

**IMPROVING STUDENTS' VOCABULARY MASTERY BY USING CLUSTERING METHOD
AT TENTH GRADE STUDENTS OF SMA SW. DHARMA BHAKTI SIBORONGBORONG IN
ACADEMIC YEAR 2021/2022****Sesi S. Ompusunggu¹, Lamhot M. Situmeang², Bonari Tambunan³**

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Abstract

The purpose of this research is to improve students' vocabulary mastery by using Clustering Method. Clustering Method is a technique that can be used to improve access to the vocabulary which means that the aim of this technique is at increasing the association that learners make with words by being encouraged to think of words of related meaning and make it in kind of bubble diagram. The subject of this research was class X Of Science of SM Sw.Dharma Bhakti Siborongborong, consists of 23 students. This research was conducted by using Classroom Action Research that consists of two cycles with two meeting for each one. The instruments for collecting the data were quantitative and qualitative data. The quantitative data was taken from writing test (pre-test and post-test) and qualitative data was taken from field note. Clustering Method consisted of 20 items to fill was used as instrument to collect the data needed. The result show that the post-test result was higher than pre-test result. The lowest score in pre-test was 35 and the highest score was 90 with the mean 5.21. while in post-test, the lowest score was 70 and the highest score was 90 with the mean 75.21. From the result of the test, so there improvement about 21.08 between Pre-test and the Post-test. The result showed that there was an improvement of the students, it was 39 %, it can be concluded that using Clustering Method can improve students' vocabulary mastery.

Keywords: *improving, vocabulary mastery, clustering method*

INTRODUCTION**The Background of The Study**

English plays an important role in the development of science, culture and technology. Students' ability to speak English depends on their vocabulary. Richard (2001: 4) suggests that vocabulary is one of the real components of language, and one of the things applied in linguistics will change with their attention. If they master a lot of English vocabulary, they will have a greater potential in mastering other skills. There are several effective and simple teaching methods to teach students to enrich their vocabulary. Through simple methods, teaching revision and innovation, it is easier for students to master English vocabulary. With limited time allocation, students can group

words into several words. The solution to this problem is the clustering method. The clustering method is a method developed verbatim. From the results of the development of these words can be developed into other related words, and so on.

The Problem of the Study

Based on the background of the study, the problem of this study I formulated as :
“ Does clustering method improve students' vocabulary mastery?”

The Scope of the Study

This research is about the effectiveness of clustering method to improve students vocabulary mastery. The writer make the

limitation to discuss using clustering in teaching vocabulary for students grade X of SMA Sw Dharma Bhakti Siborongborong.

The Objective of the Study

Based on the problem of the study, the objective of the study is to find out whether clustering method can improve students' vocabulary mastery.

REVIEW OF RELATED LITERATURE

Vocabulary

Hornby (1995: 1331) defines vocabulary as the total number of words in a language; vocabulary is a list of words with their meanings". Burns (1972: 295) defines vocabulary as the stock of words which is used by a person, class or profession. According to Zimmerman in Coady and Huckin (1998: 5) vocabulary is central to language and of critical importance to the typical language learning. From the definitions above, it can be concluded that vocabulary is the total number of words which are needed to communicate ideas and express the speaker's means. That is the reason why it is important to learn vocabulary.

Types of Vocabulary

Some experts divide two types of vocabulary: active and passive vocabulary. Harmer (1991: 150) distinguishes between these two kinds of vocabulary. The first kind of vocabulary refers to the one that the students have been taught or learnt and which they are expected to be able to use. Haycraft, quoted by Hatch and Brown (1995: 369), divides two kinds of vocabulary, namely receptive vocabulary and productive vocabulary.

The Importance of Vocabulary

Vocabulary is the foundation of language. In a nutshell, vocabulary is important because it's the basis of all language.

- Reading

Vocabulary knowledge is perhaps the most important factor when it comes to reading comprehension, both for native and non-native speakers.

- Writing

You'll also find it much easier to express yourself in writing if you have a larger vocabulary. You'll have a larger selection of words to choose from and you'll be able to be more precise when you're expressing a thought, feeling, event or idea.

- Listening

We see similar evidence when it comes to listening skills for the language student, for obvious reasons.

Clearly, if you have never seen or heard a particular piece of vocabulary in a second language, it will be much harder to recognise and decode the sounds and therefore extract the meaning.

- Speaking

If you're a native speaker, you've probably experienced a time when a particular word is 'on the tip of your tongue' but you're unable to remember it. It can be frustrating and often cut the conversation short.

Vocabulary Mastery

Vocabulary mastery refers to the great skill in processing words of a language. It is an individual achievement and possession (Rivers, 1989: 125).

Vocabulary mastery is an individual's great skill in using words of a language which is acquired based on their own interest, need and motivation. Vocabulary mastery plays an important role in the four language skill and it has to be considered that vocabulary mastery is one of the needed components of language.

The Techniques in Teaching Vocabulary

Here are some techniques of teaching vocabulary as stated by Brewster, Ellis, and Girard (1992).

- a. Using Objects
- b. Drawing
- c. Using Illustrations and Pictures
- d. Contrast
- e. Enumeration
- f. Mime, Expressions and Gestures
- g. Guessing from Context
- h. Guessing from Context
- i. Translation

Clustering Method

Macdonald and Macdonald (1996:34) say that clustering technique is a type of free associated listing. It begin with a core word, a word that acts as a materials stimulus to make the writer come up with related terms that branch out from the center term.

Sinaga (2007) states that in clustering technique students have chance to show their ability to develop a certain knowledge given, connect it with other connected words and put in form of cluster.

clustering is a technique for developing the target words into new words related to them and put them into bubble diagram. Clustering technique seems to be important to find out the new words, so that they can recall and remind the vocabulary that they have learnt. By implementing clustering technique in learning the vocabulary, students can develop their vocabulary by clustering them with the linking word.

RESEARCH METHODOLOGY

Research Design

The design of this research is Action Research. Kemmis and McTaggart (1988:5) stated that action research is a form of collective self reflective enquiry undertaken by participants in social situations in orde to improve the rationality and justice of their own social or educational practices, as well as their understanding of these practices and the situations in which these practices are carried out.

Population and Sample Population

Population of a research is defined as the people whom appeal to the interest of the researchers in generalizing the outcomes of the research (Thompson, 2004; Trochim, 2004).

The Sample of this research are the tenth grade students of SMA Sw. Dharma Bhakti Siborongborong in academic year of 2021/2022.The total numbers of population will be 23.

Sample

Sample is a subset of individuals from a given population.

The populations of this research are the tenth grade students of SMA Sw. Dharma Bhakti Siborongborong in academic year of 2021/2022.The total numbers of population will be 23.

Technique of Collecting Data

As Arikunto stated (2006:222) that collecting the data can be used by observation, recording, teaching or treatment, and test method. In this research, the data collected by using some techniques of qualitative and quantitative data collection. The qualitative collected from interview, observation, and documents (field note). The quantitative data collected from tests (pre-test and post test).

The Procedure of Data Collection

Based on the model of the research, this procedure is composed of one cycles; each of the cycle consists of four steps, and they are as follows:

1. Planning the Action
2. Implementing the Action
3. Observing the Action
4. Reflecting the Result of the Observation.

Technique of Analysis

In this research, both qualitative and quantitative methodologies applied.

The analyses of the data collected by using two techniques, namely: 1) The Qualitative Data. The classroom action research analyzed the qualitative data from the result of field note; and 2) The Quantitative Data. The researcher analysed the quantitative data from the tests (the pre- test and the post-test). The result of the test can answer the problem whether or not the use of Clustering Method can improve students' vocabulary mastery. It can be identified from the differentiation of the mean in pre-test and post-test.

DATA AND DATA ANALYSIS

Data

This study applied the qualitative and quantitative data. The quantitative data were

taken from the percentage of the students' score in taking the pronunciation test. This research is conducted in one class with 23 samples. It was accomplished in two cycles. Every cycle consisted of the four steps of action research (planning, acting, observing and reflecting). The qualitative data were analyzed from the field notes. Field notes were used to show the students' participation and attitude in observation and during the class. Field notes were filled in every meeting during the research. Observation was the way to gather the information about the teacher behavior, students' attitude, the class participation, and the teaching learning climate while the research occurred.

Data Analysis

The quantitative data were taken from the students vocabulary test result. In the first meeting of cycle I, the researcher gave the pre-test. After giving the first meeting, she gave Clustering Method for the treatment. After conducted the first meeting, it was given test by using quiz. By analyzing the result of the quiz, it was continued with the third meeting which was being treated Clustering Method, and after that she gave the post test.

In performing pre-test tests, the writer provides 20 questions for the student that are compiled based on the words in the diagram. The writer analyzed how many problems the 23 students could answer. This analysis is supported by a student answer sheet. Each item of the test is calculated using the following rubric:

Table 4.1
Assessment Rubric for Pre-test

Name	Correct	Incorrect
Vocabulary	5	0

In post test, analyzing the test was same with the pre-test, the writer provides 20 questions for the student that are compiled based on the words in the diagram. The writer analyzed how many problems the 23 students could answer. This analysis is supported by a student answer sheet. Then, the result of the data counts was counting down the right answer in every students' worksheet with this formula:

Table 4.2
Assessment Rubric for Post-Test

Name	Correct	Incorrect
Vocabulary	5	0

$$\text{Score} = \frac{R}{N} \times 100$$

where :

R : right answer

N : total of the test item

The improvement of the students vocabulary mastery by using Clustering Method was shown in the following table :

No	Name of Students	Pre-Test (x1)	Post-Test (x2)
1	Adi Putra Sihombing	50	70
2	Agustina Sianipar	35	70
3	Agustina Melanie Sianipar	85	90
4	Benjamin Sigalingging	55	75
5	Betaria Simanjuntak	90	90
6	Dewi Putri Sigalingging	50	75
7	Dennis Jeriko Nababan	60	75
8	Diana Lumbantoruan	40	70
9	Elvis Syelomita Simanjuntak	45	70
10	Jessy Veronica Br.Manurung	75	80
11	Juliana E Simanjuntak	35	70
12	Koresh Simanjuntak	35	70
13	Maradona Lumbantoruan	45	70
14	Novita Marsaulina Manullang	50	70
15	Pardomuan Manalu	75	80
16	Reja Monalisa Pasaribu	40	75
17	Revaldo A.I Sihombing	65	75
18	Rifanni Siburian	45	70
19	Risky H Nainggolan	60	75
20	Ruth Simatupang	30	70
21	Syenri M Hutasoit	75	80
22	Tasya L Simanjuntak	30	70

23	Tiur Pasaribu	Suksesih	75	90
Total			1.245	1.730
Mean (X)			54.12	75.21

The Quantitative Data

The students test score showed the significant improvement on the students vocabulary mastery.

The improvement of student score in doing the test can be seen from the mean of the students score in each cycle. The mean of pre-test and post-test can be calculated with the formula as follows :

1. The mean of Pre-Test

$$\bar{X}_1 = \frac{\sum X_1}{N}$$

$$\bar{X}_1 = \frac{1.245}{23}$$

$$= 54.13$$

2. The mean of Post-Test

$$\bar{X}_2 = \frac{\sum X_2}{N}$$

$$\bar{X}_2 = \frac{1.730}{23}$$

$$= 75.21$$

The Qualitative Data

The qualitative data were Analyzed from field notes. Field notes were used to show the students' participation and attitude in observation and during the class. Field notes were filled in every meeting during the research.

Table 4.8
Field Note Analysis

	1st			2nd			3rd		
	1	2	3	1	2	3	1	2	3
Students' Participation									
students' Attention	39 %	61 %	-	61 %	39 %	-	70 %	30 %	-
Students' Participati on	43 %	57 %	-	30 %	70 %	-	65 %	45 %	-
Interaction between students and teacher	39 %	61 %	-	30 %	70 %	-	65 %	45 %	-

Students' Attention									
language used between students and teacher	35 %	65 %	-	43 %	57 %	-	43 %	67 %	-
students' responses toward teachers' Instruction	52 %	48 %	-	39 %	62 %	-	61 %	39 %	-
Students' Attitude	65 %	45 %	-	65 %	45 %	-	65 %	45 %	-

Scale for the class participation :

1=Always particiapate from the beginning to the end

2= rare in participate from the beginning to the end

3= no participate

Scale for students' attitude

1 = always enthusiastic in the class from he beginning to the end

2 = rare in enthusiastic in the class from beginning to he end

3 = no enthusiastic in the class from the beginning to the end

The Research Findings

Having done the research and calcated the mean score of Pre-test and Post-test,it shows the different result in each test. the mean of Post-test higher than mean of Pre-test. it can be seen from the mean of post-test (75,21) was higher than the mean of pre-test (54,13)

The researcher finding there also obtained from the field note. The data from field indicated that students got improvement in learning vocabulary. They gave good attention after introduced Clustering method and their motivation in studying was encrease. The result indicates that Clustering Method can improve students' vocabulary mastery.

CONCLUSION AND SUGGESTION

Conclusion

The objective of this study was to find out whether the use of Clustering method can improve the students' vocabulary or not. After conducting the research, there are some points which could be taken as the conclusion. The used of this method to teach vocabulary to the

tenth grade students' of SMA Sw. Dharma Bhakti Siborongborong in academic year 2021/2022 run well. All of the students liked the Clustering Method. It was proved by students' answers while interview.

Suggestions

Related to the conclusion above, there are some which are points suggested to:

- For English teachers, they should give the interesting method to the students
- For the next researchers, the writer hopes that this research could be the one of the references for the further research dealing with vocabulary.
- Practically, students should use Clustering Method to help them improve their English vocabulary mastery.

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