Research Article

CLUSTERING TECHNIQUE AND VOCABULARY MASTERY IN STUDENTS' RECOUNT TEXTS

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Abstract: The purpose of this research at finding out empirical evidence concerning whether clustering technique and vocabulary mastery are effective or not for the student to write recount text. The research methodology used is an experiment. The sampling technique uses random sampling at Private Vocational High Schools in East Jakarta. Data collection is obtained by testing their vocabulary mastery and writing skills. Data analysis to test hypothesis is two ways ANOVA. The research results conclude 1) There is a significant effect of the clustering technique on students' writing skills with the value (Sig) being $0.000 < 0.05$ and $F_0 = 36.740$. 2) A significant effect of vocabulary mastery on students' writing skills with the value (Sig) is $0.000 < 0.05$ and $F_0 = 72.161$. 3) There is a significant interactive effect of clustering technique and vocabulary mastery on students' writing skills. With the value (sig) is $0.018 < 0.05$ and $F_0 = 5.921$. Then all of H_0 is rejected, and H_1 is accepted. So, there is the effect of clustering technique and vocabulary mastery on students' writing skills in recount text.

Keywords: Clustering Technique, Vocabulary Mastery, Writing Skill, Recount Text

Introduction

Language is an essential tool to communicate. To communicate means understanding, expressing many ideas, and developing culture between speakers and listeners or writers and readers. Language is more than just a communication tool; it is a primary method by which we do things together by sharing common ground meaning. People need to communicate in doing daily activities and interact with other people in their lives—one of the popular languages used in English.

English is most widely used in world society. Nevertheless, English, an international language, is used to communicate all over the world. As one of the developing countries, Indonesia needs to communicate or interact with English to upscale the social relationships and commercial and educational activities to go international. In Indonesia, English has become the first foreign language taught from junior high school up to university because realizing English is an essential communication tool. A learner is expected to master the four necessary language skills (listening, speaking, reading, and writing). The language skills are divided into two, which are receptive skills and productive skills. The receptive skills are listening and reading, whereas the productive skills are speaking and writing.

Writing is a process of transforming thoughts, ideas, and feelings into written form. It means that writing is one of the important skills that students must learn. Dealing with the purpose of writing, in general writing is to communicate and give information to others indirectly, to explain about who or what something is and how it happened or why something happened, to persuade the reader to take action based on what the author has written, to express the thought, idea, and feeling of the author on a specific topic. For students writing to have many purposes, they explore students' vocabulary when they write a text, train students' grammar in writing correctly, and express their idea on a specific topic.

Writing is indirect communication that conveys meaningful and expressive information from the author to the written language readers. Also, writing is an excellent way to develop students' English ability.

By writing, students can learn any writing aspects like capitalization, punctuation, spelling, vocabulary, and grammar. The writing can be said successful if the students' writing contains some aspects of writing.

Writing is perhaps the most demanding skill of English. It has to be deliberately cultivated. Unlike speaking and listening, it is not something natural to the human. It is skills developed in a civilized society to pass knowledge or message beyond the constraints of here and now. Writing is very complicated. It is neither an easy as spontaneous activity. Writing needs some mental effort that must be combined and arranged. Writing needs hard-working when students for writing. They not only have to keep opinions or ideas, which are relevant to their goal at the learning. Writing as a part of language learning is an activity that requires enough time to think about the specific topic, to analyze, select, and organize an experience according to a specific purpose. In writing, the writer must keep in mind his or her purpose, think about the facts, and need suitable language to structure the ideas informing a coherent discourse. Writing motivates someone to develop his or her mind. The ideas of someone cannot understand clearly before it is written.

Some English text types have to be mastered by the vocational high school students, such as narrative, recount, procedure, and descriptive text. Each text type has different purposes, the organizational structure of the text, and language features used in a text. Recount text is a text that retells past events and experiences in chronological order. It purposes to provide the reader with a description of what occurred and when it occurred. The generic structure of recount text consists of orientation, event, and re-orientation. In orientation, it provides background information of the event. In the event, it gives more information about what happened in sequence. Then, it will describe the story's conclusion and what the writer felt when it happened in re-orientation.

In learning writing, the students face many writing recount text problems when they are ordered to write a text, such as vocabulary or word choice used, grammar, content, and organization. First, the student's poor at vocabulary for constructing a good paragraph. So that the students cannot convey their ideas and opinions smoothly, the second reason is grammar. A good text describes a sentence structure correctly, and the paragraph has a good order of the words in sentence sequence. The third is content. It means that the students cannot produce an effective text because they cannot construct the main idea and supporting detail into a paragraph. Fourth is organizing. In organizing, the students cannot organize paragraphs into a good text. The serious problem of students faces when they write vocabulary. As we know that vocabulary is one of the critical aspects when writing text or passage. They frequently asked their teacher the English word they wanted to write as they were making the composition; in this case teacher only the facilitator in writing text. They did not want to bring a dictionary to help them find the appropriate word.

These problems come from the teaching technique in learning writing and also mastery of vocabulary. Sometimes, the teacher uses a tiresome teaching technique and forgets to teach them about vocabulary mastery. The teacher gives some explanations, exercises, and vocabulary from the textbook. It makes students less comprehend the material, vocabulary, and students cannot produce their English sentences. They always asked their teacher about the English word because teachers forget to introduce the familiar words or words that are mostly used in English besides in the textbook. Some students can consider English as a boring class because the teacher uses the teaching technique. The impact of students' poor vocabulary is that they cannot produce productive skills (speaking and writing) well. To solve these problems, it needs techniques in learning writing to be more attractive, practical, and innovative for students. Also, students need the technique to think efficiently and get an aim for what they will write. Many techniques can be applied in learning writing. One of the techniques in writing is the clustering technique.

Clustering is a technique to turn a broad subject into a limited and more manageable topic for a short essay or text. The clustering technique is also known as diagraming or mapping, is a technique that can be used to generate ideas in writing. This technique is helpful to think visually. There are lines, boxes, arrows, and circles in the clustering technique to show the relationship among the ideas and details. In the clustering technique, the students write a topic in the center of a piece of paper, then write ideas suggested by the topic around it., connecting these to the topic with lines, follow the same procedures with their subtopics. The advantages of this technique are that students can find out the related words, ideas, and concepts as much as possible to the topic. Students can stimulate their ideas and organize their idea before they develop into paragraphs.

The technique to solve this problem and the students must have much vocabulary to power up writing. Vocabulary mastery is an important thing to support one's productive (speaking and writing) and receptive (reading and listening) skills. Vocabulary is the core of competent proficiency and provides much of the basis for how well learners speak, listen, read, and write. Vocabulary is a vehicle for thought, self-expression, interpretation, and communication. Without a proportional amount of vocabulary, anyone will get trouble speaking, reading, listening, and writing. Without a shred of doubt, vocabulary acquisition would help people gain, understand, and enhance the process of knowledge transferred for a better life. Vocabulary is basic to communicate with others. When someone wants to follow in conversation, they must understand the words used by the speakers. In writing, if the students are mastery in vocabulary, they can convey their ideas and opinions smoothly. It plays such an essential role that it may influence students' ability to write text. To write, students must have an adequate number of words and know how to use them correctly. Vocabulary masteries have some effects and relationships with writing ability. The students who have larger size or mastery in vocabulary may learn and practice writing English well. It can be seen that the success of writing text. To know the effect of clustering technique and vocabulary on students' writing skill in recount text.

Method

This research used the quantitative method. Quantitative research explains how one variable affects another. In this case, the researcher needs to explain a relation between variables. It indicates that the researcher is interested in determining whether two variables might affect or influence another variable. This type of research is a method in which the form of data is numerical. This research used comparative statistics.

The design of this research is experimental. This design looks at and studies the effects after the subject is given independent variable treatment and finds the relationship between clustering technique and vocabulary mastery on students' writing in recount text. The first characteristic of this study is to compare the two groups that have an equivalent subject. The first group is the experimental group that its English language learning process is using clustering technique. In contrast, the second group is the English learning process's control group using the conventional method. The second characteristic of this study is students will be given a vocabulary test.

This research has two kinds of validity. Internal validity is related to the effect of treatment on students' writing skills in recount text, based on the procedure's accuracy, collected data, and conclusion. External validity is related to whether the research result could be generalized to another subject that does not have a similar condition and characteristic.

Test hypothesis in this research using analysis two ways ANOVA multivariate normal distribution and the sample is quite enough. Relationship between the independent variable (clustering technique and vocabulary mastery) and dependent variable (students' writing skill in recount text).

Results and Discussion

The data shows that the experimental class (A1) has a mean score of 75.63; it is bigger than the control class (A2) has a mean score of 66.50. The description shows that the experimental class is successful. If it is seen from vocabulary master, it shows that the students with high vocabulary mastery have a higher score than the students with low vocabulary mastery. The group of students with high vocabulary mastery has a mean score of 77.47. On the contrary, the group of students with low vocabulary mastery has a mean score of 64.47, which means the research results show the expected result.

Table 1. Descriptive Statistics

Descriptive Statistics
Dependent Variable: Students' Writing Skill

Clustering Technique	Vocabulary Mastery	Mean	Std. Deviation	N
	High	80.20	4.475	15
Clustering Technique	Low	71.07	6.606	15
	Total	75.63	7.233	30
	High	74.73	5.800	15
Conventional Technique	Low	58.27	6.239	15
	Total	66.50	10.255	30
	High	77.47	5.800	30
Total	Low	64.67	9.068	30
	Total	71.07	9.930	60

After conducting the normality and homogeneity and the research results shows that the population's sample is distributed normally and the homogeneity of sample variance, then it can be continued to hypothesis test ANOVA. The analysis of the students' writing skill data done by using two-way ANOVA, which the calculation process helped by SPSS version 22 for windows. The following is the result of the computation:

Table 2. Hypothesis testing Using ANOVA

Tests of Between-Subjects Effects
Dependent Variable: Students' Writing Skill

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3910.533[a]	3	1303.511	38.274	.000
Intercept	303028.267	1	303028.267	8897.642	.000
A	1251.267	1	1251.267	36.740	.000
B	2457.600	1	2457.600	72.161	.000
A * B	201.667	1	201.667	5.921	.018
Error	1907.200	56	34.057		
Total	308846.000	60			
Corrected Total	5817.733	59			

a. R Squared = ,672 (Adjusted R Squared = ,655)

The computation of data analysis by using the ANOVA test can be seen in Table 2. above:
1. ***The first hypothesis: There is a significant effect of clustering technique on students' writing skills.***
    Testing this hypothesis is by seeing the coefficient significance. If Sig. Value> 0.05, then H_0 is accepted, and H_1 is rejected. On the other hand, if Sig. Value < 0.05, then H_1 is accepted, and H_0 is rejected.
    The computation performed by using SPSS version 22 is found that sig =0.000 < 0.05 and $F_0 =$ 36.740. It can be concluded that there is a significant effect of the clustering technique on students' writing skills at private vocational high schools in East Jakarta. In other words, the students' writing skill is influenced by the use of clustering technique. There is a difference between the students' writing skills treated with clustering technique and conventional technique.
2. ***The second hypothesis: There is a significant effect of clustering technique on students' writing skills.***
    Testing this hypothesis is by seeing the coefficient significance. If Sig. Value> 0.05, then H_0 is accepted, and H_1 is rejected. On the other hand, if Sig. Value < 0.05, then H_1 is accepted, and H_0 is rejected.
    The computation performed by using SPSS version 22 is found that sig =0.000 < 0.05 and $F_0 =$ 72.161. It can be concluded that there is a significant effect of vocabulary mastery on students' writing skills at a private vocational high school in East Jakarta. In other words, the students' writing skill is influenced by the use of vocabulary mastery.
3. ***The third hypothesis: There is a significant effect of clustering technique and vocabulary mastery on students' writing skills.***

Testing this hypothesis is by seeing the coefficient significance. If Sig. Value> 0.05, then H_0 is accepted, and H_1 is rejected. On the other hand, if Sig. Value < 0.05, then H_1 is accepted, and H_0 is rejected. The computation performed by using SPSS version 22 is found that sig =0.018 < 0.05 and F_0 = 5.921. it can be concluded that there are no significant interactive effects of clustering technique and vocabulary mastery towards students' writing skill at private vocational high school in East Jakarta. The students' writing skill is influenced by the use of clustering technique and vocabulary mastery. So, there is a needed Tukey test.

Table 3. Tukey Test

Multiple Comparisons

Dependent Variable: Students' Writing Skill
Tukey HSD

(I) Post Hoc	(J) Post Hoc	Mean Difference (I-J)	Std. Error	ig.	95% Confidence Interval	
					Lower Bound	Upper Bound
A1B1	A1B2	9.13*	2.131	000	3.49	14.78
	A2B1	5.47	2.131	061	-.18	11.11
	A2B2	21.93*	2.131	000	16.29	27.58
A1B2	A1B1	-9.13*	2.131	000	-14.78	-3.49
	A2B1	-3.67	2.131	323	-9.31	1.98
	A2B2	12.80*	2.131	000	7.16	18.44
A2B1	A1B1	-5.47	2.131	061	-11.11	.18
	A1B2	3.67	2.131	323	-1.98	9.31
	A2B2	16.47*	2.131	000	10.82	22.11
A2B2	A1B1	-21.93*	2.131	000	-27.58	-16.29
	A1B2	-12.80*	2.131	000	-18.44	-7.16
	A2B1	-16.47*	2.131	000	-22.11	-10.82

Based on the Tukey test above, that can be concluded as follows:
a. In the group 1 and 2: it can be seen ***Mean Difference*** is (9.13), it means the difference the group 1 and 2 average is (9.13). This value is relatively small, and it can be proven with significant value 0.000 < 0.05; it means group 1 and 2 is significantly different.
b. In the group 1 and 3: it can be seen ***Mean Difference*** is (5.47), it means the difference the group 1 and 3 average is (5.47). This value is relatively small, and it can be proven with significant value 0.061 > 0.005; it means group 1 and 3 is not significantly different.
c. In the group 2 and 4: it can be seen ***Mean Difference*** is (12.80), it means the difference the group 2 and 4 average is (12.80). This value is relatively small, and it can be proven with significant value 0.000 < 0.05 it means group 2 and 4 is significantly different.
d. In the group 3 and 4: it can be seen ***Mean Difference*** is (16.47), it means the difference the group 3 and 4 average is (16.47). This value is relatively small, and it can be proven with significant value 0.000 < 0.05 it means group 3 and 4 is significantly different.

Conclusions

Based on the research, there are interactive effect clustering techniques and vocabulary mastery towards students' writing skill in recount text at Private Vocational High School in East Jakarta. The research results can prove that students who are taught by clustering technique and have high vocabulary mastery have higher scores than students who are taught by conventional technique and have low vocabulary mastery. This research shows that students' writing skill results using the clustering technique have a valuable significant effect. It is required trained English teachers to optimize the capability to provide a technique in writing text by clustering technique. The students also have to build their knowledge and skill in English. Teachers should help students in writing and make writing is more manageable, not tricky. The result of students' writing skills that are taught by clustering is higher than those who are taught by conventional technique.

It is suggested to the students to enrich the vocabulary mastery. It has many functions because vocabulary mastery can help them express themselves, and vocabulary mastery is the foundation of four English language skills. Students should study harder to have a rich vocabulary, and also, they have to try to practice writing English regularly. Because Indonesian students' main problem is not practicing regularly, they only study it in the classroom. The result of vocabulary mastery is better if the students have high vocabulary mastery than students with low vocabulary mastery. If students have a rich vocabulary, they can write English well; on the other hand, if students have a poor vocabulary, they cannot write English well. It is suggested that other writers use any technique, method, and approaches in research to develop the four English language skills.

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