Chapter Four

Research Finding and Discussion

In this chapter, I deliver the research findings and the discussion of the data gotten to find out the purpose of the research by calculating all the data systematically by using the certain formula. In this research the main purpose is to know if there is a significant difference between the ability in writing descriptive text to the tenth grade students of *SMK Wisudha Karya* Kudus in academic 2015/2016 taught by using clustering and using guiding questions.

Normality and Homogeneity Test

Before conducting statistical calculation using independent sample test the precondition testing of gain of pre test and post test was tested. In this study I conducted two tests. They are normality test and homogeneity test.

Test of normality

Test of normality was conducted in all data of pre-test for both experimental and control group. It was important to show that sample comes from a normally distributed population.

From the data of posttest in the control group, the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic 2015/2016 taught by using guiding questions found that the highest score was 76 and the lowest score was 50. Meanwhile the data of pre-test in the experimental group, the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic 2015/2016 taught by using clustering found that the highest score was 88 and the lowest score was 42.

The criteria of the normality test are:

If chi square test < numerical table the data distribution is normal.

If chi square test > numerical table the data distribution is unnormal.

Based on the calculation, the value of chi square test is 20.000 (see appendix 6), meanwhile chi square table is 30.14 with the significance level 5 %. Chi square test is less than chi square table so the data of post test of control group is distributed normal. On the other hand, the chi square test of experimental group is 13.659, meanwhile chi square table is 45.642 with the significance level 5%. Chi square test is less than chi square table so the data of post test of control group is distributed normal.

From the analysis data of normality test, the data of post test of control and experimental group are distributed normal so the hypothesis testing used parametric statistic. So the hypothesis testing used independent t-test.

Test of homogeneity of variance

Homogeneity of variances was conducted to know whether the score of one group had homogenous variants with the score of the other group or not. The variances of the samples do not differ by an amount that is statistically significant (Best, 1981: 278). The hypothesis in this test was as follows:

Ho :homogeneity of variances$(\sigma_1{}^2 = \sigma_2{}^2)$

Ha :the alternative hypothesis $(\sigma_1{}^2 \neq \sigma_2{}^2)$

Note:

$\sigma_1{}^2$: Variances of pre-test.

$\sigma_2{}^2$: Variances of post test

The null hypothesis is accepted if probability (P-value) > α (significance level 5%) and it is said that the variances are homogenous. Meanwhile, the alternative hypothesis is accepted if P-value < α and it is said that the variances are not homogenous.

Test of homogeneity was conducted in data of pre-test for both experimental and control group. From the data of pre-test in the control group, the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic 2015/2016 taught by using guiding questions found that the highest score was 66 and the lowest score was 51. Meanwhile the data of pre-test in the experimental group, the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic 2015/2016 taught by using clustering found that the highest score was 84 and the lowest score was 43.

Table 4.1 test of homogeneity of variances

Test of Homogeneity of Variances

VAR00001

Levene Statistic	df1	df2	Sig.
1.327	8	20	.286

0.286 > 0.05
So the data is homogeny.

Based on Lavene's test is supported as shown above, the value 0.286 is higher than 0.05, it means that it is homogenous.

Research Finding

After giving treatment in the experimental group by using clustering and control group without using clustering, the posttest in both of them, to find the

ability in writing descriptive text of the tenth grade student of *SMK Wisudha Karya Kudus* in academic year 2015/2016 who are taught by using clustering and using guiding questions I got the data as follows:

The ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya Kudus* in academic year 2015/2016 taught by using clustering

From the score of the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using clustering, I found that the score runs from 42 to 88. The mean is 67.2, and the standard deviation is 9.8. It means that the ability of writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using clustering can be categorized as average based on criteria of Bordman and Fry Den Berg (2002).

After conducting the post-test in the experimental group to measure the ability in descriptive text of the tenth grade student of *SMK Wisudha Karya Kudus*, I find out the highest score is 88 and the lowest score is 42.

Gain score is measured by the data of pretest and posttest. Hake (Meltzer, 2002; Archambault, 2008) formulates the gain score as follows:

$$\text{N-gain} = \frac{S\,post - S\,pre}{S\,max - S\,pre}$$

Notes:

S post   : score of posttest

S pre   : score of pretest

S max   : maximum score

After calculating the data, it is found that the gain score is 0.14 which is categorized as low, based on the criteria on table 4.2.

Table 4. 2 criteria of gain score

Gain	Criteria
$0,7 \leq$ N-gain ≤ 1	high
$0,3 \leq$ N-gain $\leq 0,7$	medium
N-gain < 0.3	low

The ability in writing descriptive text of the tenth grade student of *SMK Wisudha Karya Kudus* in academic year 2015/2016 taught by using guiding questions

From the data of posttest in the control group, the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using guiding questions found that the highest score is 76 and the lowest score is 50. The gain score is 0.12.

Based on the table, it shows that the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using guiding questions moves from 50 to 76. The mean is 62.5, and the standard deviation is 5.6. Thus, it can be said that the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using guiding questions is categorized as average based on criteria of Bordman and Fry Den Berg (2002). According to Bordman and Fry Den Berg (2002) the description of the scores was classified into four criteria as follows:

Exceptional   : 100-89

Very good   : 88-76

Average   : 75-63

Poor   : 62-0

Hypothesis Testing

To find out if there is a significant difference between the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by and without using clustering, I analyzed the data using t-test formula on the level significance 0.05 and the degree of freedom (Df) 79 which is gained from (N1+N2)-2. I used independent sample test in this research. It is used to test whether the means in two groups are equal. These two groups i.e experimental and control group are considered as independent samples because none of the cases belong to both groups simultaneously.

The hypothesis in this test was as follows:

Ho   : $(t_o < t_t)$

Ha   : $(t_o > t_t)$

Note:

t_o : t-observation / t-test

t_t : t-table

Table 4.3 Independent Samples Test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Metode	Equal variances assumed	6.070	.016	2.646	79	.010	4.71951	1.78371	1.16913	8.26990
	Equal variances not assumed			2.663	64.218	.010	4.71951	1.77256	1.17865	8.26037

The independent samples test as shown as table 4.3 indicates the value of t-observation (t_o) based on the result of the calculation is 2.663. Meanwhile, on the level significance 5%, the value of t-table (t_t) is 1.990. Because t-observation is higher than t-table (t_o= 2.663 > t_t 1.990), so the null hypothesis (Ho) is rejected. Meanwhile the alternative hypothesis (Ha) is confirmed. Therefore, I concluded that there is a significant difference between the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using clustering and using guiding questions.

Discussion

In this section, I discussed about the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using clustering and using guiding questions.

The ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using clustering

After analyzing the data, I found the gain score of the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using clustering is 0.14. The mean is 67.2 and the standard deviation is 9.8. Based on the table of interpreting score, the mean belongs to average ability; which has the range 63-75 based on criteria of Bordman and Fry Den Berg (2002).

Actually writing is not easy skill to master for students. It has complex criteria that requires mastery is vocabulary and grammar but also mechanic, idea, and organization (Brown, 2001). One of material that is taught for students is descriptive text. In the text, they have to reach the goal by describing the information of particular thing/ person/place to the readers. In describing the thing/person, they have to present their ideas in a good organization. Sometimes, they have trouble finding much to talk about and have great difficulty coming up with something to write about. Therefore, teacher as facilitator has to offer guidance in helping them to engage in thinking process of composing text. He or she has to direct them toward finding their own information and style through prewriting activity. Prewriting can help to generate ideas and gatherr information before writing to enhance the composing process (Palmer, 1994). The students can be freely and quickly generate idea once they know. According to Palmer (1994) ample time must be scheduled for prewriting to establish a good foundation on

which to build the other stages of writing. He adds prewriting activities take many forms and often involve no actual writing with paper and pencil.

One of prewriting activity that can help the students generate, expand, clarify and organize idea is clustering (Palmer, 1994). By writing a topic in the center of paper and draw a circle around it then write whatever ideas comes to mind in circles around the core, the students can gather and analyze the information easily. Besides of that clustering can drive creativity. It is caused clustering add fresh idea and original insight are generated in right brain.

In teaching learning of experimental class, I used some steps; observing, questioning, associating, experimenting, and communicating. The first was observing. In this step, I asked students to observe the picture (national person) given. Then in second step that is questioning, I gave the students questions related to topic. Then he elicited some answers by using clustering. When the students answer the questions, I made clustering based on students' answers. They could gather and organize much information related to the topic. Then they also ask some questions about the other national persons, the achievement, the weaknesses, etc. In the next step, associating, the students compare the bad and good character of the persons and find out the structure, purpose and grammatical feature of the text by discussing with other students. In identifying meaning and generic structure, I used clustering. After identifying the text, I and students understand more the meaning of each paragraph by making clustering. Starting from the first paragraph, the teacher drew circle that include the meaning of the paragraph in center of white board. In the next paragraph she drew circles that

include meaning of other paragraph around it. After that those were connected by lines. By that clustering the students were more easily and effective to catch the meaning of whole of text. It also helped them to identify generic structure. By looking at the circle of center, they found it as identification. The others circle that around it were as descriptions. The next step was experimenting. In this activity the students started their activity by composing a text with their friend in pairs. Before starting composing a text, they made clustering to help them generate ideas. After finishing composing text, they got discussion about the topic. In this step, they could learn how to develop a good relation with the other students and shared their ideas. They enjoyed in this activity. The students may think of this activity as a game and a drawing because it was fun. The last step was communicating. The students present the descriptive text in front of the class. In presenting the text, they use the clustering to make them easier to explain about what they are presenting about.

In teaching activity although most of them moved quickly through clustering, but others needed much time. They got the problem in starting compose a text because they needed to draw in another paper. But in the next they could solve the problem by finding out many ideas of that clustering.

After analyzing the result of post test, most of them had great finding and analyzing ideas, the organization of each paragraph were also good. Just view of students got difficulties about content, and organization. Therefore; the teacher explains more and facilitates them about the difficulties by giving examples.

In the final goal of teaching writing using clustering, it can be seen that clustering had given significant contribution in improving their writing ability. The result of data shows that the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using clustering had increased from the grade of poor to average.

The ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using guiding questions.

Based on the posttest score, the ability of writing descriptive text of control group has the mean 62.5, and the standard deviation is 5.6. This score is categorized as average which has the range 0-62 based on criteria of Bordman and Fry Den Berg (2002).

In the control class, the learning process of writing is same as the experimental class except clustering. Like experimental class, I also used some steps; observing, questioning, associating, experimenting, and communicating. The first was observing. In this step, I asked students to observe the picture (national person) given. Then in second step that is questioning, I gave the students questions related to topic. Then they also ask some questions about the other national persons, the achievement, the weaknesses, etc. In the next step, associating, the students compare the bad and good character of the persons and find out the structure, purpose and grammatical feature of the text by discussing with other students. After identifying the text, I and students understand more the meaning of each paragraph by using guiding questions. They identified the

meaning of whole of text. But in this step most of students couldn't catch the meaning of the whole of text well. When I asked them about that, they took times to answer. They also could not explain the meaning of the text. The next step was experimenting. In this activity the students started their activity by composing a text with their friend in pairs. In starting compose a text, they can make some paragraphs easily but after that they got difficulties to continue the text. They got stuck in generating idea. That problem also was faced by the students in composing a text individually. They got stuck to find out the ideas, moreover elaborating them. When they presented the description, they just wrote point of description without the elaborations. Actually in this case, the students had to describe the reader about a particular thing/person/place. If the students cannot generate idea, the goal of text will be not extended well. The last step was communicating. The students present the text to other friends. The presentation was not organized well because the structure was bad. They were also confused to explain the text composed.

The significant difference between the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using clustering and using guiding questions.

After referring to the collected data, I got t-test of the ability in writing descriptive text taught by using clustering is different from those using guiding questions. I got t-test 2.663. With the total number of subject 81 students and the degree of freedom (df) is 79 at the 5% level of significant, it is found that t-table is 1.990. Comparing both of the t-values, it can be known that t-test is bigger than t-

table (2.663>1.990). It means that the hypothesis of this research that there is a significant difference between the ability in writing descriptive text of the tenth grade students of *SMK Wisudha Karya* Kudus in academic year 2015/2016 taught by using clustering and using guiding questions is confirmed.

In step of observing and questioning, the experimental class got illustration about material, purpose, generic structure of text. By writing a topic that was asked by I to the students in the center of paper and drew a circle around it then wrote whatever ideas comes to student's mind in circles around the core, I and the students could gather and analyze the information easily. They also knew the step before composing a text so they could generate many ideas that were needed in drafting. On the other hand, control class was just got illustration about the material without knowing the purpose, generic structure, and the activity before composing a text.

Next on the step of associating, experimental class could identify the meaning, the purpose and the generic structure of the text easily and interesting by using clustering. They understood more the meaning of each paragraph of whole of text. They also identified the generic structure by looking at the circle of center, they found it as identification. The others circle that around it were as descriptions. Then they could found the conclusion and purpose of the text easily. In contrary, the control group just got long explanation from the teacher. The students cold not catch the explanation well because they felt bored.

In the step of experimenting, the students started their activity by composing a text with their friend in pairs. Although discussing with their friend, but

obstacles were faced by the students in generating idea of control group. They got

difficulty to found out the ideas that related to the text moreover explaining them.

Although getting ideas, most of them just write the point of argument without

elaborating them. So they could not be successful in describing to the readers

about the topic it is another matter with experimental class that could catch many

ideas and also generate them. By discussing with their friend, they could change

their mind each other. Finally they could produce a good text. In composing the

text individually, the experimental class was better than control group in

generating idea and organization. The experimental class that was supplied by

prewriting technique clustering did not find problem in expanding idea. They also

had organization of text well. So, the purpose of descriptive text to describe the

particular thing/person/place could be extended. It was different with control

group that often got stuck in generating idea. They had no planning before starting

compose a text. So they got the problem when composing it.

In the last step, communicating, the experimental class can present the text

composed well. They were also able to present well organized using clustering.

Meanwhile control class could not present structurally.

In teaching writing process, the experimental class needed times in

preparing before composing a text. They had to make planning by making

clustering to find out idea. In the beginning of the process, they were left behind

than control group. When the control group got ready to write in some sentences,

the experimental class was still looked for and explained the ideas. But in the next

process the experimental class got better than the control class. The control class

got difficult in generating idea so they need more times to find out without planning. Last, in the final project of the experimental class was more fast and good in finishing the text. Moreover content and organization of the text was better than control group. Finally, the use of clustering can be successful applied as prewriting technique in teaching English writing analytical exposition.

Based on the research finding an the explanation above, it can be concluded that the writing ability in descriptive text for the tenth grade students of *SMK Wisudha Karya Kudus* who are taught by clustering is better than who are taught without using clustering. The students who are taught by using clustering were more creative and receptive in teaching English. On the other hand, the students who are taught by using guiding questions were not responsive enough. So, the use of clustering works well in improving the students' writing ability in descriptive text.