

A MODIFIED STUDENT TEAMS ACHIEVEMENT DIVISIONS (MSTAD) TO ENHANCE STUDENTS' VOCABULARY ACHIEVEMENT

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Abstract. The research was implemented to find out i) the significant difference in vocabulary achievement between students who are taught with the STAD technique and the MSTAD technique and ii) to investigate the students' perceptions towards MSTAD technique. This study applied the true experimental design. There were 32 experimental students and 30 control students as the sample chosen randomly at SMAN 3 Bandar Lampung. The instruments used were the vocabulary test, questionnaire and interview. The result showed that there was a statistically significant difference in vocabulary achievement between students who were taught with the STAD technique and MSTAD technique. It indicates that the vocabulary teaching technique is one of the factors which affects the students' vocabulary achievement. Furthermore, the use of MSTAD technique in teaching vocabulary is regarded as being more effective to enhance the students' vocabulary achievement.

Keywords: *MSTAD, STAD, vocabulary achievement*

Abstrak. Penelitian ini dilaksanakan untuk mengetahui i) perbedaan signifikan dalam pencapaian kosa kata antara siswa yang diajar dengan teknik STAD dan teknik MSTAD dan ii) untuk menyelidiki persepsi siswa terhadap teknik MSTAD. Penelitian ini menerapkan desain eksperimental sejati. Ada 32 siswa eksperimen dan 30 siswa kontrol sebagai sampel yang dipilih secara acak di SMAN 3 Bandar Lampung. Instrumen yang digunakan adalah tes kosa kata, kuesioner dan wawancara. Hasil penelitian menunjukkan bahwa ada perbedaan yang signifikan secara statistik dalam prestasi kosa kata antara siswa yang diajar dengan teknik STAD dan teknik MSTAD. Ini menunjukkan bahwa teknik pengajaran kosa kata adalah salah satu faktor yang mempengaruhi prestasi kosa kata siswa. Selain itu, penggunaan teknik MSTAD dalam pengajaran kosa kata dianggap lebih efektif untuk meningkatkan prestasi kosa kata siswa.

Kata kunci: *MSTAD, STAD, pencapaian kosa kata.*

INTRODUCTION

Vocabulary, as one of the knowledge areas in language, plays a great role for learners in acquiring a language (Cameron, 2001). Vocabulary is emphasized as one of language aspects that is presented in the classroom during the process of language teaching. In teaching-learning process, mastery of vocabulary is necessarily needed by the students to form sentences. Students should acquire an adequate number of words and should know how to use them accurately. The acquisition of vocabulary would help them in gaining, understanding, and also enhancing the process of knowledge transferred in learning English. To achieve these aims, the students are expected to master a large number of vocabularies.

However, in a classroom in which traditional methods are implemented, the learners have difficulties in learning new vocabulary words. Based on the researcher's preliminary research of some students at SMA Negeri 3 Bandar Lampung, they have told that learning vocabulary is difficult. The underlying reason for this problem is the fact that most teaching techniques, such as using dictionaries and getting definitions lead learners to memorize words. The teaching learning process tended to use teacher-centered activity.

As the communicative approach started to gain popularity in language teaching circles, a student-centred approach in which interaction plays a big role has started to inspire teachers. The new approaches based on student-centred learning is started to appear in teaching circles namely cooperative learning. One of the cooperative learning techniques supposed to be useful in teaching

vocabulary is Student Teams Achievement Divisions (STAD).

STAD is a structured learning strategy that was developed by Robert E. Slavin at John Hopkins University. STAD refers to a variety of cooperative learning methods in which students work in small groups to help one another learn academic content (Slavin, 1998).

According to Hayuningtyas, et al. (2013), Student Team Achievement Division (STAD) is one of cooperative learning techniques in which students work in groups of four or five. The groups consist of students from different academic levels, gender, and background ethnics. The different academic levels mean that there must be students with high, average, and low ability in a group. They are responsible for discussing and working in group before answering quiz individually. It means that students do an understanding in a group before teacher gives the quiz individually.

Many studies have been conducted to improve the students English vocabulary achievement by implementing STAD, thus, most of these studies were conducted in the nature of experimental teaching. Some examples are those carried out on EFL learners such as by Ilyas (2017) to junior high school in Indonesia, Ishtiaq, et al. (2017) to university students in Saudi Arabia, and Shafiee and Khavaran (2017) to university students in Iran. The finding from their studies showed that teaching vocabulary by using STAD in the experimental classes were more effective than the control classes that were taught by using non-STAD techniques.

Most of the studies on STAD have examined the effect of this technique on vocabulary achievement, but there are some studies which have tried to examine

the effect of STAD on other areas of language learning. For example Van Wyk (2012) explored the effects of STAD as a cooperative learning experience in relation to direct instruction on student achievement, attitude and motivation in economics education. The results revealed that STAD compared to direct instruction promoted positive attitudes, showed better achievements and motivated students to learn in economics education. Moreover, Rakhman and Syatroh (2015) explored the implementation of STAD to find its advantages and disadvantages in learning practice of translating and interpreting, the results found that this technique is effective in increasing students' participation in a group work and their focus in answering the teacher's questions.

Based on those related previous research, unfortunately, no previous study examined the modification of STAD technique to optimize the students' English achievement. In this case, the researcher wants to modify the STAD technique by modifying the steps of it to teach vocabulary. The difference between regular STAD and modified STAD (MSTAD) was in the steps. In regular STAD, the teacher teaches and explains the lesson to the students and then they work in teams and ensure that they have mastered the lesson. As we know that STAD technique is based on the idea of having students work in cooperative learning teams to learn academic objectives. However, this technique emphasizes the use of teacher-centered in the teaching stage that was contrary with the principle of cooperative learning. That's why the modification is needed.

Therefore, based on the explanation above, the researcher proposed two research questions as follows.

1) Is there any significant difference in vocabulary achievement between

students who are taught by using STAD and MSTAD technique?

2) What are the students' perceptions after being taught by using MSTAD technique?

METHOD

This was quantitative and qualitative research with true experimental design. There were two groups taken randomly from 6 classes of the tenth grade students of SMAN 3 Bandar Lampung; they were 32 students in the experimental group and 30 students in the control group. In the experimental class, the researcher used MSTAD technique to enhance the students' vocabulary achievement. On the other hand, in the control class, the researcher used regular STAD to enhance the students' vocabulary achievement. The instruments used were the vocabulary test, students' perception questionnaire and interview.

RESULTS AND DISCUSSION

The following explanations are results and discussion of the two research questions in this research.

1. There is a significant difference in vocabulary achievement between students taught by using STAD and MSTAD.

To answer the first research question, the researcher obtained the data from pre-test and posttest. To know the increase in students' vocabulary achievement, the result can be seen in the table below.

Table 1.
The Improvement of Students' Score

Class	Pretest Mean	Posttest Mean	Increase
Control Class	48,33	81,58	33,25
Experimental Class	49,22	83,90	34,78

The table above shows that the increase of the mean scores in the control class based on the calculation is 33,25 meanwhile the increase of the mean scores in the experimental class is 34,78. Thus, it indicated that after having the treatments through STAD and MSTAD technique, the vocabulary achievement has been enhanced.

In order to find the comparison of the students' outcome and understanding between the experimental class and the control class, the researcher used normalized gain test by using SPSS 25. This measure is commonly described as the amount students learned divided by the amount they could have learned. The normalized gain result of students' vocabulary achievement were presented in the following table:

Table 2.
The Normalized Gain Results of Students' Vocabulary Achievement

Normalized Gain Results	Class	Mean
	Experimental	70,199
	Control	63,091

Based on the table above, the improvement of the students' scores can be seen from the mean of normalized gain in experimental class, it was 70,19% which means in high category, meanwhile the control class was 63,09% which means in the middle category. Then it can be concluded that MSTAD was having higher effectiveness than the regular STAD technique in enhancing students' vocabulary achievement.

Furthermore, to prove whether the proposed alternative hypothesis is accepted or rejected, the Independent Samples T-test is used by analyzing the data in SPSS version 25 for windows in order to see the significant difference of the students' vocabulary achievement between STAD technique and MSTAD technique. The following table is the result to answer the following hypothesis of the first research question.

Table 3.
Results of Independent Samples T-test

		t-Test for Equality of Variances	
		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	.221	
	Sig.	.640	
T-test for Equality of Means	t	3.112	3.100
	df	80	80.378
	Sig. (2-tailed)	.003	.003
	Mean Difference	7.10808	7.10808
	Std. Error Difference	2.28308	2.28864
90% Confidence Interval of the Difference	Lower	2.52861	2.53112
	Upper	11.67690	11.68290

Derived from Table 3, the students' vocabulary achievement shows a statistically significant difference between students who are taught by using STAD and MSTAD technique. It is revealed from t-value which is higher than t-table with the significance level of less than 0,05 ($3,112 > 1,671$) ($0,003 < 0,05$). As a result, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted.

Based on the result above, it could be said that MSTAD was likely successful to enhance students' vocabulary achievement. In other words, MSTAD can be used as a technique for teaching English vocabulary and increase the students' achievement in vocabulary especially in this research are noun, adjective verb and adverb. The increase can be seen from the average score between the pretest and posttest. Through MSTAD, the students understood that they had equal opportunity to learn because they rewarded for doing better than they have in the past which means the

achievement in vocabulary. They were happy because each member of the group had a chance to present their ideas. They were interested because it helped them to increase their confidence.

The finding of this present study supported a number of previous studies such as Ilyas (2017) who found that the result of the research showed there were improvements. It could be seen from the mean score of experimental group is 52.59 in the pre-test and became 71.66 in the post-test and control group was 51.52 in pre-test and became 55.81 in post-test. From the result of the mean score from each group, it can be seen that there is a significant improvement from the experimental group. Consequently, the use of STAD is more effective to increase vocabulary mastery for junior high school students than the conventional teaching technique. And the evidence indicates that teaching English vocabulary by using STAD has a significant positive effect and become a suitable technique for increasing students' vocabulary mastery.

In addition, this research finding was also in line with Ishtiaq, et al. (2017). In that research, the experimental group was taught with Student Teams Achievement Divisions (STAD) strategy whereas the control group was taught with traditional whole-class instruction method. The treatment was carried out for two weeks. At the end of the experiment, the same vocabulary test was re-administered as a post-test. Independent samples t-test was used to analyze the data using SPSS 21. Results showed that there was a significant difference between the experimental group and the control group in favor of the experimental group ($p = 0.002 < 0.05$).

Moreover, Shafiee and Khavaran (2017) investigated the effect of vocabulary learning on vocabulary achievement of reflective/impulsive Iranian EFL learners.

The statistical analysis of the results showed that the experimental groups with STAD technique performed better on vocabulary achievement posttest than the control group with conventional method applied.

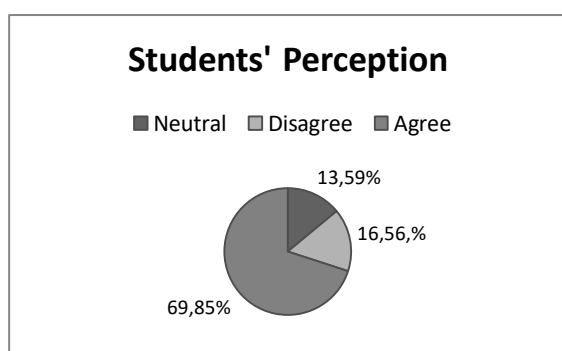
The difference between STAD and MSTAD was in the steps. In regular STAD, the teacher teaches and explains a lesson to the students and then they work in teams and ensure that they have mastered the lesson. As we know that STAD technique is based on the idea of having students work in cooperative learning teams to learn academic objectives. However, this technique emphasizes the use of teacher-centered in the teaching stage that was contrary with the principle of cooperative learning. In MSTAD, the researcher let the students to discuss the lesson by themselves, they have to discuss the lesson with the group and they have a responsibility to make sure that their teammates understand the lesson. The researcher only monitors the teams: observing, listening, and intervening when it is necessary.

As a result, by applying MSTAD technique the researcher is not too dominant in the class and students can be involved in cooperative and interesting activities. Moreover, in STAD technique, the researcher only gives opportunities to some of the representatives of the group to report their group work in front of the class. However, in MSTAD, the researcher asks all of the members of group to have the presentation of their work, then begins the question and answer session to optimize the students' outcome.

In brief, the finding of the present research confirmed the finding of the previous researches that MSTAD offered some benefits for students in learning vocabulary.

2. Students' perceptions towards MSTAD technique.

Furthermore, to answer the second research question, the researcher obtained the data from the students' perception questionnaire about the implementation of MSTAD. There were 32 students as the subject of this research who also filled the questionnaire given by the researcher. The questionnaire consisted of 20 items and modified from Wichadee (2005) which related to cooperative learning. The data gathered from close ended questions. There were 5 items using Likert Scale in which 'strongly agree' was valued 4, whereas 'strongly disagree' was valued 1. The result is shown in the following graph.



Graph 1. Students' General Perception towards MSTAD.

The graph shows that general students perceived positively towards MSTAD when they learned vocabulary. It is proven by 69,85% of the students giving their positive agreement towards MSTAD technique, 16,56% of the students giving negative agreement towards MSTAD technique and 13,59% of the students were neutral.

From the interview, the researcher also found that during the treatments, the students were enthusiastic to follow the group discussion. It was because when the students had to present the result of their group work, they were happy because each member of the group had a chance to

present their ideas. They were interested because it helped them to increase their confidence.

In the implementation of MSTAD, all of the students were involved actively. They were interested to be the first speaker in the group result presentation, because the first group who shared their result would get an additional score. The group which got the highest scores would get rewards from the researcher. Moreover, they told that MSTAD helped them to comprehend the new vocabularies and also added some new English vocabularies.

The second perception towards the implementation of MSTAD was 16,56% of the students gave no opinion towards the implementation of MSTAD. Because they thought that this technique had strength and weakness. They like this technique because they can work together with other friend in a group, but not all group members did the discussion seriously. Some of them did not do the task. They only make noise.

The third perception towards the implementation of MSTAD was 13,59% of the students gave negative opinion towards the implementation of MSTAD. Some students did not enjoy to study in the classroom. They did not like this technique because they felt that this technique was not efficient. The class would be so crowded. They could not think if the class was so crowded.

Regarding the interview with the students, it can be inferred that there is a correlation between the data obtained from the questionnaire and the data obtained from the interview with the students. From the interview, we found that MSTAD could make students easier in learning vocabulary. And also, the overall results of questionnaire also demonstrated that the respondents generally agreed that the

implementation of MSTAD in learning vocabulary is useful. Thus, it could be stated that students have good perception toward MSTAD. To sum up, both of interview and questionnaire results indicated that students' perception toward the implementation of modified STAD was positive.

In summary, after discussing the notions of the two research questions above, it is ascertained that MSTAD is one of the advocated ways to enhance the students' vocabulary achievement. This study believes that the better results of vocabulary achievement and perception come from MSTAD technique. By the use of MSTAD, it could provide the way to ameliorate the study of English as a foreign language since it is the important work of education to enhance the students' motivations and make their English achievement better.

CONCLUSIONS AND SUGGESTIONS

Based on the data analysis, the researcher concluded that MSTAD technique has benefits for students in learning vocabulary since it can enhance students' vocabulary achievement better than the regular STAD. It might be caused by two reasons, first the step which assign students to read and discuss the lessons with the group, and they have a responsibility to make sure that their teammates understand the lesson. The researcher only monitors the teams: observing, listening, and intervening when it is necessary. As a result, by applying MSTAD technique the researcher is not too dominant in the class and students can be involved in cooperative and interesting activities. Second, the step which provide a chance for students to work in group and each member of the group had the same responsibilities in delivering the result of the group work.

Based on the result of the interview, it can be seen that MSTAD could make students easier in learning vocabulary. Meanwhile, the overall results of questionnaire also demonstrated that the respondents generally agreed that MSTAD is beneficial in learning vocabulary. To sum up, both of interview and questionnaire results indicated that students' perception toward the implementation of modified STAD was positive. The reason why 69,85% of the students agreed that modified STAD has positive impact because since this is new technique for them, at the same time the process of teaching and learning ran in group class discussion make the lesson easier to do, so they enjoy the process and feel fun.

In applying this technique, it is suggested for teachers to concern in improving each aspect in vocabulary especially those which are difficult for students to master. Since MSTAD technique requires students to be actively involved in vocabulary practice, the teachers are supposed to make classroom atmosphere more comfortable and enjoyable to encourage students to participate in the class. Moreover, the English teachers is suggested to control the teaching learning process well since the biggest problem for the teacher when using this technique may be the crowded classrooms and time consuming.

As this study is limited to investigate the students' perception about MSTAD, more research should carry out study by adding other instrument to investigate the implementation of this technique itself in order to find out whether or not the implementation runs well.

REFERENCES

- Cameron, L. (2001). *Teaching Languages to Young Learners*. Cambridge: Cambridge University Press.
- Hayuningtyas, Huzairin and Kadaryanto B. (2013). The Implementation of Student Team Achievement Division (STAD) Technique in Teaching Reading. *Unila Journal of English Teaching (U-JET)*. Vol. 2, No.9 (2013).
- Ilyas, M. (2017). STAD : A Suitable Technique for Increasing Students' Vocabulary Achievement. *Journal of English for Academic*. Vol 4, No 1, Februari 2017
- Ishtiaq, M., Ali, Z., and Salem, M. (2017). An Experimental Study of the Effect of Student Teams Achievement Divisions (STAD) on Vocabulary Learning of EFL Adult Learners. *Arab World English Journal*, 8 (3). DOI: <https://dx.doi.org/10.24093/awej/vol8no3.23>.
- Jolliffe, W. (2007). *Cooperative Learning in the Classroom: Putting It Into Practice*. London: SAGE Publication Company.
- Oljira, D. (2017). A Study Problems of Vocabulary Teaching Techniques English Teachers Use in Holeta Primary Schools: Grade Seven in Focus. *International Journal of Science and Research (IJSR)*. ISSN (Online): 2319-7064.
- Schmitt, N. (2000). *Vocabulary in Language Teaching*. New York: Cambridge University Press.
- Scrivener, J. (1998). *Learning Teaching*. Oxford: Macmillan Heineman
- Shafiee and Khavaran. (2017). Effects of Cooperative Learning on Vocabulary Achievement of Reflective/Impulsive Iranian EFL Learners. *International Journal of Foreign Language Teaching and Research*. Volume 5, Issue 17, Spring 2017.
- Slavin, R.E.(1998) .*Cooperative Learning: Theory, Research and Practice*. Massachusetts: Allyn&Bacon.
- Rakhman and Syatroh.(2015).The Analysis Of Students' Team Achievement Divisions (Stad) Used In Learning Practice Of Translating And Interpreting. *Eltin Journal*, Vol.3, Np. 2: 72-84.
- Van Wyk, M.M. (2012). The Effects of the STAD-Cooperative Learning Method on Student Achievement, Attitude and Motivation in Economics Education. *Journal of Social Science*, 33(2), 261-270.
- Wichadee, S. (2005). The Effects of Cooperative Learning on English Reading Skills and Attitudes of The First-year Students at Bangkok University. *BU Academic Review*, 4(2), 22–31.