



The Effect of Peer Drilling on 10th Grade Student's Vocabulary Mastery

Ishak^{a*}, Euis Yanah Mulyanah^a, Andy Wijaya^a

^aUniversitas Muhammadiyah Tangerang

Article Info

Article history

Received: 2 April 2019

Approved: 9 April 2019

Published: 9 April 2019

Keywords:

Peer Drilling; Vocabulary Mastery

*Correspondence Address:

ishak@umt.ac.id

Abstract

This research is expected to know whether there is significant different score of vocabulary test before and after treatment has been given. This research is a quasi-experimental design where the population is Tenth Grade of SMA Muhammadiyah 2 Tangerang. The researcher took sample from X.4 class as control class and X.5 class as experiment class. The sample is 40 students for each class. In collecting the data, the researcher used interview, pretest and posttest of vocabulary and applied peer drilling as a technique in teaching learning process. Furthermore the researcher calculated the data by using t test. In addition the hypothesis test result at the degree of significance 0.05 indicates that in control group H_0 is rejected and H_1 is accepted because $t \text{ count} > t \text{ table}$ ($4.70 > 1.684$) where there is a little significant difference of student's vocabulary test whereas in experiment class, H_0 is rejected and H_1 is accepted with $t \text{ count} > t \text{ table}$ ($18.08 > 1.684$). It means that there is more significant difference of student's vocabulary test. In other words, Peer Drilling can improve student's vocabulary mastery in the classroom.

© 2019 English Education Department, University of Sultan Ageng Tirtayasa

INTRODUCTION

In teaching English, teachers should have a creative way to develop four skills such as speaking, writing, reading and listening. Not only four skills but also teachers should know very well about the element of English language including of grammar, pronunciation, vocabulary, and spelling to support language skill. In Indonesia the government has made some efforts to introduce English. It is not only taught in junior and senior high school but also in elementary school. But this effort is not completely success. In fact most of students get the difficulties to understand English language. In this case the researcher see the obstacle in learning English, the problem can be found in element of language especially vocabulary. If students have so many vocabularies it means they will understand. Briefly the

researcher tries to research about the vocabulary mastery. Base on the observation, there are students problem especially on their vocabulary mastery such as they are lack of vocabulary, do not have time to learn about the vocabulary in the classroom, lack of motivation in learning vocabulary, students have problem in memorizing some difficult words and for the last the teacher does not use appropriate technique in teaching vocabulary. Based on the condition above, the researcher tries to apply peer drilling as a technique to improve student's vocabulary mastery at tenth grade of SMA Muhammadiyah 2 Academic Year 2016/2017. The objective of the study is to find out whether there is significant influence of student's vocabulary mastery taught by using peer drilling and without using peer drilling. In addition this research is expected to help the researcher and teachers in teaching vocabulary with appropriate technique because according to Delar and Hocking in Thornbury (2002:13). They said that if you spend most of your time studying grammar, your English will not improve very much. You will see most improvement, if you learn more words and expressions, you can say very little with grammar, but you can say almost anything with words, so that is why vocabulary is the most important part in language element because without vocabulary, it is quite impossible for us to make conversation. On the other hand if people have so many vocabularies, they can speak very much and arrange the word into the sentences.

THEORETICAL FRAMEWORK

In any language vocabulary is really need to be mastered for language learners, because all languages have word, in learning language vocabulary is one of the most important element besides grammar, pronunciation and spelling. According to Takac (2008:4) vocabulary could be defined as a dictionary or a set of word. While Barnhart (2008:697) he said that vocabulary are stock of word used by person, class of people, profession and a collection or list of words, usually in alphabetical order and defined. Moreover, Milton (2009:7) he declared that vocabulary is the word, presumably for ease and convenience. Based on several experts above, vocabulary refers to the words that we must understand to communicate effectively with other people. Mostly words can be found in dictionary in alphabetical order, whereas a new item of vocabulary may be more than a single word: for example post office and mother-in-law, which are made up

of two or three words but express a single idea.

Vocabulary

In addition, there are so many definitions about vocabulary, the researcher may conclude that vocabulary is collection of letters that has meaning and it is used by person for communication. Language learners are expected to find the new word and try to find the meaning. So they can increase the number of vocabulary through the activity such as reading book, listening music and watching television. There are two types of vocabulary it is often called by general and specific vocabulary. General vocabulary is a kind of word used in daily conversation as generally, it has no relation to the specific field. Different with specific vocabulary it has relation to the specific field such as business, medical, law, economic and so on. Dealing with Mondria and Wiersma (in Boogards & Laufer, 2004:79) an experienced foreign language teacher told us that he always asks pupils to learn words both receptively and productively.

Types of Vocabulary

According to Palmer, West and Crow (in Nation, 2001:24) they conveyed that vocabulary consists of receptive carries the idea that we receive language input from others through listening or reading and try to comprehend it, whereas productive that we produce language forms by speaking and writing to convey messages to others. Based on the experts above, there are two types of vocabulary. They are productive and receptive vocabulary. Productive vocabulary is a vocabulary which always used both spoken and written. This vocabulary is usually heard and found in many things such as direction sign, newspapers, magazines, television program and so on. The meaning of productive vocabulary is easy to be understood. On the other hand native language always uses it for making dialog every day. For instance the word of hungry, in the sentence form, it may be "I am so hungry, so I need some foods". The word of hungry can be found in daily conversation and it is included into the productive vocabulary or it can be mentioned as the active vocabulary. While receptive vocabulary is a vocabulary that seldom to be used either oral or print. This vocabulary is exist but native language seldom or even never uses it in their daily conversation. The meaning of receptive vocabulary is quite difficult to be understood by the learner. So that is why the word seldom to be found in the text or dialog. For instance hectic (*ribut/ ramai sekali*), often the native and learner

prefer to use crowded (*ramai/ penuh sesak*) as the easy vocabulary. In short, it can be classified as passive vocabulary.

Vocabulary Assessment

In this research the researcher gave the vocabulary assessment, including of scoring system. There are many kinds of vocabulary assessment which can be applied by the teacher such as multiple choice questions, matching word, fill in the blanks and true or false. Dealing with (Read, 2000:77) multiple-choice format is one of the most widely used methods of vocabulary assessment, both for native speakers and for second language learners. Scoring system in multiple choice questions can be gained by the correct answer for exactly if the students' answer is correct, it means they will get score and if the students' answer is wrong. It means that they will get nothing. In this research the researcher gave 30 multiple choice questions. The result can be obtain by the correct answer is divided 3 and the final score will be 10. Multiple choice questions format is mostly used form for many of us in school and it can help teachers to correct easily and the teaching technique used peer drilling.

Peer Drilling

Furthermore to explore more detail about peer drilling, here are some definitions based on some experts. According to Brown (2000:131) drill may be defined as a technique that focuses on a minimal number (usually one or two) of language forms through some types of repetition. While Rustiyah (2008:125), she conveyed that drilling is a technique which can defined as a way of teaching where students do some activities, for instance doing exercises in order to have a higher or better skill related to the things have been learnt before. The last, Rusman (2012:290) he stated that drilling is a model in learning activity where students are given the exercise through the material has been learned before, in drilling model, students will get the certain exercise continuously in order to remember.

Basically the word of peer may be found in variety of education context such as peer tutoring, peer learning, peer assessment and so on. In this research the writer mainly focus on peer drilling. According to Goldschmid in Falchikov (2001:1) conveyed peers were taken to be students at a similar age and educational level, a student will conduct as a teacher or tutor in the classroom whereas the others will be as tutees. Furthermore to avoid the confusion between peer drilling and peer tutoring. Grant ("Tutoring and APA," n.d.). Stated that peer

tutoring is most effective with drill and practice activities rather than with the introduction of new information. In other words, peer drilling is a part of peer tutoring, where the activity mainly focuses on drill and practice for some exercises including repetition and this activity can be done by students or peers in the classroom.

Moreover peer drilling is a kind of drilling which conducted by student to students. They will get reinforcement by doing repetition activity. Something that has been learned will stay in their mind as much as possible. In peer drilling, students are forced to remember the certain material for instance vocabulary. Vocabulary mastery cannot be gained entirely by the process of growing but it also must be taken by the learning. In this case peer drilling may help the language learner either improve or increase the vocabulary mastery through some repetition activities. It can be done by repeat the particular exercise for several times and teacher is conducted as facilitator. Here the difference between drilling and peer drilling can be seen by the person who acts the activity. In drilling, the activity is often done by the teacher and students, whereas in peer drilling it is only done by peers.

RESEARCH METHODOLOGY

This research conducted at SMA Muhammadiyah 2 Cipondoh in Academic Year 2016-2017 as a place to conduct the research and got the data related to know how peer drilling may increase students' vocabulary mastery. Based on the information from English teacher this school has a superior class, it means students in this class have a higher score for every lessons including of English subject. From the condition above the researcher wants to do research related to vocabulary mastery in regular class. The process of research was conducted for three months; it was conducted in January until March 2017.

In this research, the researcher used experiment research design which may show the effect of the technique whether it is improving students' vocabulary or not. And the purpose of this experiment research is to establish a cause and effect relationship between two variables as mentioned above. The researcher divided classes into two groups; they were control class and experiment class. The first meeting the researcher gave them a vocabulary pretest, then after giving some treatments the researcher gave a vocabulary posttest. The researcher saw the

result of the score through comparing pretest and post test score. In addition, treatment was called peer drilling where students were forced to drill each other's with certain words and they should remember the words.

The population in this research was tenth grade students of SMA Muhammadiyah 2 Cipondoh in Academic Year 2016/2017, which consists of five classes. There are 44 students in X.1 class, 45 students in X.2 class, 45 students in X.3 class, 40 students in X.4 class and 40 students in X.5 class, total of students are 214 students.

In this case the researcher used random sampling method where the sample would be chosen randomly by the researcher because the sample represents the amount of population. The using of random sampling method gave the opportunity for population to be as a sample in the research.. The sample was taken from students who have a good score in English subject. The samples in this research were two classes of tenth grade students. The researcher took students in X.4 class as control and students in X.5 class as experiment where the condition was quite similar.

In this research, the researcher used some of techniques in collecting the data for instance test and interview. Test used to measure the students' knowledge. In collecting data the researcher used instrument test to know the condition of students. Moreover, the instrument test was given in both classes, which is called as experiment and control class. The students should answer 30 multiple choice questions to know their vocabulary mastery. Interview used to know the information from the real sources. Interview is a way of collecting the data, where the researcher asks to the informant related to the information that we need. In this case, the researcher took an open interview with English teacher of SMA Muhammadiyah 2 Cipondoh Tangerang to complete the data where to know the condition of the research such as the students' vocabulary mastery and the way of teaching. The researcher took the data through analyze, interpret and conclude after collecting data. The data analyzed by statistic in the form

DISCUSSION

The research was conducted at SMA Muhammadiyah 2 Cipondoh, The researcher took students from tenth grade as population and two classes as sample. The researcher took X.4 class as control class and X.5 class as experiment

class. For the first meeting the researcher gave the same pretest in both classes, they were control and experiment class. The researcher gave treatment for several meeting in experiment class with using peer drilling and in control class without using peer drilling. After giving treatment the researcher gave same test in both classes, it was called as posttest.

After giving pretest and posttest in experiment class and control class, the researcher analyzed the students' score. It was processed by using statistical calculation for interpreting the data. In analyzing the data, the researcher used the gained score of the students. It was obtained by looking for the difference between the post test score and pretest score. The data included the lowest and the highest gained scores, score range, number of class, mean, mode, median and deviation standard.

After giving pretest the researcher gave the post test. The post test was conducted to determine the students' score after treatment was given. Based on the gained score of the post test, the researcher got the data. It was found that the lowest gained score in the experiment class was 50 and the highest gained score was 90. Based on the calculation of basic statistic it was obtained that the score range was 40, the number of class was 7, mean was 75.75, mode was 86.04, median was 78.5 and deviation standard was 11.39.

The data distribution of the experiment class could be showed in the form of frequency table as the follows:

Table 1: The Data Distribution of Post Test in Experiment Class

Class	Interval	Frequency
1	50 - 55	3
2	56 - 61	3
3	62 - 67	4
4	68 - 73	5
5	74 - 79	6
6	80 - 85	9
7	86 - 91	10
Total		40

Based on the table above, it can be seen that there are 3 students who got scores in score range 50 - 55, 3 students who got scores in score range 56 - 61, 4 students who got scores in score range 62 - 67, 5 students who got scores in score range 68 - 73, 6 students who got scores in score range 74 - 79, 9 students who got scores in score range 80 - 85 and 10 students who got scores in score range 86 - 91.

The explanation above shows that the frequency of the scores tends to be normally distributed. The tendency of the scores distribution of the experiment class above, when visualized in the form of a histogram and polygon was shown as follows:

The histogram and polygon above shows that the most students' scores are in score range 86 - 91 so it was the highest frequency, it means that there are many students who get a good scores after the teacher gave treatment with using peer drilling.

Table 2 : Table Cumulative Frequency of Posttest in Experiment Class

Lower Limit Class	Cumulative Frequency Less Than	Cumulative Frequency More Than
9.5	0	40
16.5	4	36
23.5	12	28
30.5	21	19
37.5	27	13
45.5	32	8
51.5	38	2
58.5	40	0

The table above shows that the cumulative frequency in posttest of experiment class is 79.5

Table 3 : Central Tendency of Post Test in Experiment Class

Data Result		
Mean	Median	Mode
75.75	78.5	86.04

The dispersion of the data consists of range and deviation standard as follows:

Table 4 : Dispersion of the Data Post-test in Experiment Class

Data Result	
Range (R)	Deviation Standard (S)
40	11.39

Presentation of Data (Posttest Control Class)

The researcher gave posttest as same as with experiment class where it was conducted to know whether there is significant influence of students' score taught by using peer drilling and without using peer drilling. From the data, it was found that only a few students who got a good score. After the researcher calculated

the data, it was obtained that the scores range was 40, the number of class was 7, the length of class was 6, mean was 60.5, mode was 61.5, median was 60.83 and deviation standard was 9.6.

The data distribution of control class can be showed in the form of frequency table as the following:

Table 5 : The Data Distribution of Posttest in Control Class

Class	Interval	Frequency
1	40 - 45	3
2	46 - 51	5
3	52 - 57	7
4	58 - 63	9
5	64 - 69	8
6	70 - 71	6
7	76 - 81	2
Total		40

The explanation above shows that the frequency of the scores tends to be normally distributed.

Table 6 : Table Cumulative Frequency of Posttest in Control Class

Lower Limit Class	Cumulative Frequency Less Than	Cumulative Frequency More Than
39.5	0	40
45.5	3	37
51.5	8	32
57.5	15	25
63.5	24	16
69.5	32	8
75.5	38	2
81.5	40	0

In table above showed that cumulative frequency of posttest in control class is 60.

Table 7 : Central Tendency of Posttest in Control Class

Data Result		
Mean	Median	Mode
60.5	60.83	61.5

The dispersion of data consists of range and deviation standard as follows:

Table 8 : The Dispersion of Data Posttest in Control Class

Data Result	
Range (R)	Deviation Standard (S)
40	9.6

The researcher used T-test (Pretest–Posttest) Mean Different Test Two Pairs of Data. The researcher proposed Null Hypothesis (H_0) and Alternative Hypothesis (H_1) as follows:

H_0 : There is no significant difference of students' result of vocabulary mastery between control and experiment class.

H_1 : There is significant difference of students' result of vocabulary mastery between control and experiment class.

By using a significant level 5% the test criteria are:

If $t_{count} < t_{table}$ so, There is no significant difference of students' result of vocabulary mastery between control and experiment class.

If $t_{count} > t_{table}$ so, there is significant difference of students' result of vocabulary mastery between control and experiment class.

Table 9: Hypothesis T-test (Pretest- Posttest) Mean Different Test Two Pairs of Control Group

Test	Total	T_{count}	T_{table}
Pre test	2095	4.70	1.684
Post test	2427		
d (Post-Pre)	332		
d^2	7604		

According to statistic data, it is obtained the value of t_{count} is 4.70. The degree of freedom is 39 and the degree of significance is 5 % as mentioned above it can be seen that the value of t_{table} is 1.684. By comparing the result of t_{count} and t_{table} that $t_{count} > t_{table}$ ($4.70 > 1.684$) according to the result, the researcher got conclusion H_0 is rejected and H_1 is accepted. In other words there is little significant difference of student's result of vocabulary mastery.

In this case, the researcher described the result of research entitled the effect of peer drilling on the tenth grade student's vocabulary mastery at SMA Muhammadiyah 2 Cipondoh. This research was aimed to investigate the use of peer drilling whether there is significant effect for students' vocabulary test or not. In the previous explanation the researcher gave vocabulary pretest and posttest in both classes, it was called as control class and experiment class. Where the treatment was given after giving pretest, but this treatment only conducted in experiment class, this treatment was called as peer drilling.

Peer drilling is a part of peer tutoring where the main activity is focused on repetition. In this case students memorize and repeat some vocabularies for several times. Peer drilling is intended to help student in improving and increasing their vocabulary mastery. This activity is conducted by students meanwhile the teacher conducted as a facilitator. Based on the hypothesis, in experiment class it was known that t_{count} (18.08) was higher than the t_{table} (1.684). It indicates that H_0 is rejected. In other words there is more significant effect of using peer drilling in improving students' vocabulary mastery.

According to the description above it shows that peer drilling is an alternative way which can be done by the teacher in teaching vocabulary in the class room. In order to make students have so many words in their mind. Based on the result of the calculation of the average score of pre and posttest and t-test in both classes which is called as control and experiment class, the researcher made conclusion about this research. The average score of pretest and posttest in control class are 52.37 and 60.67 meanwhile in experiment class are 32.57 and 70.85. From this calculation it was different significant score between pre and posttest. It can be seen in experiment class. On the other hand the technique of teaching which has been used in experiment class was successful because it can increase the students' score in vocabulary test.

Furthermore the hypothesis test result at the degree of significance 0.05 indicates that in control group H_0 is rejected because $t_{count} > t_{table}$ ($4.70 > 1.684$) and H_1 is accepted where there is a little significant difference of student's vocabulary test while in experiment group $t_{count} > t_{table}$ ($18.08 > 1.684$) where H_0 is rejected and H_1 is accepted. It means that there is more significant difference of student's vocabulary test in experiment group. In other words, peer drilling increase and improve students' vocabulary mastery in the classroom.

CONCLUSION AND SUGGESTION

In this research there were some factors influenced the outcome of students' vocabulary mastery in the classroom while the researcher conducted the research. The first one, it was related on students' interest and motivation in learning English especially for vocabulary. A few of them did not have a good interest and motivation so that is why the researcher applied game through peer drilling to avoid the condition where students easy to get bored. For the second one, it was related to the technique of teaching. Some cases the learning activity in the classroom seems to be monotonous. In addition peer drilling can be an alternative way in teaching English especially in vocabulary mastery.

Based on the conclusion, there are some suggestions for English teacher, peer drilling can be used in the classroom to increase and improve students' vocabulary mastery. In some cases students get difficulties to memorize the words. This activity may help students to remember the words by doing repetition which can be done by other students. Furthermore students are expected to memorize the words without forcing themselves. So it can be easy and joyful for them. Students should interest and have a good motivation in learning English, so it can make them feel comfortable and easy to get the material. To increase and improve vocabulary, students may learn from simple activity such as reading book in English text, listening music especially for English song and watching television through English channel. For the Researcher the result of this researcher can be used as a reference for further research conducted in the future in order to create a better teaching in English learning process especially vocabulary mastery.

REFERENCES

- Allen, V. F. (1983). *Techniques in Teaching Vocabulary*. New York: Oxford University Press.
- Barnhart, C. A. (2008). *The Facts on Student's Dictionary of American English*. New York: Infobase Publishing.
- Bogaards, P & Laufer, B. (2004). *Vocabulary in a Second Language: Selection, Acquisition, and Testing*. US: John Benjamins Publishing Company.
- Brown, H. D. (2000). *Teaching by Principles. An Interactive Approach to Language Pedagogy*. New York: Longman.
- Falchikov, N. (2001). *Learning Together, Peer Tutoring in Higher Education*. London: Routledge Falmer

- Grant. (2015). *Peer Tutor*. Retrieved from Website: http://www.cehd.umn.edu/ceed/publications/tipsheets/preschoolbehavior/peer_tutor.pdf (November, 24th 2016. 7.56 PM)
- Haycraft, J. (1978). *An Introduction to English Language Teaching*. UK: Longman Group.
- Jackson, H. (2002). *Grammar and Vocabulary*. New York: Routledge.
- Milton, J. (2009). *Measuring Second Language Vocabulary*. UK: British Library.
- Nation, I.S.P. (2001). *Learning Vocabulary in Another Language*. UK: Cambridge University Press.
- Pearson, J. (1998). *Communicative Drilling*. Retrieved from Website: http://www.matefl.org/mgxroot/page_10672.html (November, 27th 2016.11.01 AM)
- Read, J. (2000). *Assessing Vocabulary*. UK: Cambridge University Press.
- Riadi, E. (2014). *Metode Statistika Parametrik dan Non-Parametrik*. Tangerang: Pustaka Mandiri.
- Roestiyah, N.K. (2008). *Strategi Belajar Mengajar*. Jakarta: Rineka Cipta.
- Rusman. (2014). *Model-model Pembelajaran (edisi kedua)*. Jakarta: Rajawali Pers.
- Takac, V.P. (2008). *Vocabulary Learning Strategies and Foreign Language Acquisition*. UK: British Library.
- Thornbury, S. (2002). *How to Teach Vocabulary*. UK: Pearson Education.
- Watcyn-Jones, P. (2000). *Test Your Vocabulary*. England: Pearson Education Limited.