activity previously, therefore their writings were lack of ideas and did not fulfill the qualification of a good essay. The lecturer, then from observation, did not give any score to their essays. Anyway



writer used the first essay as the estimation to the students' advance (see the Table 4.1).

That's why, to overcome the problem, the lecturer ordered the students to use the brainstorming technique before started writing essay. He also suggested the students to copy the handbook of Alice Oshima and Ann Hogue with the title of *Introduction to Academic Writing (2<sup>nd</sup> edition)* published by Longman in 1997. It was expected that the students would follow the writing process recommended in the book. It also contains the guide to use brainstorming session as prewriting process, which can be done either individually or in-group in writing essay. In daily exercises, they could work the brainstorming technique individually or in-group. However, the essays must be compiled individually after all. Meanwhile in the middle and final test of the semester they had to work individually from the use of brainstorming to the composition. In short, the lecturer allowed the students practicing brainstorming either in-group discussion or individually, but for the essay they must compile an individual writing. Besides giving several topic options to the students, the lecturer also permitted them to create their own topics. The brainstorming then, was held in five to ten minutes. After that, the students could keep the relevant ideas and cross out the irrelevant ones. Before composed it into an essay passage, the students made such outline of the relevant ideas.

From the observation to the students' activity, the writer then, found that the brainstorming technique was used in various ways. The writer classified the brainstorming activity of the Writing III Class students into

- a. listing
- b. clustering, and
- c. free writing

In the following, the writer presents the ways to practice the brainstorming technique done by three students of Writing III Class as the examples. Here, the students chose the same issue of the topic options given by the lecturer

*Big cities worldwide have faced the serious problem of air pollution, which causes high risks for the citizens' health. It is an unavoidable problem, but it can be certainly reduced into a minimum by producing a good policy of the related authorities. Some big cities such as Singapore and London Have solved the problem of air pollution, but our country is still left behind.*

Figure 4.1 The Topic of The Examples of Essays

**a. Listing**

In fact, instead of the other two, this way of brainstorming technique is what was recommended by Oshima and Hogue in the handbook. However, from 43 students as the respondents of this study, only 10 of them use it.

The description of the listing steps is:

- 1) The students chose a topic or a subject and wrote it down onto a piece of paper. For example:

*Air Pollution*

- 2) The students made a list of everything that comes to mind about the topic using words, phrases, and/or sentences without concerned in grammar, the order of ideas, and spelling. The repetition of some ideas was legally allowed. For example:

*Air Pollution*

*The air pollution problem and solving*

- *Air pollution is caused by many factors*

*Vehicles, factory*

- *Air pollution can disturb human's health and hole ozone layer*

- *Our country still can not solve the problem of air pollution*

- *Indonesia is still be a country with high grade of air pollution*

- *Indonesia lose many parts of forests*

- *We can reduce air pollution start from our home*

- 2) In individual activity, the students could select the ideas directly and arranged them into an outline. If the irrelevant idea was exist, it would be crossed out. Meanwhile, in-group discussion, they shared the ideas

together. Here, the students might add or develop some ideas if possible. For example for an outline:

*I. The air pollution, which causes high risks for the citizens' health, can be reduced by producing a good policy of the related authorities.*

- *some big cities abroad have solved the problem*
- *our country is still left behind*

*II. There are some reasons why Indonesia still has the air problem.*

- *the reasons*
- *explanation of each reasons*
- *what we can do to reduce air pollution*

*III. Conclusion:*

*We can take a lesson that we should be careful because the air pollution can disturb our health.*

- 4) Finally, the students composed an essay based on the outline (see the final essay in Appendix pages).

### **b. Clustering**

Most of the students used this way as a brainstorming technique. In the inquiry, 22 students used it to open the 'channel' of their ideas. In a very brief period, the students created a free association from a nucleus

word that is placed in the middle of a page and circled it. The illustration of the steps is:

- 1) The students wrote down the topic or subject onto a blank paper.

For example:



Figure 4.2 The Topic of The Example of *Clustering*

- 2) The students created such free association from the nucleus word as many as possible that generated all ideas in mind about the subject.

Here, any rules of writing were abandoned.

For example:

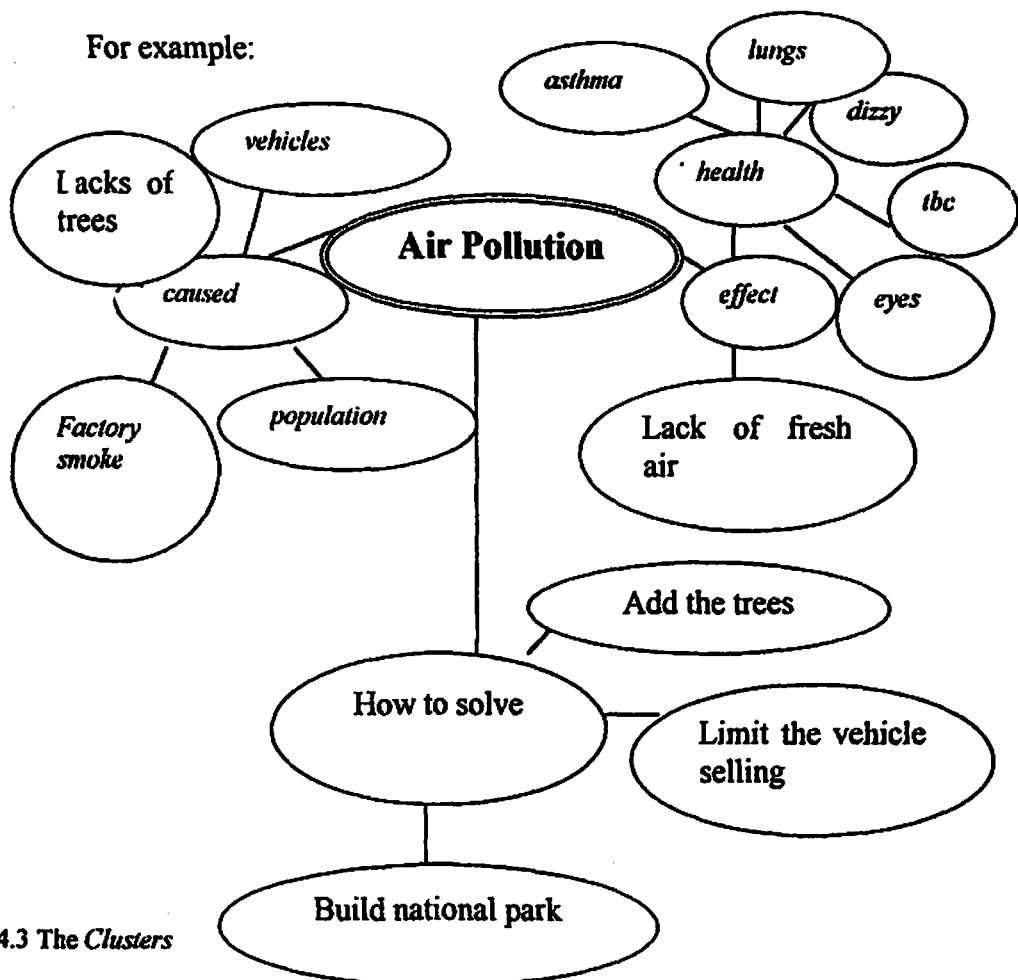


Figure 4.3 The *Clusters*

- 3) The students selected the ideas in clusters and made an outline, in where they could arrange and develop the ideas to write an essay.

For example:

*Paragraph I : The globalization and the growth of population caused pollution in big city, especially the air.*

*Paragraph II : The causes of air pollution : - vehicle*

- *lack of trees*
- *factory's smoke*
- *population*

*Paragraph III: The effect of air pollution.*

- *health effect: - asthma*
  - *lungs*
  - *dizzy*
  - *t b c*
- *lack of fresh air*

*Paragraph IV : How to solve :*

- *add the trees*
- *build national park/garden*
- *replace the old and died trees with the new ones*
- *limited the selling of vehicles*

*Paragraph V : Conclusion*

- 4) Finally, the students wrote an essay based on the outline (see the Appendix pages).

### **c. Free writing**

According to Joy M. Reid in her book *The Process of Paragraph Writing* (1990:12), free writing is another term of brainstorming. In Writing III Class, 11 students of 43 used this technique. The steps were the same with the others above, but the main characteristic of this way of brainstorming is that it was formed like a single paragraph. The students wrote down without stopping in about 3-5 minutes to make all ideas in mind about a subject explored. The absence of the use of grammar and any writing rules was also reflected here.

The illustration of free writing done by Writing III Class students is:

- 1) The students chose a topic and made it the first word or sentence of paragraph writing.

For example:

*Air pollution.*

- 2) The students continued the topic into writing for a period in a single paragraph without stopping. In this process, the students were ignoring any rules of writing but kept concentrating on pouring the ideas as free as possible.

For example:



*Air pollution. Have been the major problems for big cities. Everyday they have to deal with it. What is air pollution exactly? Air is the ocean we breathe. Air supplies us with oxygen, which is essential for our bodies, to live. When the air is... there are many kinds of air, pollution, for examples --black carbon pollution—caused by--... Here in my essay, I'd like to explain about the air pollution in Indonesia, about the causes, and any efforts that has been done to solve this problem comparing with Singapore and London.*

- 3) Similar with the two previous ways, after the students did free writing, they selected the ideas to arrange in an outline.

For example:

*A. Introduction:*

- *What air pollution is*
- *The kinds of air pollution with their causes*
- *The effect for humankind*

*B. – The problem of air pollution in Indonesia*

- i. The causes of air pollution in Indonesia*
- ii. The kinds of efforts to solving the problem*
- iii. The kinds of efforts done by London and Singapore*
- iv. Another way to solve the problem*

*C. Conclusion.*

- 4) At last, the students made a composition of essay (see the Appendix pages).

### **Analysis Of The Ways Of Brainstorming Technique Done By The Students of Writing III Class:**

From the presentation above, it can be concluded that Writing III Class students use three ways to do brainstorming as a prewriting activity. They are listing, clustering, and free writing.

The first way, which is called listing, to which the most experts of teaching consider as the brainstorming technique. Through this way, the students of Writing III Class make one or more lists of words, phrases, or short sentences. The point is to explore all ideas in their mind toward a topic or subject. A list of brainstorming enables the students to pour their ideas as quickly as possible like a shopping list, since it contains such short points of statements in the simplest forms. That's why, most experts recommend it in practicing the brainstorming technique.

The second one is called clustering. This kind of brainstorming technique seems to be the most favorite method of the students of Writing III Class. According to De Porter and Hernacki (1990:3), it is very effective to find many ideas to write, since its function is like a map of thinking. In the inquiry, when the students have got a topic or subject, they write it down on a blank space of a paper. Then, they circle it and create many branches around it, which consist of words or phrases or short sentences. Clustering may take the fastest period to find ideas in brainstorming

technique since a writer can see and find the related ideas one another. The other advantage is that the students could draw a shape of picture from the clusters and the arrows (branches). This can relax their mind and bring a slight of joy under pressure of the demand to make a perfect writing. Later, to make writing will be favorable as well.

However, in library research, the writer found that commonly clustering is distinguished from brainstorming. Some experts classify them into two different kinds of prewriting. Yet, some other experts agree that clustering is a way in brainstorming technique. As stated by White (1986:35), clustering that was developed by Gabriele Rico, is an effective method of brainstorming. It does not concern in appropriateness of writing rules as well as the previous ways above in the process of finding ideas.

The last way is free writing. Actually, free writing is almost similar with the listing. The difference is that in free writing, the students conjure up the ideas in the form of short sentences in a passage, therefore it is slightly like a single paragraph. The process of free writing takes five minutes approximately without stopping. In brainstorming technique, it is forbidden to concern much in any rules of writing. Yet, a passage of free writing is considered very lack of grammar and structures since it has a purpose to prevent any restriction being a disturbance to the process of idea exploration. After that, the students can make an outline from the ideas produced.

Similarly with clustering, free writing in common is classified differently with brainstorming in prewriting methods. It means that free writing, indeed, a kind of

prewriting but it is not a part of brainstorming. Meanwhile, brainstorming is another activity that has form of listing only. However, since the principle is the same, that is to explore and conjure up any ideas of a subject discussion, free writing in later can be included in brainstorming technique.

In brief, the first finding of this study is that the students of Writing III Class use the brainstorming technique by listing, clustering, and free writing. The three of them have the same purpose: to overcome the difficulty in finding ideas to write down into an essay by conjuring up freely all ideas that come to mind about a subject/topic. The principle is not to judge any ideas bad or good, relevant or irrelevant, and related or unrelated by taking aside any rules of writing. There would be the other stages for selection of ideas and outlining, composing essay, and revising. In addition, it has found that the brainstorming there is done individually and in-group in daily activities, but in the main tests of Writing III Class of English Department, the students have to work out individually.

## **2. The Students' Proficiency in Writing Essay After They Use The Brainstorming Technique**

The use of brainstorming in Writing III Class was intended to increase the students' word production. Before they had practiced the brainstorming technique, they could not produce 300 words in 30 minutes; the highest number was only 182 words. Then, the question is whether the brainstorming does really help the students



technique as a prewriting of writing essay in Writing III Class, even though there were a few students who still had less than 300 words. In other words, the students might get much advance in idea finding that represented by their increasing number of words.

### **Quantitative Analysis of The Difference of The Students' Proficiency in First and Last Essay (Concerned With The Word Production):**

To ensure the significant difference mentioned above, the writer tests the results with the formula of *pre-test and post-test one group design* (cited from Arikunto, 1998:300).

$$t = \frac{Md}{\sqrt{\frac{\sum xd}{N(N-1)}}$$

Figure 4.4 The Formula of t-test for Pre-test and Post-test One Group Design

Whereas:

Md : mean of difference between pre-test and post-test.

xd : deviation of each subject (d-Md).

$\sum x^2d$  : total of square deviation.

d.b. : decided by N-1.

The calculation is based on the Table 4.1 above. But first, the writer counts on the value of Md and  $\sum x^2d$  (see the Appendix page). Since the *t* result is 19,605, then

by using  $t_{0,01} \quad t = 3,551$  in  $d.b = N - 1 = 42$ , it can be agreed that there is a significant difference between the first and the final results.

Above all, as stated by the experts in teaching learning field previously, the second finding shows that brainstorming in many circumstances does help the students of writing to solve any problem that related with the deficiency of ideas. Therefore, the lecturer recommended it to the students to raise their production in gaining ideas that is very crucial in the standard of essay requirement.

## **B. THE STUDENTS' ATTITUDES TOWARD BRAINSTORMING TECHNIQUE AS A PREWRITING ACTIVITY IN WRITING ESSAY**

As mentioned in Introduction part, the second statement of the problem is concerning with the students' attitude towards the brainstorming technique. Attitude itself is considered important in a process of learning. It can grow such affection to a subject that then can be a motivation in an effort to be better. On other hand, it can also make a student to be reluctant to do something, including a meaningful effort. In line with this fact, Loree (1965:424) states that derived from his attitude, the individual may take steps to approach or avoid an object. Hence, the writer tries to search out the attitude of the students toward the brainstorming technique. After that, she tries to search out its implication to their essay scores as the final investigation of this study.

### 1. The Value of The Students' Attitudes

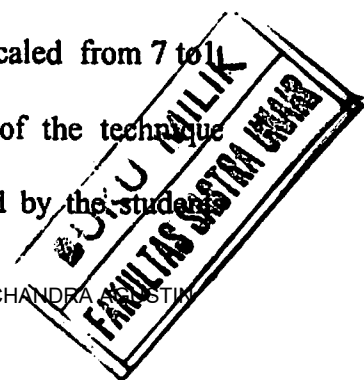
In the form of semantic differential scales, the students' attitude toward the brainstorming technique could be obtained. Based on the theory of attitude stated by Edwards (1957:2), an individual who has associated positive affect or feeling with an object is said to have a *favorable* attitude toward the object, while who has associated negative affect with an object is said to have an *unfavorable* attitude toward the object. From the inquiry, the students' attitude towards the brainstorming technique can be seen in the tabulation below:

<i>Favorable</i>	7	4	10	13	7	0	2	<i>Unfavorable</i>
	7	6	5	4	3	2	1	

Figure 4.5 The Semantic Differential Scale of The Students' Attitude of Affection

From the figure 4.5 above, it can be mentioned that from forty-three students in the inquiry, seven of them chose the value of 7 to represent their affection toward the brainstorming technique. Meanwhile, four students chose 6; ten students chose 5; thirty students, as the largest numbers, chose 4; seven students chose 3; and the rest two students chose 1.

As a consideration, the students then were asked to point the scales of agreement what they might get from the application of the brainstorming technique. There were some statements, which also had to be scaled from 7 to 1. They were the possibilities of positive and negative sides of the technique experienced by them. In fact, the statements were mentioned by the students





themselves in a previous survey, in where they had been asked to state their opinion about the influences of the brainstorming technique they knew.

Then, the positive and negative sides of the brainstorming technique in attitude scales of agreement stated by the students are:

<b>The positive sides of The Brainstorming Technique:</b>	
a. making easy to compose the paragraph	: <u>11 20 8 2 1 0 1</u> 7 6 5 4 3 2 1
b. making easy to deal with main topic	: <u>9 9 15 8 1 0 0</u> 7 6 5 4 3 2 1
c. making the writing more organized	: <u>12 13 9 6 1 2 0</u> 7 6 5 4 3 2 1
d. exploring and developing ideas	: <u>10 15 13 3 1 1 0</u> 7 6 5 4 3 2 1
e. making words/ideas various	: <u>7 14 13 6 1 2 0</u> 7 6 5 4 3 2 1
f. clearing the message of content	: <u>3 8 11 7 1 2 1</u> 7 6 5 4 3 2 1
g. training to think and work quickly	: <u>7 6 15 10 5 0 0</u> 7 6 5 4 3 2 1
h. the result is more qualified:	: <u>11 8 8 12 3 1 0</u> 7 6 5 4 3 2 1
<b>The negative sides of the brainstorming technique:</b>	
a. making it more unfocused	: <u>1 2 4 11 7 11 7</u> 7 6 5 4 3 2 1
b. needs more knowledge to do it	: <u>3 11 6 10 8 2 3</u> 7 6 5 4 3 2 1
c. the writing process is longer	: <u>6 5 12 7 5 6 2</u> 7 6 5 4 3 2 1
d. lack of grammar in essay	: <u>1 5 7 8 10 4 8</u> 7 6 5 4 3 2 1
e. producing many redundant ideas	: <u>2 7 5 4 8 9 8</u> 7 6 5 4 3 2 1
f. difficult to manage/arrange the ideas	: <u>2 1 7 13 4 9 7</u> 7 6 5 4 3 2 1
g. the ideas are too broad/not specific	: <u>3 6 7 11 4 5 7</u> 7 6 5 4 3 2 1

Figure 4.6 The Students' Attitudes of Agreement To The Positive and Negative Sides of The Brainstorming Technique

In the positive sides scales, it can be seen to the statements below:

- 1) **Brainstorming makes easy to compose the paragraph:** most students (20) chose 6; while the rest ones, eleven students chose 7; eight students chose 5; two students chose 4; one student chose 3; and one student chose 1.
- 2) **Brainstorming makes easy to deal with the main topic:** fifteen students as the largest number chose 5; nine students chose 7; nine students chose 6; eight students chose 4; one student chose 3; and one student chose 1
- 3) **Brainstorming makes the writing more organized:** thirteen students chose 6; while the rest ones, twelve students chose 7; nine students chose 5; six students chose 4; two students chose 2; and one students chose 3.
- 4) **Brainstorming explores and develops the ideas:** fifteen students as the largest chose 6; twelve students chose 5; ten students chose 7; four students chose 4; one student chose 3; and one student chose two.
- 5) **Brainstorming makes words and ideas more various:** fourteen students as the largest chose 6; thirteen students chose 5; seven students chose 7; six students chose 4; two students chose 2; and one student chose 3.
- 6) **Brainstorming makes the message of the content clear:** twenty one as the largest chose 5; eight students chose 6; seven students chose 4; three students chose 7; two students chose 2; one student chose 3; and one student chose 1.

- 7) Brainstorming trains to think and work quickly: fifteen students chose 5; ten students chose 4; seven students chose 7; six students chose 6; and five students chose 3.
- 8) Brainstorming makes the result is more qualified: twelve students chose 4; eleven students chose 7; eight students chose 6; six students chose 5; three students chose; and one chose 1.

Meanwhile, in the negative sides it can be seen to the statements below:

- 1) Brainstorming makes the thinking process more unfocused: eleven students chose 4; eleven students chose 2; seven students chose 3; seven students chose 1; four students chose 5; two students chose 6; one students chose 7.
- 2) Brainstorming needs more knowledge to do: ten students chose four, eleven students chose 6; eight students chose 3; six students chose 5; three students chose 7; three students chose 1; and two students chose 2.
- 3) Brainstorming makes the writing process longer: twelve students chose 5; seven students chose 4; six students chose 7; six students chose 2; five students chose 6; five students chose 3; and two students chose 1.
- 4) Brainstorming brings lack of grammar in result: ten students chose 3; eight students chose 4; eight students chose 1; seven students chose 5; five students chose 6; four students chose 2; and one students chose 7.
- 5) Brainstorming produces many redundant ideas: nine students chose 2; eight students chose 3; eight students chose 1; seven students chose 6; five students chose 5; four students chose 4; and two students chose 7.

- 6) Brainstorming makes difficult to arrange the ideas: thirty students chose 4; nine students chose 2; seven students chose 5; seven students chose 1; four students chose 3; two students chose 7; and one students chose 6.
- 7) Brainstorming makes the ideas too broad and not specific: eleven students chose 4; seven students chose 5; seven students chose 1; six students chose 6; five students chose 2; four students chose 3; and three students chose 7.

#### **Quantitative Analysis of The Students' Attitudes:**

To analyze the attitudes of the students, the writer uses a formula (see the Appendix pages). From the calculation, the mean value of the students' attitudes toward the brainstorming technique can be obtained. It is 4.6.

It is not a high value since the median is only 4. The main reason of the fact here is that the most students, considered 13 ones, chose 4 indeed. Therefore, the mean value results much centered in that mark. However, the mean value above is still included in positive attitude since it tends to be nearer to the favorable side than to the unfavorable one ( $> 4$ ). In other words, it can be concluded that the students' attitude towards the brainstorming technique as a prewriting activity in writing essay is positively favorable.

Using the same formula, the mean values of each statement of the students' attitudes in the scale of agreement can be found. Hence, the presentation of them from the highest to the lowest degrees are:

No.	Positive sides	Scale							Mean of attitudes
		7	6	5	4	3	2	1	
1	Making it easy to make the paragraph	11	20	8	2	1		1	5,79
2	Exploring and developing ideas	10	15	12	4	1	1		5,61
3	Making the writing more organized	12	13	9	6	1	2		5,53
4	Making the words/ideas more various	10	14	13	6	1	2		5,32
5	Making easy to deal with the topic	9	9	15	8	1			5,3
6	The result is more qualified	11	8	8	12	3	1	1	5,2
7	Training to think and work quickly	7	6	15	10	5			5
8	Clearing the message of the content	3	8	21	7	1	2	1	4,88
Mean of attitudes total									5,36

Table 4.2 The Mean Values of The Students' Attitudes To The Positive Sides of The Brainstorming Technique

No.	Negative sides	Scale							Mean of attitudes
		7	6	5	4	3	2	1	
1	The writing process is longer	6	5	12	7	5	6	2	4,44
2	To do it needs more knowledge	3	11	6	10	8	2	3	4,37
3	The ideas are too broad and not specific	3	6	7	11	4	5	7	3,83
4	Lack of grammar in result	1	5	7	8	10	4	8	3,48
5	Producing many redundant ideas	2	7	5	4	8	9	8	3,41
6	Difficult to arrange the ideas	2	1	7	13	4	9	7	3,34
7	Making it more unfocused	1	2	4	11	7	11	7	3,09
Mean of attitudes total									3,64

Table 4.3 The Mean Values of The Students' Attitudes To The Negative Sides of The Brainstorming Technique

Finally, it can be obtained that the mean value of the whole positive sides is 5.36. Meanwhile, the mean value of the whole negative sides is only 3.64. It means that the third finding shows that even though the mean value of the students' attitudes of affection is not too high, the mean value of the students' attitude towards the positive sides is higher than towards the negative ones.

## **2. The Correlation Between The Students' Achievement And Their Attitudes Toward The Brainstorming Technique**

The increasing of the students' idea gain was not the only principle for the lecturer in giving score to their essay. The consideration of the lecturer to mark the students essay involved in the structure of essay, main idea development, grammar and word usage, and well-articulated analysis. The brainstorming technique above has been proved can help the students in ideas finding and development. Meanwhile, the final essays, which the students submitted to the lecturer, should come again with such rules in writing after all.

However, the students' attitudes vary in values toward the use of brainstorming technique although it is useful for them. Even, some students seemed reluctant to use this technique since the negative sides of the technique exist. In response to this fact, the writer tries to search out the role of the students' attitude values in the essay scores reflected on the correlation between them. Here, the essay scores were pointed from 50 to 100 (see the Appendix pages). The correlation between the scores and the students' attitudes toward the brainstorming technique can be analyzed by a quantitative method then.

According to Glass & Hopkins (1987:70), a correlation can be searched out by a formula of Pearson Product Moment. It derived a measure of relationship, the product moment coefficient of correlation, signified by 'r'. The formula is:

$$r = \frac{[n.(xi.yi)] - [\sum(xi).(\sum yi)]}{\sqrt{[n.xi^2 - (\sum xi)^2][n.yi^2 - (\sum yi)^2]}}$$

Figure 4.7 The Formula of Pearson Product Moment

Whereas:

**n** : the total amount of the data

**xi** : the score of independent variable at respondent -i (the essay scores)

**yi** : the score of dependant variable at respondent -i (the students' attitude)

In the earliest stage, the writer changes the essay scores into ordinal numbers,

hence the highest score get to be the highest number:

100-	= 6
90-99	= 5
80-89	= 4
70-79	= 3
60-69	= 2
50-59	= 1

Then, the writer finds out the mean values of the students who got the scores above:

100-	= 5
90-99	= 5,58
80-89	= 4,72
70-79	= 5
60-69	= 4,46
50-59	= 4,73

Finally, the writer put the numbers into a table and calculates them with the formula,

where the essay score numbers considered as 'xi' and the students' attitudes as 'yi':

Scores	xi	xi <sup>2</sup>	yi	yi <sup>2</sup>	xi . yi
100-	6	36	5	25	30
90-99	5	25	5,58	31,14	27,9
80-89	4	16	4,72	22,28	18,88
70-79	3	9	5	25	15
60-69	2	4	4,46	19,89	8,92
50-59	1	1	4,73	22,37	4,73
Σ	21	91	29,49	145,68	105,43

Table 4.4 The Tabulation of 'xi' (The Students' Scores) and 'yi' (The Students' Attitudes Toward The Brainstorming Technique)

From the calculation (see the Appendix pages), the  $r$  value is 0,107. Hence, it can be stated that the statistical hypothesis is:

$H_0$  = There is no correlation between the students' scores and their attitudes toward the brainstorming technique.

$H_1$  = There is correlation between the students' scores and their attitudes toward the technique.

Where:  $H_0$ :  $r = 0$

$H_1$ :  $r \neq 0$

The writer then uses t-test formula to test the hypothesis:

$$t = r \sqrt{\frac{n-2}{1-r^2}} = 2,15$$

With t table in  $t_{0,01} = 2,132$ , the writer draws the graphic below:

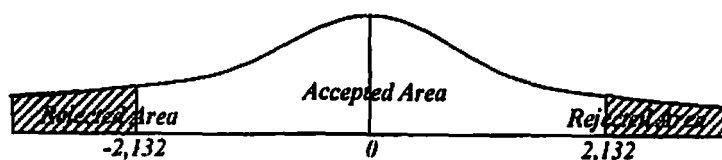


Figure 4.8 Critical Area of T-test



Finally, she concludes that  $H_0$  is rejected and  $H_1$  is accepted. It can be assumed then that there is correlation between the students' scores and their attitudes toward the brainstorming technique in writing essay.

According to Sugiyono (2002:216), approximation of the degrees of correlation is interpreted in the following way:

0,00 – 0,199    very low

0,20 – 0,399    low

0,40 – 0,599    moderate

0,60 – 0,799    high

0,80 – 1,00    very high

Therefore, the correlation calculated above is considered very low since the value result is only 0,107.

By using the regression, the value of determination coefficient [ $r^2$ ] can be decided. In the result above,  $r = 0,107$ , then the  $r^2$  is 0,011449. Hence, the influence value of the students' attitudes to the score of essay can be considered only 1,14%, while the rest of 98,86% is determined by other factors. Even though it is not a high value, however, it still contributes to the students' scores.

## INTERPRETATION :

From the data presentation, it could be seen that the use of brainstorming technique in Writing III Class is intended to overcome the difficulty in finding and organizing ideas to construct an essay. Actually, all kinds of writing mainly concerns in the existence of proper ideas, moreover essay. As the most frequent academic writing, essay must have effective and completed ideas, so that it can be understandable for the readers. However, the students often trapped in an unfortunate condition in where they had no ideas in writing. The teaching writing experts name it the *writer's block* (White, 1986:35). It means that the ideas, which in fact have been already in their mind, could not be expressed out.

It also happened to the students of Writing III Class in the first meeting. When the lecturer ordered them to write an essay consists of 300 words in 30 minutes, they could not finish the task.

Therefore, to anticipate the problem, the lecturer gave them a solution. That is the brainstorming technique. This technique can be done in several ways. The research finding shows that the students of Writing III Class use brainstorming by three ways: listing, clustering, and free writing. The last two of them commonly classified separately from brainstorming, but all of them included in prewriting activity. Since the point is the same, conjuring all ideas without concerning with grammar and any rules of writing, the students used them similarly when the lecturer ordered them to practice the brainstorming technique. In line with them,

Goldman and Hirsch (1986:39) states that brainstorming can be done in whatever forms that a writer feels most efficient, including lists, notes, and diagrams.

The difference between the results of pre-test and post-test is very significant. It means that the brainstorming technique does help the students in exploring ideas reflected on the high gaining of their number of words in the last essays. This finding also proves that the role of brainstorming to turn on the right brain function in writing process works. As we know before, the right brain is the 'manager' of ideas in mind. The right brain functions in visualizing things from many details that much needed in writing. De Porter and Hernacki (1992:178) also say that without brainstorming or any other prewriting techniques, writing will be very difficult to compose until the right brain is opened first yet.

The mean of the students' attitudes toward the use of brainstorming technique in writing an essay is considered positively favorable. It means that most of them required it in the essay writing. According to the calculation of the mean values of their attitudes, the most credible advantage of brainstorming in positive sides is that it makes easier to compose the paragraph. Meanwhile, the second rank is that it can explore and develop their ideas. From here, it can be assumed that the technique is also effective to solve the problem of idea, then to compose the paragraph is easier because the ideas are already served in such lists, clusters, or free passage (writing) and arranged in the outlines.

Meanwhile, the highest value in the negative sides is that the brainstorming makes the writing process longer. It is resulted from the added time they needed

to practice the technique as a prewriting activity, instead of directly wrote into the essay. The second rank is that they needed to have much knowledge to practice it. It makes a sense, since brainstorming is involving the exploration of ideas and awareness in human's mind. Therefore, the lecturer suggested the students to do reading any time. It could add their knowledge to become ideas in an essay, while the brainstorming could help the students in its role as the 'reminder or explorer of the ideas in mind'.

However, the lecturer did not only give the score based on the idea developing. He also considered other aspects of writing rules, including structure and grammar. Due to that, the statistical calculation shows that there is correlation between the scores and the students' attitudes toward the brainstorming technique. The result value is not high, but very low. The influence of the attitudes then, tabulated from the regression, is only 1,14% to the essay score.

Above all, there are two interpretations about this fact. First, the attitude might influence the students to practice the brainstorming technique so that their writing proficiency improved since their ability to express ideas increasing. On the contrary, the second interpretation is that some students have not been influenced in score of essay with or without the brainstorming technique. Therefore, even though their attitudes toward the technique were low, their scores in essay were still adequate and otherwise.

## **CHAPTER V**

## **CONCLUSION**