CLUSTERING TECHNIQUE ON STUDENTS' VOCABULARY MASTERY

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ABSTRACT

Clustering is making a visual map the students to think creativity. This research aims to determine whetherclustering technique affect students' vocabulary mastery or not.
The design used in this research was QuasiExperimental. The population in this research were all class VII Mts Al-WashliyahTanjungHaloban 2018/2019 academic year consisting of 84 people. The research sample was taken using a saturated sample technique with the experimental method. Test was used as the instrument in this research. The test were pre-test and post-test.
The mean of student learning outcomes using clustering technique is 78.36 with a standard deviation of 7.18 while those that do not use is 59.52 with a standard deviation of 14.86. from the difference of mean values from real level a is 0.05 indicates that students who get treatment clustering technique is better than those who don't get it. so that it can be seen that the use of clustering technique affect students' vocabulary mastery at Mts Al-WashliyahTanjungHaloban Academic Year 2018/2019.

Keyword :*Vocabulary and Clustering Technique*

INTRODUCTION

Learning vocabulary is important for learners since vocabulary knowledge, as one of the basic components plays an important role among the three system in English language. It gives contribution to learners to perform their skills better. It is impossible for the students to perform their English appropriately, if their vocabulary is very poor. In short, by having too limited

vocabulary, the students find it difficult to master language skills. Because good

vocabulary allows a person to interact, communicate and exchange information in a broad context.Keraf (2009: 65) stated that to communicate with

other communities, everyone needs to expand their vocabulary, they need to know as many words as possible in their language.

Vocabulary mastery is very important in learning English particularly in vocabulary mastery. The main reason for this is vocabulary is used as the main tool to understand forms, phrases, sentences, and words itself in texts. Therefore, in order to communicate well in a foreign language, students should acquire an adequate number of words and should know how to use them accurately (Huyendkk, 2003: 3).

But, based on the results of observations at the MTs Al-WashliyahTanjungHaloban on Wednesday, September the 12th 2018, the researcher argued that the students still has many deficiency on vocabulary mastery. Among them: Students are still unable to read or write vocabulary well and correctly. Then, students 'interest and motivation are also low due to the monotony of the way of learning so that it has an impact on learning outcomes and students' vocabulary mastery. The reseacher got data of the students' vocabulary score from the teacher. Form the data 64% got <70 score and only 36% got ≥70. It can be concluded that the students' vocabulary mastery is still low.

To solve the vocabulary mastery problem at the MTs Al-WashliyahTanjungHaloban, the researcher tried to investigate some techniques. So, the researcher interested to use clustering technique to improve students' vocabulary mastery at the MTs Al-WashliyahTanjungHaloban. By using clustering technique, it will be easier for the students to figure the meaning of the target word, to memorize it, and to use it when they find the right situation based on the context clues they have known. It is also fun so that the students will find that learning language is enjoyable.

Gabrielle (2013) defined that clustering is a way of tricking left-brain into silence and using the right-brain to come up with your own unique overview of a subject. The way to do it is very simple, but it will not work if you break any of the simple rules.

Based on the description above, the formulation of the problem was "is there any effect of clustering technique on students' vocabulary mastery?

THEORETICAL FRAMEWORK

Clustering Techniques

Clustering is the process of prewriting that making some explorers of ideas. Dawson (2013) said that clustering is a type of prewriting that allows people to explore many ideas as soon as they occur to people. Like brainstorming orfree associating, clustering allows you to begin without clear ideas. So, it can be concluded that clustering can explore many ideas from mind. It is a good way to develop idea to increase their vocabulary. The learner can do it on their own or with friends or classmates to try to find inspiration or ideas.

In the other hand Smalley and Marry (1995) stated that clustering is making a visual map of the ideas. It frees students from following a strictly linier sequence: thus, that way allows thinking more creatively and makes new associations. In addition John Langan said that clustering also known as diagramming or mapping, is another strategy that can be used to generate material for a paper. This technique is helpful for people to think in a visual way. In clustering, you use line, boxes, arrows and circle to show relationships among the ideas and details that occur to you. It means that clustering is a technique that can help students to narrow the subject especially for visual learners.

Clustering is an inventation activity which reveals possible relations among facts and ideas. Unlike listing (the next mapping strategy), clustering requires a brief period of initial planning. You must first come up with a tentativedivision of the topic into subparts or main ideasSo, the students determines the topic word then they looks for another words that is still related to the topic word.

From the definition above, the reseacher conclude that clustering is making a visual map or association that always thinking more creatively and to begin without clear ideas. Clustering technique helps the students to develop words in a bubbles or circle form. This technique will help the students how to association the ideas, how to write down the ideas that exist in their minds, and how to develop ideas.

The procedure of clustering technique in the classroom:

1. The reseacher or the teacher gave the students' a blank of paper.
2. The students write the topic from the teacher in the middle of the blank of paper and draw a circle around it.
3. Then draw a line out from the circle and write an idea associated with the topic.

4. Continue to map or cluster until you cannot think of any more ideas.

Here is the example of clustering technique application

METHOD OF RESEARCH

The research method used by researchers is to use quantitative experimental research methods. The design used in this research was Quasi Experimental. Before being given treatment, both the experimental group and the control group were given a test namely the pretest, with the intention of knowing the group's condition before treatment. Then after being given treatment, the experimental group and the control group were given another test namely posttest, to find out the state of the group after treatment.

This is to find out the extent of the influence of the clustering technique in English language learning vocabulary. Research conducted to compare between the control class and the experimental class. The control class was treated using conventional methods without using the clustering technique. While the experimental class was given treatment by using the clustering technique. The research design used is as follows (Sugiyono, 2010: 76).

Researh Design Concept

	Pre-test	Treatment	Post-test
Experimental Class	√	√	√
Control Class	√	-	√

RESULT AND DISCUSSION

Result

Result of Pre-Test and Post-Test in Experimental Class can be seen in the table below

Table 1 Result of Pre-Test and Post-Test in Experimental Class

No. Responden		Experimental Class	Pre-test	Post-test
1		VII-A	35	76
2		VII-A	60	88
3		VII-A	45	76
4		VII-A	50	82
5		VII-A	30	76
6		VII-A	52	80
7		VII-A	34	76
8		VII-A	80	92
9		VII-A	32	76
10		VII-A	53	76
11		VII-A	60	80
12		VII-A	67	84
13		VII-A	65	84
14		VII-A	67	76
15		VII-A	53	76
16		VII-A	42	76
17		VII-A	41	76
18		VII-A	35	76
19		VII-A	55	80
20		VII-A	42	76
21		VII-A	49	76
22		VII-A	20	56
23		VII-A	30	84
24		VII-A	50	76
25		VII-A	55	64
26		VII-A	58	80
27		VII-A	32	80
28		VII-A	68	80
29		VII-A	46	80
30		VII-A	36	80

31		VII-A	43	84
32		VII-A	45	84
33		VII-A	37	60
34		VII-A	39	76
35		VII-A	58	76
36		VII-A	42	76
37		VII-A	48	76
38		VII-A	58	70
39		VII-A	80	92
40		VII-A	85	92
41		VII-A	80	88
42		VII-A	40	76
43		VII-A	20	65
44		VII-A	45	68

Calculation of Mean (average) and standard deviation of pre-test and post-test in experimental class are :

Pre-test: $\bar{x}$ = 49,13 SD = 15,58

Post-test : $\bar{x}$ = 78,36 SD = 7,18

While the result of Pre-Test and Post-Test in Control Class can be seen in the following table.

Table 2. Result of Pre-Test and Post-Test in Control Class

No. Responden	Control Class	Pre-test	Post-test
1	VII-B	49	70
2	VII-B	20	60
3	VII-B	30	75
4	VII-B	20	50
5	VII-B	30	45
6	VII-B	50	78
7	VII-B	55	55
8	VII-B	58	76
9	VII-B	32	80
10	VII-B	68	80
11	VII-B	68	78
12	VII-B	46	50
13	VII-B	36	40
14	VII-B	43	60
15	VII-B	45	55
16	VII-B	37	50
17	VII-B	39	80

18	VII-B	30	58
19	VII-B	28	42
20	VII-B	48	80
21	VII-B	58	45
22	VII-B	41	40
23	VII-B	35	70
24	VII-B	55	80
25	VII-B	80	60
26	VII-B	32	65
27	VII-B	53	50
28	VII-B	60	58
29	VII-B	67	68
30	VII-B	15	35
31	VII-B	80	48
32	VII-B	32	30
33	VII-B	53	80
34	VII-B	60	60
35	VII-B	67	60
36	VII-B	65	80
37	VII-B	67	52
38	VII-B	53	50
39	VII-B	42	48
40	VII-B	35	40

Calculation of Mean (average) and standard deviation of pre-test and post-test in control class are :

Pre-test : $\bar{x}$ = 47,05 SD = 16,37
Post-test : $\bar{x}$ = 59,52 SD = 14,86

Result Validity Problem

Number of student (N) = 44, if significances level α= 0.05 is obtained r table = 0,297. The evaluation criteria if rxy> r tabel the moment it was said about the product is valid. From the 10 essays that have been tested contained 8 essays that valid. And from the 8 valid essays taken 8 essays for the test.

Result Reliability Problem

The reliability coefficient with (N)= 44 and significances level α= 0.05 by 0,297 while rcount = 0,458. Assessment criteria if r count > r table it is said that the whole matter had been a middle reliable item (attached).

Result of Normality Test

To test the student's ability to use data normality test Liliefors. From the calculation of the two classes, namely the value of learning outcomes of clustering technique on student's vocabulary mastery in class VII-A Mts Al-WashliyahTanjungHaloban pretest obtained Lcount = 0,0819, Ltabel = 0,133 and error analysis of students using clustering technique on student's vocabulary mastery of student in class VII-B pretest obtained Lcount = 0, 0804,

Ltable = 0,133. Because Lcount<Ltabel it can be concluded that two groups of samples is normal distribution.

Likewise, the result of normality test of learning outcomes of clustering technique on student's vocabulary mastery in class VII-A Mts Al-WashliyahTanjungHalobanpost test obtained Lcount = 0,0003, Ltabel = 0,133 and error analysis of students using clustering technique on student's vocabulary mastery of student in class VII-B post test obtained Lcount = 0, 0005, Ltable = 0,133. Because Lcount<Ltabel it can be concluded that two groups of samples is normal distribution.

Result of Homogeneity Test

Based on the calculation, shows that the price of F e.c = 3,004 with Ftabel = 4,07 and Fc.c = 3,157 and F table = 4,10 and the real level α= 0.05. Turns Fcount<Ftable, means learning outcomes with using clustering technique on student's vocabulary mastery have the same variance (homogeneous).

Result of Hypothetical Test

It is known that the two sets of data are normally distributed and have the same variance (homogeneous). The data used for testing this hypothesis is the ultimate test of student learning. Hypothesis testing is done to test the one hand by using statistical T-test.

From the calculation obtained t = 26,423. After comparing prices with price t count t tabel with significances level α= 0.01 for the t distribution list obtained t tabel = 1,663. Because t count does not between -1,663 and 1,663 then Ho is rejected, in other words Ha accepted. It can be concluded that there is an effect of clustering technique on student's vocabulary mastery at Mts Al-WashliyahTanjungHaloban.

Discussion

Clustering technique is very important in vocabulary learning because it gives students the opportunity to think more creatively but still relaxed and not tense. This makes it better if it can be applied in real situations after the learning takes place and students can be more confident to learn English, especially vocabulary.

Based on the results of research conducted by researchers, it can be explained that the learning process of teaching 7th grade English in TanjungHaloban MTS Al-Washliyah using clustering technique can stimulate students to more actively pay attention to lessons and deepen their memory and conceptual words so that they can influence students' vocabulary mastery.

By seeing pre-test and post-test score proved that clustering technique affect students' vocabulary mastery in experimental class. The mean of pre-test is 49,13. The mean of pre-test can be classified into low level. While the mean of post-test is 78,36. There is a significant improvement from pre-test score to post-test score. The mean of Post-test score have achieved the minimum passing

criterion. In control class which uses conventional method, the mean of pre-test is 47,05 while the mean of post-test score is 59,52. From the both of mean can be classified into low level.

Based on the hypothesis testing, the calculation obtained t = 26,423. Because t count does not between -1,663 and 1,663 it means that there is an effect of clustering technique on student's vocabulary mastery at Mts Al-WashliyahTanjungHaloban.

CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on data processing and testing hypothesis in this study can be concluded :

1) The Pretest average value before using Clustering Technique at VII-A 49,13 with standard deviation 15,58 while the average value of error analysis at VII-B using conventional model 47,05 and 16,37.
2) The Post-test examination on classroom after using Clustering Technique is 78,36 with standard deviation 7,18 while student who using conventional model VII-B 59,52 and 14,86.
3) The result of analyzing the data, the score of T-test is higher than t tabel (24,423 >1,663). It explains that the class that gets treatment is better than the class that doesn't get it. And can be concluded that there is an effect of Clustering Technique on student's vocabulary mastery at MTs Al-WashliyahTanjungHaloban.

Suggestion

4) In this research the researcher focused on the effectof clustering techniqueon students' vocabulary mastery in Junior (MTs) High School. Therefore, it is suggested for the further researcher may conduct this technique on different level of students, for example Elementary School or in Senior High School.

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