THE EFFECT OF CLUSTERING TECHNIQUE ON WRITING EXPOSITORY ESSAYS OF EFL STUDENTS

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Abstract: The study is aimed at investigating the effectiveness of using clustering technique in writing expository essays. The aim of the study is to prove whether there is a significant difference between writing using clustering technique and writing without using it on the students' writing achievement or not. The study belonged to experimental study by applying counterbalance procedure to collect the data. The study was conducted at the fourth semester English department students of Palangka Raya State Islamic College of 2012/ 2013 academic year. The number of the sample was 13 students. This study was restricted to two focuses: using clustering technique and without using clustering technique to write composition. Using clustering technique to write essay was one of the pre writing strategies in writing process. To answer the research problem, the t test for correlated samples was applied. The research findings showed that,it was found that the t value was 10.554.It was also found that the df (Degree of freedom) of the distribution observed was 13-1= 12. Based on the Table of t value, if df was 12, the 5% of significant level of t value was at 1.782 and the 1% of significant level of t value was at 2.179. It meant that using clustering gave facilitative effect on the students' essay writing performance.

Keywords: *Reading Comprehension, Text, Scaffolding.*

Clustering is one of the four prewriting strategies such as brainstorming, free writing and WH-questions (Smalley, at,al. 2001: 4). Clustering can also help to plan out various areas of discussion for writing assignment. Dealing with clustering, Vicki Maede (2013) states that "Clustering is a powerful tool because it taps into the right brain, which drives creativity. Our right brain is where fresh ideas and original insights are generated. The left brain, in contrast, is more logical and orderly. Both are essential to good writing, but if your left brain is too dominant when you start a piece, it inhibits the free flow of thought. Clustering muffles the left brain for a time so the right brain can play freely…".

The inventor of clustering is Gabrielle Lusser Rico (2000:3). Clustering makes free the writer from following strictly linier sequence, thus it may allow the writer to think more creatively and make new association. Like brainstorming, clustering employs free-association of ideas, creating a "structure" quite unlike the traditional outline method, but equally effective. It represents one way that visual and tactile-kinesthetic learners may adapt their learning needs to fit the given situation.

In clustering technique, the learner begins with a center or nucleus. The general idea of the lecture, book, or movie, the topic for creative writing, or the central issue in a problem-solving exercise, is placed in the center

of the page. Main ideas are connected to the central topic by drawing lines from the center. Supporting ideas become "branches" off main ideas. Working outward from the center in all directions, the learner produces a growing, organized structure composed of key words, phrases, and images.

Based on the explanation above, it can be concluded that clustering is a technique where we map out our thinking using circles and lines to display "branches" of our ideas. It is visual road maps to sort ideas. These are popular invention tools that allow the writer to recognize the levels of thinking and figure out the kinds of questions to be answered. Clustering technique is more appropriate for visual learner.

Concerning with clustering studies, there have been a number of studies. Fairiyani, (2012) proved that clustering technique could improve the students' writing ability. It is supported by Ghufron (2012) who investigated the Effectiveness of Dyadic Essay Technique in Teaching Writing Viewed from Students' Creativity. He found that : (1) Dyadic essay Technique is more effective than Clustering Technique in teaching writing; (2) students with high creativity have better writing ability than those having low creativity; and (3) there is an interaction between teaching techniques and creativity in teaching writing.

Erlik Widiyani Styati (2010) found that the students who are taught clustering technique have better writing ability than those who are taught using direct instruction. A study conducted by Suheni (2011) found that the clustering technique was effective helping students to generate ideas in writing analytical texts. Ronald T. Kellogg (1990: 327-342) with his study entitled: Effectiveness of Prewriting Strategies as a Function of Task Demands found that clustering increased the number of ideas generated during prewriting, but had no impact on document quality and actually cost writers in terms of composing fluency based on total time spent on the task. Sixth, a study

conducted by Erlik Widiyani Styati (2010). The research findings show that the students who are taught clustering technique have better writing ability than those who are taught using direct instruction. Finally, the research findings imply that the use of clustering technique can affect the student's writing competence optimally.

In addition, there are other reasons the researcher conducts the study on clustering technique. First, clustering technique is the most important part in the pre writing strategies. Second, clustering technique is useful to create patterns, build connections, and establish associations between the student's own experience and new information, between known facts and new concepts, between parts of a concept or problem and its whole. Third, clustering technique is useful for understanding the relationships among the parts of a broad topic and for developing sub-topics.

This study measures the effectiveness of using clustering technique in writing expository essays. The aim of the study is to prove whether there is a significant difference between writing using clustering technique and writing without using it on the students' writing achievement or not in writing expository essays at the fourth Semester English Department Students of Palangka Raya State Islamic College."The hypothesis of the study is formulated: "There is a significant difference between writing using clustering technique and writing without using it on the students' writing achievement in writing expository essays at the fourth Semester English Department Students of Palangka Raya State Islamic College (alternative hypothesis)." Meanwhile, the null hypothesis is," There is no significant difference between writing using clustering technique and writing without using it on the students' writing achievement in writing expository essays at the fourth Semester English Department Students of Palangka Raya State Islamic College."In the present study, there are three variables: two independent

variables and one dependent variable. The independent variables are: writing essay using clustering technique and writing essay without using clustering technique. Meanwhile, the dependent variable is scores of the students' writing test.

This study is aimed at investigating the effects of using clustering technique and without using it in writing expository essays. This study has practical and theoretical significance. Practically, the result of this study is expected to give significant contribution to the English writing teachers. Theoretically, it is expected that the results of the study can give contribution to support the theory of cognitive processing on teaching English as a foreign language, especially for the writing teachers. Therefore, it is expected that writing is not only be seen as a product, but also more as a process.
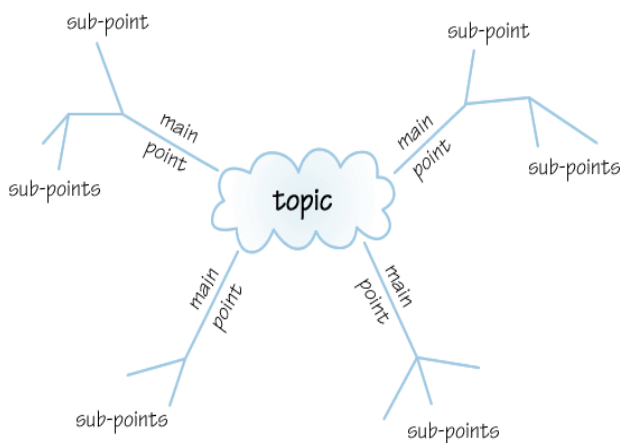
Clustering

Clustering or word mapping is a prewriting technique of making a visual map of ideas. In clustering, the writers use a key word placed in the center of a page, then, jot down all the free associations. Here, the writers' associations are clustered together and stem off the central word (Gebard, 2000: 226). Clustering frees writers from following a strictly linear sequence. It may allow writers to think more creatively and make new associations. To use this technique, writers can begin with a topic circled in the middle of a sheet of paper, and, then, draw a line out from the circle and write an idea associated with the topic.

Clustering is also called Cluster mapping or idea webbing. It is a great way to show relationships between ideas. Cluster mapping is also part idea generation and part organization, so students will know exactly how to group their ideas once they are ready to write. To begin, the writers write the topic in the center of the page and put a circle around it. Then the writers can move in one of two directions.

Clustering is an especially effective tool for the prewriting stage of the writing process. It was introduced by Gabriele Rico (2000) in his book Writing the Natural Way. Clustering is a generative, open-ended, non-linear, visual structuring of ideas, events, and feelings. It is a way of mapping an interior landscape as it begins to emerge. It is based on a beginning knowledge of how the two sides of our brain process what we know. They process information in radically different ways. This difference is most easily explained by a look at two words often thought to be a synonymous: order and structure. Order, on the one hand, comes from the Latin ordo, ordini. It means "in a straight row," "in a regular series." Order implies linear, rule-governed activity. Order is imposed from without. Structure, on the other hand, comes from the Latin struere. It means "to heap together." Structure emerges from within. From the explanation above, it can be said that clustering or mapping is a way of drawing our ideas out like a spider web. The main idea goes in the middle, and we expand our thoughts out from there.

There are some benefits of clustering. First, clustering help the writer find and generate ideas and, having found them, to structure and restructure them long before any ordering actually takes place. Second, clustering is a technique for collecting thoughts around some stimulus, for finding a focus, and for allowing a sense of the whole configuration to emerge even though all the details are not yet apparent. Third, clustering is a technique for engaging and utilizing the raw materials of one's experience and giving them a tentative shape. In short, it is a discovery process. Fourth, clustering is a simple process taking thirty seconds to two minutes, just long enough to let ideas spill out onto a page until an idea presents itself that the writer can develop into a whole. Fifth, clustering employs free-association of ideas, creating a "structure" quite unlike the traditional outline method, but equally effective. They represent

one way that visual and tactile-kinesthetic learners may adapt their learning needs to fit the given situation. Sixth, clustering is useful not only for organizing information, but for generating ideas. It is used to create patterns, build connections, and establish associations between the student's own experience and new information, between known facts and new concepts, between parts of a concept or problem and its whole. This is an example of clustering technique.

In the present study, the researcher tries to apply clustering technique in prewriting stage during the writing process, because it is what the researcher investigates.. Here, the students are assigned to practice clustering technique in prewriting stage during the writing process, when they are starting to write. Hopefully, this experience can lead students to have an assumption that writing is a complex skill, which should be gained from a set of process.

METHOD

The study belonged to an experimental study using counterbalance procedure. It is an order in which treatment condition experienced are varied across subjects so that each treatment is experienced in each ordinal position by different sets of subjects. In this sense, the same student takes two different measures in varied order. The data are taken from the same student on different tasks at a period of time.

The experimental study with counterbalance procedure divides the subjects into two half group. The aim is to measure the ability of the subjects in the two-half groups to write an essay using two different prewriting strategies in the process writing, that is, using clustering technique and without using clustering teachnique. In the essay writing using a clustering, the students were assigned to make clustering before starting to write an essay. Conversely, in the essay writing without using clustering, the students were assigned to write an essay without making clustering before writing a composition.

In the study, there were three variables: two independent variables and one dependent variable. The independent variables were: writing essay using clustering technique and without using clustering technique. Meanwhile, the dependent variable was scores of the students' writing test.

The study was conducted at Palangka Raya State Islamic College. The population of the study was the texts produced by all the fourth semester English department students of Palangka Raya State Islamic College of 2012/ 2013 academic year, consisting of Class A, B, C, and D students. The number of the students was 60 students consisting of Class A: 13 students, Class B: 15 students, Class C: 14 students and Class D: 18 students. The population was the texts of the students who were taking Writing III course. To take the sample, the clustering technique sampling was selected. In this case, the researcher took the students of class A as the sample of the study. The number of the subjects was 26 writing products, produced by the 13 students of Class A.

To collect the data, the researcher employs counterbalanced procedure. The procedure to collect the data was described as the following steps. After given short explanation on the purpose of the study and the way to carry out, the students were divided into two

halves of treatment groups. Each treatment group consists of 13 students. Two treatment groups of the subjects were exposed to two treatments: clustering technique and non-clustering technique. The group division was also intended to break the subjects into small number that enabled the class easy to manage and control the writing activities and control the effect of the experimentation treatments. The data collection was in two sessions. In the first session, the subjects were assigned to write an expository essay without using clustering technique. They were assigned to write using freewriting technique. It was done in April 10, 2013. Meanwhile, in the second session, the subjects were assigned to write an expository essay using clustering technique in the prewriting strategy. It was done in April 17, 2013.

In this case, the subjects of both groups were given opportunity about 90 minutes to do the test covering the three stages of writing: writing draft, revising and editing. The essay to write is about 400 to 500 words of about three to five paragraphs. To make clustering technique, the students were given extra time about 20 minutes. The subjects were also informed the areas of scoring in order that they focused on writing. The students' writing products are scored using the analytic scoring method covering four components: content, organization, sentence structure, and grammar, usage and mechanics. Before starting to write, the clustering technique group made clustering of the topic selected. On the contrary, the non- clustering technique group started to write an essay using freewriting technique, without making clustering.

The data of the study were the students' writing scores. In this case, the data were in form of quantitative data. The data were analyzed by means of inferential statistics. This statistical analysis was suitable to use to answer the research problem. In this case, the researcher applied T- test for correlated samples to examine the difference score between the students who used clustering technique and those who did not use clustering technique in writing expository essay.

To answer the research problem whether there was a significant difference between writing using clustering technique and without using clustering technique on the students' writing achievement or not, the researcher analyzed the data using t test for correlated samples. It was used to find out the means of the two levels of writing strategy whether it was significant or not. In this sense, to analyze the data of the experiment, the researcher used SPSS 16 programs with t test for correlated samples.

FINDINGS

This section dealt with findings of the students' writing product without using clustering technique. The test was done on Wednesday, April 10, 2013 at 09:00- 10.40 in B2.1 room. The number of the participants was 13. They were assigned to write expository essay without using clustering technique in prewriting strategy.Based on the output, it was found that the average score for rater 1 was 3.70 and the average score for rater 2 was 3.79. Therefore, the mean score of the non clustering group was 3.75. The minimum score was 2.86 and the maximum score was 4.75. It could be concluded that the mean score of the nonclustering group categorized as sufficient level.

This section dealt with findings of the students' writing product using clustering technique. The test was done on Wednesday, April 17, 2013 at 09:00- 10.40 in B2.1 room. The number of the participants was 13. Based on the output, it was found that the average score for rater 1 was 5.23 and the average score for rater 2 was 5.31. Therefore, the mean score of the clustering group was 5.27. The minimum score was 3.63 and the maximum score was 5.50. It could be concluded that the mean score of the clustering group categorized as skillful level.

To answer the research problem, whether there was a significant difference between writing using clustering technique and writing without using it on the students' writing achievement or not, the t test for correlated samples was applied. It was applied to see the significant difference between the students who write an essay using clustering technique and those who write without using clustering technique on the students' writing achievement. For this reasons, the researcher did the following steps. First, both data were inserted in the SPSS program on t test for correlated samples. Then, the significant level of t empiric was determined. The result of calculation or t value could be seen from the output. Next, to determine the t empiric, the t value was compared with the critical value or t table at 1% and 5% significant level. If the t value was smaller than t table, the null hypothesis (ho) could not be rejected and the alternative hypothesis (ha) was rejected. On the contrary, if the t value was higher than t table, the null hypothesis (ho) was rejected and the alternative hypothesis (ha) was accepted. To answer the research problem, the data were firstly tabulated as seen in Table 1. 1.

Table 1.1 The Comparison of Students' Writing Achievement between Those whoWrote Without Using Clustering and Using Clustering

No	Initial names	Clustering	Non-C;ustering	Different Score
1	AGS	3.63	2.86	0.77
2	AHR	4.13	3.25	0.88
3	ALR	5.25	3.88	1.37
4	AZH	5.25	4.13	1.12
5	DK	4.88	3.68	1.20
6	EM	5.50	4.13	1.37
7	EW	5.25	4.75	0.50
8	EPD	5.50	4.63	0.97
9	FA	4.00	3.13	0.87
10	HR	5.50	3.63	0.87
11	IMU	4.00	2.86	1.14
12	IS	5.13	3.38	0.75
13	MJ	5.38	4.38	1.00
	Average Score	5.27	3.75	0.52

Then, the researcher tested the Statistical Hypothesis using t test for correlated samples, as described in Table 1.2.

Table 1.2Testing the Statistical Hypothesis using t test for correlated samples

Paired Samples Test									
		Paired Differences							
				Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Mean	Std. Deviation		Lower	Upper			
Pair 1	VAR00001 VAR00002	1.13154	.38658	.10722	.89793	1.36515	10.554	12	.000

After calculating the t value of the compare means of both groups using SPSS 16 program, it was found that the t value was 10.554. Based on the outcomes, it was also found that the df (Degree of freedom) of the distribution observed was 13-1= 12. Based on the Table of t value, if df was 12, the 5% of significant level of t value was at 1.782 and the 1% of significant level of t value was at 2.179 (Ary, 2010: 629). It could be seen that the empiric t value at 10.554 was greater than the t value theoretic. Therefore, t table (5%=1.782) < t value (10.554) > t table ((1%= 2.179). It meant that the t value empiric at 10.554 was greater than t theoretic at the 5% and 1% of significant level.

Based on the results, it could be concluded that at the 5% and 1% of significant level, there was a very significant difference on students' writing score between the students who wrote an essay using clustering(Mean= 5.27) and those who wrote without using clustering technique (Mean= 3.75). This meant that Ha stating that there was a significant difference between writing using clustering technique and writing without using it on the students' writing achievement was accepted. On the contrary, Ho stating that there was no significant difference between writing using clustering technique and writing without using it on the students' writing achievement was rejected. It meant that using clustering technique gave facilitative effect on the students' essay writing performance. To sum up, the means differed significantly at 1% and 5% significant level.

DISCUSSION

Dealing with the research findings stating that there was a very significant difference between writing using clustering and writing without using it on the students' writing achievement, there were possibly due to a number of arguments.

First, the subjects of the study were college students who were taking Writing III course.

In this course, the subjects studied clustering technique and writing expository essay. They did lots of exercise in making clustering before starting to write. This indicated a tendency that the subjects got more experience in clustering technique and was familiar with making clustering to write an expository essay. This possibly made that writing using clustering technique was better than writing without using it.

Second, clustering employed free-association of ideas, creating a "structure" quite unlike the traditional outline method, but equally effective. It represented one way that visual and tactile-kinesthetic learners may adapt their learning needs to fit the given situation.

Third, clustering was useful not only for organizing information, but also for generating ideas. It was used to create patterns, build connections, and establish associations between the student's own experience and new information, between known facts and new concepts, between parts of a concept or problem and its whole. Furthermore, by utilizing skills inherent to both sides of the brain, they became very valuable techniques for the more sequential learner to employ.

Finally, it was compatible with "schema" theories of cognitive processing advanced by Costa, Ausubel, Neisser and others. Based on the evidence above, it could be concluded that the prewriting quality of students' essay writing using clustering was better than those without using clustering.

CONCLUSION

After calculating the t value of the compare means of both groups using SPSS 16 program, it was found that the t value was 10.554. Based on the outcomes, it was also found that the df (Degree of freedom) of the distribution observed was 13-1= 12. Based on the Table of t value, if df was 12, the 5% of significant level of t value was at 1.782 and the 1% of significant level of t value was at 2.179. It could be seen that the empiric t value at 10.554 was

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