



Does Cooperative Learning Bring Positive Effect on Students' Vocabulary Achievement?

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Abstract

This study wanted to investigate the effect of cooperative learning on students' vocabulary achievement. The subject of this study is 54 students of grade seven in one of public junior high schools in East Java Indonesia. The researcher divided the subjects into two groups; experimental and control groups which consisted of 27 students. The instruments of this study were used tests, and observation. The tests consisted of pre and posttest which delivered in the first and the last meeting. The observation was done to observe the situation of students in the classroom during the implementation of cooperative learning and conventional method. In this study, the researcher used SPSS 24 to analyze the data. The result of this study revealed that the use of cooperative learning and conventional method significantly improve students' vocabulary achievement. It also gave positive effects for the students such as; increasing students' motivation and cooperation and decreasing their nervous. The result also showed that there was no significant different between conventional method and cooperative learning on students' vocabulary achievement.

Key words: cooperative learning, conventional method, vocabulary, achievement.

Introduction

Vocabulary is a core language proficiency aspect and the basis for mastering listening, speaking, reading and writing (Richard & Renandya, 2002). It becomes the top priority in language learning and teaching (Hulstijn & Laufer, 2001; Kim, 2008; Peters, 2007; Pichette, De Serres, & Lafontaine, 2011). By

mastering vocabulary, the learners will be easier to dominate other skills; listening, speaking, reading and writing. Therefore, good strategy in teaching vocabulary is needed to rich it.

Cooperative learning is one of good alternative strategies to improve students' English. The implementation of cooperative learning in teaching English influences many aspects for the english foreignn langage learners (Motaiei, 2014). He claims that cooperative learning gives effective progress for students' vocabulary and grammar. Similarly, Bilen & Tavail, (2015) report that cooperative learning provide possitive attitude towards students' reading comprehension.

Cooperative learning can be defined as an instructional strategy that involves learners in small group that work together to optimize their learning (Johnson, Johnson, & Stanne, 2000) and understanding the subject's content (Slavin, 1990). The main point of cooperative learning is the students' interaction in doing work together to reach the goal. Student-center learning becomes the characteristic of this strategy. Because of the successful of it in language teaching, many studies have done by many researchers in recent years (Bilen & Tavail, 2015; Motaiei, 2014; Shafiee & Khavaran, 2017).

Recently, Anwer, Tatlah, & Butt (2018) avowed that cooperative learning help the students to improve their English tenses. They conducted an experimental study to find the effect of cooperative learning on grade nine students in English in Pakistan. The findings of their study explained that the experimental groups significantly performed better than control group. They concluded that the implementation of cooperative learning affect students' English tenses positively.

As far as the effectiveness of cooperative learning, Motaiei (2014) investigate the effect of cooperative learning in general English achievement. The subjects were 80 Kermanshah Islamic Azad university students in Iran. The result of his investigation revealed that cooperative learning increase students' reading comprehension, grammar and vocabulary performed.

Another study, Shafiee & Khavaran (2017) report that cooperative learning (student team achievement divisions/ STAD) improves students' vocabulary performed. They did experimental research to examine the effect of cooperative learning on vocabulary achievement of reflective Iranian English foreign language learners. The subjects are 130 students of Fajr institute in Dehdasht, Kohkiloyeh and Boyer Ahmad Province, Iran. The findings of their research described that the use of student team achievement divisions significantly improve students' vocabulary achievement. This indicated that the use of cooperative learning has proved potent in learning vocabulary.

Various studies about cooperative learning showed that the use of cooperative learning in teaching English is able to improve students' English achievement (Ghaith, 2004; Ghorbani & Nezamoshari'e, 2012; Nejad & Keshavarzi, 2015; Gömleksi' z, 2007; Pan & Wu, 2013; Rahvard, 2010;

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Dabaghmanesh, Zamanian, & Bagheri, 2013). However, not all teachers implemented it as teaching instruction in the classroom. As an example; English teachers in one of public school in East Java still use conventional instruction in teaching English. It influences the classroom environment to be less interaction. The students have low motivation and their creativity is not developed.

Research Question & Hypothesis

- Is there any significant effect of cooperative learning on the students' vocabulary achievement?
- Is there any significant difference between cooperative and conventional learning?

Hypothesis

First hypothesis:

- H1: There is significant effect of cooperative learning on the students' vocabulary achievement.
- H0: There is no significant effect of cooperative learning on the students' vocabulary achievement.

Second hypothesis:

- H1: There is significant difference between cooperative and conventional learning on the students' vocabulary achievement.
- H0: There is no significant difference between cooperative and conventional learning on the students' vocabulary achievement.

Research Method

In this study, the researchers used experimental design. The researchers divided the students into experimental and control groups. The experimental group applied cooperative learning in the process of teaching learning, while the control group applied conventional method.

The research subjects of this study were 54 students of grade seven in one of public junior high schools in East Java Indonesia. The researcher used cluster random sampling to determine the subjects. The researcher divided them into two groups; experimental and control group. The experimental group consisted of 27 students, while the control group consisted of 27 students.

In this study, the researcher used tests, and observation as instruments. The tests are delivered twice; in the beginning (pre-test) and in the last meeting (post-test). The pre-test was done in the beginning meeting before the researcher applied cooperative learning to the experimental group, while the post-test was done by them in the last meeting after the experimental group applied the cooperative learning. The tests are delivered to both of those groups. For the observation, the researchers did it during the implementation of

cooperative learning in the experimental class (meeting 2 until 5). The researcher observed the condition and situation in the classroom during the implementation and make note about them.

Procedure

This study was conducted in four meetings period. The classifications of the implementation of cooperative learning to one experimental group were defined in table 2:

Table 2. The Summary of Cooperative Learning

Meeting	Experimental group
Meeting 1 Introduction	<ol style="list-style-type: none"> 1. Students will introduce to the cooperative learning to enhance their mastery vocabulary. 2. Pre-Test
Meeting 2 to 5 Cooperative Learning Implementation	Inside Class <ol style="list-style-type: none"> 1. The teacher delivers the materials in the classroom. 2. The teacher divide the students into 6 groups consist of 4-5 students. 3. The teacher implements cooperative learning. 4. The students discuss it with their group and present the result in the classroom. 5. The teacher gives feedback.
Meeting 6	Post-Test

For control group, the implementation of conventional group was explained in table 3:

Table 3. The Summary of Conventional Instruction

Meeting	Control group
Meeting 1 Introduction	<ol style="list-style-type: none"> 1. Pre-Test
Meeting 2 to 5 Cooperative Learning Implementation	Inside Class <ol style="list-style-type: none"> 1. The teacher delivers the materials in the classroom. 2. The teacher asked the students to do discussion with their friend (peer discussion). 3. The students discuss it with their friends and present the result of discussion in the classroom. 4. The teacher gives feedback.
Meeting 6	Post-Test

Data Analysis

In analyzing the data the researcher uses SPSS. Mean calculation and independent t-test will be processed by using SPSS 24. After that the researcher compared and interpreted between the result of tests and observation. Finally, the researcher provided a conclusion from them.

Findings and Discussion

Findings

Before answering the first research question, the researcher needed to analyze the data normality and the homogenous of both groups. The researcher used descriptive statistic to organize it. The result of pre-test of cooperative learning and the control groups were presented in Table 3.

Table 3. The pre-test result of experimental and control groups
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Dev.	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Experimental	27	30	80	67,41	11,959	-1,205	,448	2,222	,872
Control	27	50	100	67,04	11,373	,977	,448	1,112	,872
Valid (listwise)	N 27								

Table 3 showed the mean of experimental and control group in pretest. From the table above reported that the pretest means of experimental and control groups were 67,407 and 67,037. The score of the means indicated that no significance different between the experimental and control group. It implied that both groups are homogenous. The table 3 also showed the result of Skewness and Kurtosis. They defined that the degree of Skewness and Kurtosis were between -2 and +2 which showed that the distribution of the data of both group were normal.

From the observation, the researcher found that the implementation of cooperative learning in teaching learning process made the students feel happy. Some students stated this:

A: "I am so happy. I can learn with you again."

B: "Yes! We learn in group again!"

C: "Mom, next meeting we learn in groups again!"

Some of the students indicated that by applying cooperative learning helped them to interact with their friends and understand the material. Some students said this:

D: "I like learn together with my friends. I can ask to my friend, when I don't know the meaning."

E: "I enjoy the learning. I can ask to my group or other group if I don't understand about the material".

F: "I am shy, if I ask my teacher. It is easy for me if I ask my friends when I do not understand."

Another positive effect of cooperative learning was developing students' cooperation in finishing their assignment. Some students told:

G: *"Ok, Let's do this exercise! You and Y open the dictionary and mentioned the words and the meaning."*

G: *"Do you find the word?"*

X: *"Yes, I find it. The word is "accompany". It means "menemani"."*

G: *"How about you?"*

Y: *"Not yet!"*

Y: *"I found the word! It is "learn". It's "mempelajari"."*

Some positive aspects also researcher wrote during the implementation of cooperative learning. The researcher captured that some students who never ask to the English teacher were more active. They were more confident in asking questions to their teacher in the form of the group than individual. Another positive aspect that the researcher got was the students' enthusiasm. The students were motivated to learn English during the implementation of cooperative learning because they learn in a group. Learning in a group assisted them to support each other not only in the context of doing the assignment or exercise but also in decreasing their nervous or other difficulties (unconfident, inactive, shy and afraid in doing mistake).

On the other hand, a student indicated negative aspect of cooperative learning. She said:

K: *"I can't learn together with him. He makes me feel bad."*

From the atmosphere in classroom during teaching learning process, the researcher noted that some of negative effects appeared. Some students did not contribute to their group to do the exercises that given by the English teacher. They only draped their work to another student who was considered as the smartest students in their group. This situation made this group was not run well. The researcher also discovered that there was a gap in a group for the introvert students. They felt difficult to do the cooperation with their group and more silent than the others.

Next, the researcher wanted to investigate whether there was significant effect found in the process of teaching learning using cooperative learning on the students' vocabulary achievement. To address the first objective a set of vocabulary tests were administered, followed by statistical calculation. The researcher used independent sample test to analyze the result post-test of both groups (Table 4).

Table 4. The post-test re result of experimental and control groups
Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Posttest	Equal variances assumed	,750	,391	3,327	52	,002	8,333	2,505	3,307	13,359
	Equal variances not assumed			3,327	50,946	,002	8,333	2,505	3,305	13,362

From table 4 described that P-value of both groups were 0,002 ($p < 0,005$). It revealed that the implementation of cooperative learning and conventional method was significance improvement on students' vocabulary. Both methods gave positive effect on students' vocabulary. It meant that the first hypothesis was accepted and the first null hypothesis was rejected.

The next, the researcher investigated whether there was significant difference between cooperative and conventional learning on the students' vocabulary achievement. The result of significance 2-tailed (0,002), mean difference (8,333) and standard error difference (2,505) of both groups were similar. Those result indicated that there was no significant difference between the implementation of cooperative and conventional learning on the students' vocabulary achievement. It suggested that that the second null hypothesis was accepted.

Discussion

According to the analyses of the data above, cooperative learning had significant effect on the students' vocabulary achievement. The statistical significance of the effect size of pre and post-test clearly proves the superiority of cooperative learning in improving students' vocabulary achievement. This was in line with Shafiee & Khavaran (2017) and Motaei (2014) studies. They explained that the implementation of cooperative learning in teaching English, improve students' vocabulary. Moreover, it increases students' grammar and reading comprehension performed (Bilen & Tavil, 2015; Motaei, 2014).

The implementation of cooperative learning also provides positive

influences for the students in the classroom such as; increasing students' motivation, intensifying students' cooperation and competition, and increasing students' achievement. This finding is congruence with Melihan & Sirri (2011); Shimazoe & Aldrich (2010), who reported that cooperative learning provides positive effect on students' academic achievement. Moreover, cooperative learning aids the learners in intensifying their classroom participation, self-confidence, cooperation, competition and motivation (Goudas & Magotsiou, 2009; Zakaria, Solfitri, Daud, & Abidin, 2013). However, some negative aspects also found by the researcher during the implementation of cooperative learning. A student was not comfortable with her group because both of them have a problem before. Other negative effects are some students do not give contribution do the exercises that given by the English teacher with their group and there was a gap in a group for the introvert students. They felt difficult to do the cooperation with their group and more silent than the others.

The implementation of conventional method also improved students' vocabulary achievement. The result of p-value of conventional method was similar with cooperative learning. It was in line with Gladwin & Stepp-Greany (2008) and Zoghi, Mustapha, & Maasum (2010). They reported that there was no significant difference between the implementation of cooperative learning and conventional method. It contrasted with some studies which declared that the utilization of cooperative learning is more effective than conventional instruction for improving students' achievement (Gillies, 2006; Hennessy & Evans, 2006; Johnson et al., 2000; Bukunola & Idowu, 2012).

Conclusion

Based on the findings, the implementation of cooperative learning and conventional method in teaching English significantly affects student's vocabulary achievement. The cooperative learning method gave positive effect on students' motivation, interaction, cooperation and enthusiasm. However, it had negative effect such as: students' gap and students' autonomy. The findings also revealed that there was no significant different between conventional and cooperative learning on students' vocabulary achievement.

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