

Clustering Technique: An Effective Approach to Improve Students' Writing Skill

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Abstract

Writing has important role in language, learning language is not only by speaking, listening and reading but also, writing. This research is conducted to find the result of the effect of clustering technique towards students' writing skills. English education study program department in Sekolah Tinggi Keguruan dan Ilmu Pendidikan Kusuma Negara, Jakarta 2024. The research object to find out if there is different achievement by using clustering technique in students' wiring skill. Clustering technique is a pre-writing technique that students can learn to build their writing skill. The purpose of writing is a way to indicate for communicating a message to a reader for a purpose. This study is using quantitative method and research design is experimental method. The research population and sample are students in the eighth grade of Junior High School in West Java. There are forty students and consist of twenty students as control class (VIII-A) and twenty students as the experimental class (VIII-B). The research result of the study is to indicate that the conventional technique does not significantly affect a student's score between the pre-test and post-test.

Keywords: Clustering technique, writing skill, experimental research.

1 INTRODUCTION

Writing has important role in language, learning language is not only by speaking, listening and reading but also, writing. Students have to express their idea through the writing skill. Moreover, writing skill is the most difficult skill to learn than other skills even though other also difficult. Raimes (1983) Writing skill is necessary to teach, because writing skill can help the students to express their idea and their feeling through the writing process. Moreover, writing skill is the most difficult skill to learn than other skills even though other also difficult. Raimes said that writing is a skill in which we express the ideas, feelings, and thoughts arranged in words, sentences, and paragraph using eyes, brain and hand.

Writing is a way for communicating a message to a reader for a purpose. The purpose of writing is to express one's self, to provide information for one's reader, to persuade one's reader and to create a literary work. Nanda and Inayah (2016) the teachers revealed that the students had difficulties in developing writing skill, in particular, problems with lack of vocabulary, grammar, text organization and mechanics. Among those four difficulties, grammar and lack of vocabulary were the most common problems they faced in their English writing. Based on the explanation above, it seems that writing is one of skill that students need to be mastered but, there are some problems that make it difficult. Celce and Olnstain (2000) Writing is a way for communicating a message to a reader for a purpose. The purpose of writing is to express one's self, to provide information for one's reader, to persuade one's reader and to create a literary work.

Brown (2004) Another definition of Writing is a way for communicating a message to a reader for a purpose. The purpose of writing is to express one's self, to provide information for one's reader, to persuade one's reader and to create a literary work. Based on the

explanation above, there is a technique that can be use to improve students' writing skill named Clustering Technique.

According to Meyer (2005) Clustering is a good way to turn a broad subject into a limited and more manageable topic for a short essay; it also called mapping, webbing, looping, or diagramming. Clustering technique almost has same technique with brainstorming and mind mapping where the students need to find the idea during the writing process. Another explanation from Longan (2002) clustering technique also known as diagramming or mapping, is a technique that can be used to generate ideas in writing. This technique is helpful to think in a visual way. In clustering technique, there are lines, boxes, arrows and circles to show relationship among the ideas and details.

Clustering is a pre-writing technique that students can learn to build their writing skill. Using clustering technique, they can learn to make a simple sentence. This technique is a good technique that can be used by the teachers and students in teaching and learning process. Another previous researcher, Tagor and Sondang (2018) stated that clustering technique is a technique in pre-writing step after the writer focuses or narrows to the specific topic used to ger ideas of writing in visual way which circles and lines are used to connect ideas. Since clustering technique is done in visual way, it is more helpful for the writer who thinks visually in getting ideas before the actually write the first draft of the writing. Clustering technique allows the writer to make his mind feel from limited thought that probably limits the writer's ideas to put them in their writing.

2 RESEARCH METHODS

In this research, the researcher using quantitative method named Experimental Research. Creswell (2002) stated that quasi-experiment is experimental situations in which the research assigns, but not randomly, participants to groups because the experimenter cannot artificially create groups for the experiment. Furthermore, the research applied the pre-test and post-test. In additions, the population of the research was the 8th grade students of Junior High School of the Nasional Plus Tunas Global, Depok West Java which is consists of two classes. The first class is consisting with 20 students and second class consist with 20 students. So, the total of population are 40 students.

Table 1. Research Design

Class	Pre-test	Treatment	Post-test
Experimental Class	O_1	X	O_2
Controlled Class	O_3	-	O_4

Note:

- O_1 : Pre-test of an Experiment Class.
- O_2 : Post-test of an Experiment Class.
- O_3 : Pre-test of Control Class.
- O_4 : Post-test of Control Class.

Population of research can be defined as totality of the presumable- whole grade, result for counting and measuring, quantitative and qualitative about the certain features from the whole group which is wanted to find out its feature. In this study, the researcher divided the population using two different ways. The first class has been given treatment using conventional method and the second class has been given treatment using experimental method. This research is using pre-test and post-test to analysis the effect of using

clustering technique to improve students' writing skill. To collect the data of this study, the researcher used a writing instrument to assess the student to get the result. The researcher also using Lilliefors and Fisher formula to get the result for homogeneity test and normality test.

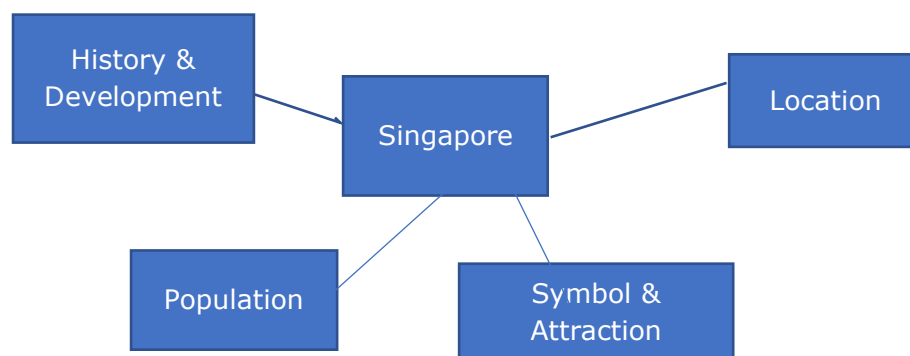
3 RESULT AND DISCUSSION

The research conducted in National Plus Junior High School Tunas Global, this research is to comparing students' result in experimental research. So, the researcher compares the score between the students who have been taught by clustering technique with the students who have been taught with conventional method or without using the clustering technique. The result of the data was obtained from Pre-test and Post-test of the students. The data was assessed by the researcher utilizing writing skill such as content, organization, grammar, vocabulary and mechanics.

3.1 Teaching Procedures

Feradila and Hafizh (2014) said here are some steps in doing clustering technique.

- The teachers ask about the ideas or experience that students had recently.
- The teacher gives explanation to the students about the vocabulary that have already mentioned by them.
- The teacher explain what recount text is and social function of descriptive text
- Let the students to develop the diagram above into a sentence and arrange them into a good paragraph.



Picture 1. Teaching Procedures

3.2 Result of the Study

To collect the data, the students in the whole class were taking the pre-test, which was divided into two classes of forty students, and the researcher got the result of the pre-test with details below. The students who received scores of 57-63 are 3 students, 64-71 are 3 students, 72-79 are 5 students, 80-87 are 4 students, 88-95 are 3 students, according to the above table. Twenty students make up the sample size for the data in total. Data points have a maximum score of 95 and a minimum score of 57. The students have a range score of 38. The mean score of the data is 79.83. The median score is 82 and the mode score is 95. Based on the data above, the result of the standard deviation is 12.01 and the result of variant is 7.178752.

The researchers can see that students' writing skills are still lacking based on the aforementioned data. Only 5 students got scores around 72-79, and most students got scores 64-71, which means the students need to practice their writing skills more. Also,

for the rest of the students who have lower scores, they need to practice their writing skills more. Meanwhile, twenty students, as the sample in the control class, were involved in the pre-test session. From the pre-test, the researcher finally got the result. Based on the data above, the research can see the twenty students who got score 61-67 are 5 students, for score 68-74 are 4 students, 75-81 are 5 students, 82-88 are 4 students and 89-95 are 2 students. The highest score from the data is 90 and the lowest score from the data is 61. The mean for the data is 76.25. The median for the data is 77 and the modus for the data is 70. The result of the variant data is 5,478 and the standard deviation is 9.84. As the research can see from the data above, students' writing skill in the control class are seems still lacking. The students still need to more practice their writing skill. So, the result in this class still low.

Based on the data from the post-test, the students who got scores of 61-67 are five students, 68-74 are two students, 75-81 are five students, 82-88 are three students, and 89-95 are five students. From the total sample of the data, the students who got the maximum score were 5 students. The mean of the data is 81.95. The median is 83, and the modus is 91. The variants are 5.856 and the standard deviation is 8.50. According to the data above, the students in this test seems got better result than the pre-test. Based on the data above the students who got the higher score are five students and it seems the better result from the previous test. Besides that, the mean has better before, it's 76.25 and for this test became 8.95. The result of the research also shows that there is an effect from the pre-test and post-test, which is that the average score before was 64.4, and after being taught using the clustering technique, it became 77.65. Furthermore, the research found the advantages of the writing activities using the clustering technique.

Normality Test of Pre-Test and Post-test.

Table 2 Pre-test

Average	46,25
Standard Deviation (StDev)	10,14
Maximum	0,1874
L_{count}	0,187
L_{table}	0,190
Conclusion	Normal

The dataset appears to be normally distributed by normality text. The mean of the data is 46.25, with a standard deviation of 10.14, meaning the most data point within this range from this mean. The normality test statistic L_{count} is slightly less than the critical value L_{table} , leading to the conclusion that there is no significant deviation from normality. This means the data can be assumed to follow a normal distribution.

Table 3 Post-Test

Average	77,65
Standard Deviation (StDev)	9,60
Maximum	0,12238
L_{count}	0,122
L_{table}	0,190
Conclusion	Normal

Based on the provided statistics, your dataset has a mean of 77.65 and a standard deviation of 9.60, indicating a reasonable spread around the mean. The normality test results $L_{count} < L_{table}$ support the conclusion that the data follows a normal distribution.

Therefore, any analyses that assume normality, such as certain types of parametric tests, would be appropriate for this data.

Homogeneity Test

Using the Fisher Test, determine the homogeneity between the experimental and control classes. It demonstrates that:

Table 3. Result of Homogeneity Test

	Experiment Class	Control Class
Total Score	1289	1553
Average	64,45	76,65
Variant	82,37	92,24

$$F_{count} = 92,24 - 82,37 = 1,11$$

$$Fd_1 = n_1 - 1 = 20 - 1 = 19$$

$$Fd_2 = n_2 - 1 = 20 - 1 = 19$$

Based on the F_{table} mention that $\alpha = 0,05$

$$F_{table} = 2,17$$

Based on the data, $F_{count} < F_{table}$, it means that the data is homogenous.

Validity Test

Arikunto (2013) also said that validity was measure what to be measure, a measurement showed levels of research instrument validity. High and low the result of the research showed how far data were collected didn't diverge from the validity itself. From the explanation above, the research decides to consult with the expert to have better instrument in the research. The expert namely, Wisnu Kala Kusumajati, as a lecture for Writing English Subject.

3.3. Discussion

As Raimes (1983) states that writing is one of skill that is important for students because of some reasons. First, writing makes students strong in grammatical structure, idioms, and vocabulary. Second, writing makes students apply the language they have learned. Third, writing strengthens students to express their ideas in correct words and sentences. Students are therefore encouraged to write until they are able to provide a description.

The result of this research according Rizkia and Wati (2023) mention that, the result of the research includes, the student's pre-test average scores in the experimental group. The students' post-test average score in the experimental group, the students' pre-test scores in control group and the students' post-test average scores in the control group. The significant level for experimental class were 0.200 and 0.200 according to Kolmogorov-Smirnov and 0.085 and 0.490 according to Shapiro-Wilk since it was greater than 0,05, and the students' pre-test and post-test scores in experimental class were normal. Then the significant level Control Class were 0.200 and 0.135 according to Kolmogorov-Smirnov and 0.121 and 0.341 according to Shapiro-Wilk since it was greater than 0,05, indicating that the student's pre-test and post-test scores were normal.

The result of the research also shows that there is an effect from the pre-test and post-test, which is that the average score before was 64,4, and after being taught using the clustering technique, it became 77,65. Furthermore, the research found the advantages of the writing activities using the clustering technique. The writing activity became fun. They get more excited to write the text, and they get more motivation to find the new words and even make them into a sentence. The student becomes more active in writing

the text in English, and they can improve their writing skills even though they think slowly about the next words that they want to write.

Meanwhile in the class control, the students in control class they seem have no motivation to speak. Most of them are quite have no idea while researcher asked them to find the idea. Even though, the researcher gave them encouragement to create the idea to write. They still baffled to find the idea. Although, some of the students in Control Class can build their idea and have encouragement to write it but, the majority still have difficulties to find and write the idea.

As the previous research said that clustering technique built the writer's idea and generate it into a boxes and arrow and shape and much more. Clustering technique also an easy way to generate the idea into paragraph and clustering technique can built the connection between the student's experience and new information.

4 CONCLUSION

Based on the study, the researcher concluded, the clustering technique was able to improve students' writing abilities. It appears that students will have no trouble following the lesson and coming up with new ideas for well-written paragraphs, based on the process of learning. The result had proven through the research, there is significant effect of clustering technique toward students' writing skill. The score provided that students got, the researcher can see that the before and after analysis for the experimental class and the control class were different. In the experimental class, the average score that students got in the pre-test was 64,4 and after getting analysis by using the clustering technique, the average score in the experimental class increased become 77.65. Besides that, in the control class seems the students got different score. The pre-test score for control class before analysis is 76.25 and after getting analysis, the post-test of control class become 81.95. It means that by using clustering technique, the result of experimental class is still better from the control class. The clustering technique seems to have a good effect on students' writing skills. Through the process of analysis, the researcher not only focuses on their writing skills but also on the idea that students have created. They can create the idea; they wanted to share and make the idea into a good paragraph. During the learning process, the students seem to enjoy creating their ideas before they make their paragraphs. They not only pay attention by creating the idea but also make it very easy to make a good paragraph.

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