CLUSTERING TECHNIQUE IN GENERATING THE STUDENTS' IDEAS

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Abstract

This research was conducted to know the influence of clustering technique in generating the students' ideas in prewriting. The purpose of this research was to find out does the clustering technique influence the second grade students in generating their ideas in prewriting of explanation text. The research used a pre-experimental design. The design used one group pre-test – post-test. The main instrument in this research is a test. The sample of this research was the second grade students of SMAN 1 Kuta Baro. From the result, it was found that the mean score of pre-test was 50 and the mean score of post-test was 74.06 and the t-score was 16.10 and t –table was 2.13. It meant that t-score was higher than t-table. From the result above, H_a was accepted and H_0 was rejected. It can be concluded that clustering technique is a good technique in prewriting activity. It is very useful for students in generating ideas. It also helps them to enhance their ability and motivation. Therefore, the application of clustering technique has a great influence on the students' performance and attitude towards the learning process especially in generating ideas in writing.

Keywords: *clustering technique, generating ideas, prewriting*

INTRODUCTION

The proficiency in English consists of four language skills namely listening, speaking, reading and writing. Among these skills, writing is the most difficult skill for students to learn. It is supported by Langan as cited by Eromana & Hafizh (2014) that writing is the most difficult skill for a second language learner to master. It means that the students always find some difficulties in learning English writing such as when they begin to write, the students are struggling to find the ideas, then when they write, they are having difficulty on how to transfer their ideas into writing using appropriate vocabulary, the use of grammar and writing organization.

The problems mentioned above do exist based on the researchers' observation at one of school in Aceh Besar. The students had many problems in their writing practice. It was proven that they were confused when the writer asked to write any topics. It meant that when the students write something, they hard to think about what they are going to write. In fact, one of the major difficulties in writing is how to find the ideas. In this case, the students often copied the text in their assignment. It was maybe they did not have ideas to write. Probably, they lost their ideas when they started to write. This becomes the major problem that often faced by the students about how they generate their ideas into written form.

This situation often makes the students stressful in generating their ideas which then leads to the ignorance of the writing practice. Therefore, the students need to plan what they write and how to transfer their ideas. To solve their problem, they need to be guided by the teacher during the writing process. One technique that can help the students to generate their ideas is clustering technique. According to Langan as quoted by Eromana & Hafizh

(2014), clustering technique is a technique that can be used to generate an idea in writing. It seems that the technique is very useful for the students because it can make the students to explore many ideas without hesitate or doubt and help them in solving their problem.

Clustering technique is a process of discovering and organizing the ideas and putting them on the paper. In order to make clear what clustering technique is, there are some definitions presented by experts. The clustering technique was presented by Gabriele Lusser Rico who is a professor of English and Creativity in San Jose State University in California, in 1980 (Adriati, 2013). Moreover, clustering technique is a technique used to see visual form or circle of their ideas and capable to make the students think more active in making new unity (Kalandadze, 2007). It means that the technique is very useful for students in expressing their ideas before they make a draft. The clustering technique is very appropriate to develop ideas because it helps students to take out their ideas and make them easy to understand what should they do based on the instruction of clustering.

In addition, the clustering technique is the most commonly technique used in prewriting activity. It is a way of brainstorming technique that uses the right brain, non-linear, visual structures of ideas, whole pattern and part of their mind (Folit, 2009). Moreover, the clustering technique makes the students more creative and enjoyable part of the students' brain to associate their ideas which the students are able to find the patterns and create meanings (Folit, 2009).

Furthermore, clustering technique is another prewriting technique that allows the students to gather ideas. It also suggests the ways in which the distinct ideas should be related logically which help the students can get a sense of how the writing could eventually be arranged (Rambo, 2014). It seems that clustering is one of the effective ways for prewriting activity. It can explore many ideas from the mind which helps the students to develop an idea before starting the writing activity.

There are some steps in using clustering technique (Folit, 2009). First, write the main topic in the middle of the paper and circle the topic. Second, write down new ideas related to the main topic and take a line of the central idea. Third, continue to write the ideas until they run out or time is finish and then make a circle. Finally, write the ideas without hesitation about perfection.

In clustering, the students may use boxes and circles to connect among their ideas with branches. In this case, the students can explore many ideas to connect to each other.

There are many previous researchers who have used clustering technique in generating ideas to improve the students' writing skill. The first study was conducted by Salam in 2011. It was a Classroom Action Research (CAR). The result of the first cycle was 63.06, the second cycle was 67.8 and the last cycle was 72.4. The result of this research showed that clustering technique was effective to motivate the students in writing. It proved that giving motivation to the students in writing is something crucial to less their fear. The second research was conducted by Adriati in 2013. It was an experimental research where there were two classes for sample that is control and experimental group which consisted of 60 students. The data was obtained from the result pretest and posttest score of the

students. The students' pretest score of experimental group was 53.50 and for control group was 53.10. The posttest score of experimental group was 57,57 while the posttest score of control group was 54. It shown that the difference of both group mean in the pretest was statistically not significant (0,593< 2.00) by comparing the post-test score was statistically significant (6.04 >2.00). The result shown that the students who were taught by using clustering was effective to improve the students' ability in writing narrative text. The other, the study had been applied by Aryanti in 2015. It was quasi experimental design. The sample was divided to two classes. There were control and experimental group which consisted of 50 students. The quantitative data gained from the result pretest and posttest students' score. The posttest of experimental group is 95 while mean of control group was 73.6. It shown that clustering technique was improved students' ability in writing.

Moreover, the most important in writing activity is how to generate an idea. Before the students start to write, they should explore their mind freely. Then, they record those thoughts by writing on whatever they can explore. In writing, the students should have idea to write, after the students put their ideas into words. Then, they begin to organize into the paragraph. One of the important parts of writing is pre-writing stage. It needs to develop ideas. Moreover, According to Peary (2017), prewriting is the moment in which the writer faces the preverbal in order to begin writing: it is an expansive mindset containing few preconceptions about style, content or genre. It seems that prewriting is very useful for students to gather idea.

In summary, prewriting is focusing on the idea. The students should write whatever comes in without pausing at all. It does not need to worry about grammar, spelling, organization and etc. The purpose of prewriting is to stimulate the imagination to produce ideas about the topic. It is very useful for the students who are less imagination in gathering ideas.

Moreover, when composing text, the writer should have some purposes in presenting information to others until the text has meaning. They should have the purpose to make sure what they write till the reader understanding the writer's mind. Writing is not about how to explain something or information to others, but the writer also has the opportunity to persuade and entertain the readers through their experience, lesson and feeling.

Futhermore, purpose of writing is expressing oneself to give information to convince or to create good writing. Most of the people enjoy when they write something just for fun which the writer explores his experiences, lesson, feeling, etc. The writer has a certain purpose that can responsibility for the reader. In fact, writing is a means to communicate quite effective and efficient to reach the wider community (Syarif, 2009). There are several purposes of writing, they are to inform, to persuade, to entertain and to explain (Syarif, 2009).

Furthermore, there are a lot of types of writing in the curriculum had been made by the government for second-grade students in senior high school such as procedural, analytical exposition, hortatory, discussion and explanation texts. Thus, the researchers chose the explanation text based on the syllabus. Therefore, based on the statements above the writers wanted to know whether the clustering technique influences the students in generating their ideas in prewriting of explanation text.

Explanation text is to explain a series of issue or phenomenon. It is about a natural and social phenomenon, technical and scientific. Furthermore, the explanation text is explaining the sequence of events. The objective of this text is to explain how and why something in the world happens. It is about actions rather than about things. Explanation plays a valuable role in building, social, storing our knowledge, technical and scientific (Rose, 2015).

In addition, there are three elements that must be considered in writing explanation text (Warmer as cited in Maiyanti, 2015). The first is a general statement. In the general statement, the writer will introduce an events or give general explanation of the event. In the general statement contains a general explanation of the phenomenon to be discussed. The second is the sequence of explanation. In this section, the writer starts to explain a series of events which happened step by step. The explanation sequence should consist of a series of happenings, actions, causes or processes that are the focus on events. The last is closing. The writer takes conclusion the whole of story. It shows that personal comment or summary about how and why something happens. In summary, the explanation text is to explain about the phenomenon in the world or around them by the given reason why and how this happens.

When writing the explanation text, the students should consider some of the features of the text. According to Rose (2015) there are some features of the explanation text. First, the story should explain how that phenomenon occurs. So, the students have to consider the using explanation to give detail of series events. The story takes from the phenomenon then focus on events. It is not on the object or the person but on the events that occur in the person or object. Second, use the simple present. Third, use conjunction time such as before, after, as, when, while, until, since and etc. **Finally, use** clausal connectives such as because of, therefore, so, thus, consequently, as a result, hence and if and etc.

It can be inferred that there are some features in the explanation paragraph. It is very important to know the features of explanation because it needs to give the reason and process that story happens. Then, the story focuses on the events. The tenses use simple present and it also needs conjunction time and clausal connectives.

METHOD

The design used was pre-experimental design on one group pretest-posttest. In addition, the treatment that would be used for the purposes of this study was the use of clustering technique in helping the students generate their ideas. This research was conducted into four meetings excluding pretest and posttest. The objective of pretest was to find out the students' ability in generating ideas in writing an explanatory paragraph. Then, the treatment was conducted in two meetings. The students were taught writing using clustering technique in generating their ideas before they began to write an explanation text. Finally, the students were given a posttest to find out does clustering technique influence the students in generating their ideas into an explanation paragraph.

In this research, the researchers chose a purposive sample. The sample of this study was XI IPS which was consisted of 18 students, but only 16 students

participated fully in this study. In collecting the data, the researchers used the test as the main instrument; pre-test and post-test.

The obtained data from the test was used to know their ability in generating ideas by using clustering technique. It gained from students' scores. The technique of data analysis in this research was used analysis technique. The writers used test to find out students' achievement score in generating ideas by using clustering. After conducting the tests, the writers analyzed the students' writing individually by using a rubric. There were five components presented in the scoring rubric for writing test namely content, grammar, organization, vocabulary, and mechanic. However, the writers only analyzed the content of the students' writing. The score for the content can be seen as in the following.

Table 1. The Analytical Scoring Rubric

Component of writing	Scores	Indicators
Content	4	Relevant to the topic and easy to understand.
		Rather relevant to the topic and easy to understand
	3	Relevant to the topic but is not quite easy to understand.
	2	Quite relevant to the topic but is not quite easy to understand
	1	

(*Rubric from Weigle, 2002*)

From the table above, there were four items in content. Then, the researchers gave the students' score based on the idea generated into writing an explanation text. In assessing, the researchers evaluated the students' generating ideas in their explanation paragraph. To get the mark of each student, the scoring considered the component of contents above. Furthermore, to give more explanation the criteria of numbers in the content is categorized as:

Table 2. Scoring Criterion for Exploring the Ideas

Scoring Criterion			
1	2	3	4
Failing	Poor	Good	Excellent

Note :
    00 - 25   = 1
    25 - 51   = 2
    52 - 77   = 3
    78 - 100 = 4

After scoring the students' test, the researchers calculated the mean and standard deviation for pretest and posttest. Moreover, in determining whether there is a significant difference between the mean

of groups, the researchers used the following formula:

$$t = \frac{md}{\sqrt{\frac{\sum x2d}{n(n-1)}}}$$

(Arikunto, 2014)

Remarks:

Md = Means different pretest and posttest

$\sum X^2$ = Deviation in every subject

$\sum$ = Total of quadrate deviation

n   = Subject of sample

RESULT AND DISCUSSION
Result

This study was conducted by applying pre-experimental research; one group pretest-posttest. The pretest was given before the treatment and posttest was given after the treatment. This research was conducted in one class with 16 students. The data was analyzed by using quantitative method. The quantitative data were taken from the mean of the students' score in writing test.

The following table was the result of the students' pretest and posttest scores in generating ideas.

Table 3. The students' pretest and posttest scores in generating ideas

No	Students' Name	Pretest X_1	Pretest X_2	Posttest X_1	Posttest X_2
1	A	70	4900	85	7225
2	F A	60	3600	85	4900
3	K A	35	1225	70	7225
4	M. F	45	2025	65	4225
5	M. F D	35	1225	70	4900
6	M	35	1225	70	4900
7	M	60	3600	80	6400
8	M.A	45	2025	60	3600
9	R S	45	2025	65	4225
10	R M	60	3600	80	6400
11	R R	50	2500	85	7225
12	R	50	2500	80	6400
13	S	55	3600	80	6400
14	T A	55	3025	70	4900
15	Z	40	1600	55	3025
16	W	60	3025	85	7225
	Total	800	41700	1185	89175

From the table above, the numbers of students who took the test from pretest and posttest was 16 students. Moreover, the writers needed to calculate the mean score and standard deviation. The following table was the score of mean and standard deviation both pretest and posttest.

Table 4. The Score of Mean and Standard Deviation

Test	Mean score	Standard deviation score
Pretest	50	10.30
Posttest	74.06	9.41

Based on the result of pretest, the data showed that the mean score of pretest was 50 and the standard deviation was 10.30. From the analysis, it can be seen that almost of students was very low in generating ideas into their writing.

In addition, the mean score of the writing test in posttest was 74.06 and the standard deviation was 9.41. From the description above, it could be concluded that the mean score of posttest had higher score compared with the pretest score.

After the data was collected in the form of pretest and posttest scores then the data was analyzed to get the value of t-score. Based on the calculation, it is shown that the t-score is 16.10 which t-table was 2.13. Furthermore, t-score is higher than t-table which is a significant level of 5%. Therefore, the null hypothesis is rejected while the alternative hypothesis is accepted.

Discussion

Based on calculation score of students' ability of second grade students in pretest, it was found that the lowest score is 35 and the highest score is 70. While the students' score after treatment was found that the lowest score is 55 and the highest score is 85.

Furthermore, the data were calculated by using some formula such as mean, standard deviation, and t-score. Based on students' score above, it was found that the average (mean) score of the students' ability in pretest is 50. In addition, the average (mean) score of the students' ability in the posttest is 74.06.

In addition, clustering technique has given a significant effect on the students' ability in generating their ideas into writing. It was proven by the results of the test. The score of students in pretest was low while the students' score in post-test is increased. In the pretest, the mean score was 50 with a standard deviation was 10.30 while in posttest, the mean score was 74.06 with standard deviation was 9.41. It indicated that the value of t-score was 16.10 higher than t-table was 2.13. The result of experiment shows that the alternative hypothesis (H_a) it of the research is accepted and in other words, the null hypothesis (H_o) stated that there is no significant is rejected. It means that there is significant different students' score after they were taught by using clustering technique. Therefore, clustering technique is able to give influence on the students' ability in generating the ideas into explanation text.

The next discussion is about the students' response before implementing the treatment in their writing. The researchers found that they looked confused when the researchers asked them to write a text in the pretest. They had difficulty how to start writing. It seems that they did not have ideas to begin their writing. Some of the students looked serious in writing their task. It can be seen in the pretest that the highest score is 70 and the lowest is 35. It means that they did not know how to express their ideas. It also looked from the class atmosphere which was very noisy when the students did their task and some

of them were busy chatted to their friends for the answer.

Moreover, based on the researchers' experience during the application of clustering, it was found that clustering technique made the students more active in the learning process. The students looked enthusiastic and they were more active to use clustering in generating ideas about the given topic. The students were motivated to generate their ideas. The students were able to write based on their ideas that had been clustered. Sometimes, they discussed with their pairs and they also opened their dictionary when they did not know an unfamiliar word. The students were enjoyable in learning and the class atmosphere was not bored. They could easily find the ideas and they felt confident and enjoyable in finishing their task especially to write an explanation text. It means that there is a significant effect of students' achievement after being taught by using clustering technique.

Furthermore, most of them gained a good score in post-test. They were able to write their ideas into the paragraph. Their writing was understandable and the content relevant to the main topic. There are five components in scoring the writing test result; content, grammar, organization, vocabulary, and mechanics. However, in this study, the researchers only took component "content" to analyze in their writing. Based on the result of the students' writing, it was found that the students still had weaknesses in writing such as grammatical error, misspelling, sentence structure error, and undefined words. However, the students' weaknesses as mentioned above was not the main concerned. In this study, the researcher only focusses on the ideas which were

generated by using clustering technique and then they transferred into writing.

From the result above, it can be concluded that clustering technique could increase students' ability. Because of clustering technique is one of appropriate technique in a pre-writing activity. By using clustering technique, the students used many words in every branch to take out their ideas in the brain. The students were able to write without any hesitation. They can generate their ideas when they want to write an explanation text. Moreover, most of the students were influenced by using clustering technique as a treatment, because they were free to express their ideas as many as they can. Therefore clustering is an effective technique to improve the students' ability in writing, because the students have the opportunity to share their thoughts and ideas without any fear in writing practice.

CONCLUSION

Based on the result of the data analysis, it shows that there is a significant effect of using clustering technique in generating the students' ideas at the second grade students. Before implementing the technique, most of the students were still confused and they also did not know what they write in text. Moreover, after implementing the clustering technique, the students were motivated to generate their ideas. They were more active in the learning process. By using clustering, the students'' achievement in generating their ideas get better.

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