



## *The Effect of “Numbered Heads Together” vs “Three Minutes Review” on Students’ Vocabulary Mastery*

**Chubbi Millatina Rokhuma**

Jurusan Tadris Bahasa Inggris,  
FTIK – IAIN Pekalongan

### Info Artikel

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### Abstrak

Tujuan dari penelitian ini adalah untuk menginvestigasi pengaruh teknik *Numbered Heads Together* dan *Three Minutes Review* terhadap penguasaan kosa kata siswa. Penelitian ini menggunakan pendekatan kuantitatif dengan *factorial design*. Penelitian ini juga melibatkan para siswa kelas 7 SMP Islam Simbang Wetan Pekalongan yang dipilih melalui teknik *purposive sampling*. Kelas 7A dianggap sebagai grup eksperimen, sedangkan kelas 7B dianggap sebagai grup kontrol. Dalam hal ini, grup eksperimen diajar dengan menggunakan *Numbered Heads Together*, sedangkan grup kontrol diajar dengan menggunakan *Three Minutes Review*. Metode pengumpulan data yang digunakan dalam penelitian ini adalah observasi, angket, dan tes. Berdasarkan perhitungan hasil penelitian, diperoleh bahwa  $F_{tabel} = 4.26$  dan  $F_{hitung} = 17.39$ . Karena  $F_{hitung} > F_{tabel}$ , jadi  $H_0$  ditolak dan  $H_a$  diterima. Dapat disimpulkan bahwa ada perbedaan yang signifikan antara nilai post tes dari grup eksperimen dan pos tes dari grup control. Dengan kata lain, *Numbered Heads Together* lebih efektif dari pada *Three Minutes Review* dalam pengajaran kosa kata untuk anak-anak yang berkemampuan tinggi dan rendah.

**Kata Kunci:** *numbered heads together, three minutes review, penguasaan kosa kata*

### Abstract

*The aim of this study is to investigate the effect of Numbered Heads Together and Three Minutes Review techniques on students’ vocabulary mastery. It used quantitative approach with factorial design. It involved the seventh graders of Simbang Wetan Islamic Junior High School Pekalongan that were chosen through purposive sampling. Class 7A that consisted of 25 students was considered as the experimental group, and they were taught by using Numbered Heads Together. On the other hand, class 7B that consisted of 27 students was considered as the control group, and they were taught by using Three Minutes Review. The methods of data collection of this study were observation, questionnaire, and test. Based on the calculation of the research result, it showed that  $F_{table} = 4.26$  and  $F_{count} = 17.39$ . Because  $F_{count} > F_{table}$ , so  $H_0$  is rejected and  $H_a$  is accepted. It can be concluded that there is significant difference between the post-test score of experimental group and control group. In other words, Numbered Heads Together is more effective than Three Minutes Review in teaching vocabulary for high and low achievers.*

**Keywords:** *numbered heads together, three minutes review, vocabulary mastery*

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✉ Alamat korespondensi:

Jurusan Tadris Bahasa Inggris FTIK IAIN Pekalongan,  
Jl. Kusumabangsa No. 9 Pekalongan. Kode pos 51114

Email Penulis:

[millatina2014@yahoo.com](mailto:millatina2014@yahoo.com)

## INTRODUCTION

Vocabulary is one of the most important things in language learning. It is group of words in a language that have meaning. According to Schmitt (2000:157), in learning a language, students are supposed to acquire 2,000 words for conversational speaking and 3,000 words for understanding a text. They should be able to master a lot of vocabularies as the first preparation to achieve the basic competence as vocabulary knowledge is the single most important factor contributing to reading comprehension (Laflamme, in Preszler, 2006: 4). It proves that vocabulary becomes something important for language learners in communication. Hence, it is necessary for the English teachers to give exact teaching techniques in teaching vocabulary, so that the students can master English vocabulary well.

In fact, there are some problems that are found in the teaching and learning vocabulary. Based on my experience after teaching for two years in Simbang Wetan Islamic Junior High School, the students found some difficulties in mastering English vocabularies. Most of the students said that it is caused by the different pronunciation and spelling between Bahasa and English words. It is in tune with Thornburry (2002:27) that pronunciation, spelling, length and complexity are some factors that make vocabulary hard to learn.

Another problem comes from the bad condition of the students. They like to group themselves based on their previous elementary school. Students who came from the same elementary school always group themselves and reluctant to communicate with others who came from different school. Therefore, there is no togetherness and solidarity between them.

Based on the condition above, it is necessary to apply certain technique to help the students in mastering English vocabulary. To realize it, there are some

strategies that can be used to help students in mastering vocabulary. One of the strategies that can be used in the teaching and learning vocabulary process is by implementing cooperative learning method including *Numbered Heads Together* and *Three Minutes Review*, which also can decrease the learning gap between the students (Kagan, 1994).

“Cooperative Learning is part of a group of teaching/learning techniques where students interact with each other to acquire and practice the elements of a subject matter and to meet common learning goals” (Macpherson, 2000:1). Moreover, Jolliffe (2007: 3) states “Cooperative learning requires pupils to work together in small groups to support each other to improve their own learning and that of others”. It means that cooperative learning will make students to think and solve the problem together so that they will also learn how to appreciate others’ opinion.

According to Kagan (2003) numbered heads together is a learning technique in which each student had a number and all those students on the team put their heads together to come up with their best answer. In addition, Stone & Kagan said as cited in Bayat (2004: 15), *Numbered Heads Together* is a cooperative learning technique in which students number off in their groups with each student having a different number. The teacher asks a question to be discussed by the group members together. The teacher calls out a number, and each student who has that number from each group stands up. The teacher chooses one of them to answer the question. By having students work together in a group, this strategy encourage each member knows the answer to the questions asked by the teacher. Because no one knows which number will be called, all team members must be ready to answer.

While Three Minutes Review, according to Arends as quoted in Pattanapichet (2012: 64) is one of cooperative learning techniques in which teachers give each groups a chance to review what has been taught, ask and answer questions for clarification in three minutes during a lecture or discussion. It is in a line with Baliya (2013:298) who said that Three Minutes Review is a technique in which teacher stops any time during a lecture or discussion and give team members three minutes to review what has been said, ask clarifying questions or answer questions. In this case, the students are divided into some groups and encouraged to do pay attention to the teachers’ explanation, so that they can give the review of the lesson and also ask and answer questions for clarification.

From the explanation above, it can be said that both of Numbered Heads Together and Three Minutes Review belong to cooperative learning techniques which are supposed to be able to decrease the learning gaps among the students, so that they can learn together and help one another when they find difficulties in the learning process. However, they are different in some cases such as the techniques themselves. Numbered Heads Together encourages each member of the groups to be ready in answering the teacher’s question, but Three Minutes Review does not; the students do not have any chance to prepare themselves to answer the questions delivered by the teacher.

In short, cooperative learning is very useful for integrating and reviewing learning material. It encourages students to learn from one another, as well as from the teacher; instead the teacher acts as a facilitator in which he/ she monitors the groups with offering support and interacts with the students. Therefore, this research aims to compare the effectiveness of those cooperative learning techniques including Numbered Heads Together and Three

Minutes Review techniques especially on students’ vocabulary mastery.

## RESEARCH METHOD

This study used quantitative approach which is reported through statistics and it also used factorial design because it has two independent variables.

The population of this study is the seventh graders of Simbang Wetan Islamic Junior High School Pekalongan which consists of 101 students; 7A which consists of 25 students, 7B which consists of 27 students, 7C which consists of 23 students, and 7D which consists of 24 students. However, only two classes that were taken as the sample of this study; they are class 7A and 7B. They were chosen because they have similar characteristics in which they have big curiosity in learning English. Moreover, the average score of those two classes are closely the same.

In collecting the data, the researcher used three instruments; they were observation, questionnaires, and test. Observation was used to see the events happen in a classroom such as the amount of teacher and student talk, the amount of off-task conversation, and the amount of group work. The questionnaire was used to see the students’ perception about the teaching and learning employed by the teacher, while test is used to measure the students’ vocabulary mastery.

The collected data were analyzed through three steps. First, analyzing the try-out test. In analyzing the try out test, there were some analyses done, namely: validity, reliability, item difficulty, and discriminating power. Second, analyzing pre-test and post-test. The analysis of pre test and post-test was conducted in order to know the normality and homogeneity of the data. Finally, testing the hypothesis. To test the hypothesis, the researcher used ANOVA (*Analysis of Variance*). It is used when researchers desire to find out whether there

are significant differences between the means of more than two groups” (Fraenkel & Wallen, 2008: 232). This analysis was used in order to determine whether the differences between means scores are statistically significant (Gall, 2003: 405). In this case, ANOVA was used to answer the problem that state whether there was any significant difference between the effectiveness of *Numbered Heads Together* and *Three Minutes Review* techniques on the high and low achievers’ vocabulary mastery or not.

## RESULT AND DISCUSSION

### Result

After collecting and analyzing the data, there are some findings of this study.

Based on the calculation of normality test, it can be seen that the data on pretest of the experimental group is that that  $\chi^2_{table}=11.1$  and  $\chi^2_{count} = 7.77$  at the level significant  $\alpha = 5\%$  ( $7.77 \geq 11.1$ ). On the other hand the data in the pretest from the control group is that that  $\chi^2_{table}=11.1$  and  $\chi^2_{count} = 3.91$  at the level significant  $\alpha = 5\%$  ( $3.91 \geq 11.1$ ). It indicates that  $H_0$  is accepted. Based on the result above, it can be concluded that the data on pre test in both of experimental and control group were accounted as normal distributional data. While based on the data on post test of the experimental group is that that  $\chi^2_{table}=11.1$  and  $\chi^2_{count} = 9.95$  at the level

significant  $\alpha = 5\%$  ( $9.95 \geq 11.1$ ). On the other hand the data in the post test from the control group is that that  $\chi^2_{table}=11.1$  and  $\chi^2_{count} = 4.39$  at the level significant  $\alpha = 5\%$  ( $3.91 \geq 11.1$ ). It indicates that  $H_0$  is accepted. Based on the result above, it can be concluded that the data on post test in both of experimental and control group were accounted as normal distributional data.

After calculating the normality of the data, the researcher tested the homogeneity of the data. Based on the computation of homogeneity test of pretest, it was obtained that  $F_{table} = 3.12$  and  $F_{count} = 1.106$  at the level significant  $\alpha = 5\%$  ( $1.106 < 3.12$ ). It can be concluded that the data on pre test of the experimental group and control group have homogeneous variance. While based on the computation of homogeneity test post test, it was obtained that  $F_{table} = 3.12$  and  $F_{count} = 2.108$  at the level significant  $\alpha = 5\%$  ( $2.108 < 3.12$ ). It can be concluded that the data on post test of the experimental group and control group have homogeneous variance. As stated before, that the use of *Numbered Heads Together* and *Three Minutes Review* here was to evaluate the students’ vocabulary mastery after the treatment given.

Table 1. Result for High and Low Achievers Treated With Numbered Heads Together

High / Low	Source	Df	Sum of Squares	Mean Squares	Fcount (Fc)	Ftable (Ft) 5 %	Description
High	Total		2987.5	-			$F_c > F_t$ , so
	Between	2-1=1	2444.6	2444.6	54.04	4.75	$H_0$ is rejected
	Inter	14-2=12	542.9	45.24			$H_a$ is accepted
Low	Total		7187.5	-			$F_c > F_t$ , so:
	Between	2-1=1	6644.6	6644.6	146.9	4.75	$H_0$ is rejected
	Inter	14-2=12	542.9	45.24			$H_a$ is accepted

Based on the calculation of pre-test and post-test score of the experimental group by using one-way, it was obtained:

For the high achievers of the experimental group, with  $\alpha = 5\%$  level of significance and  $df = 1:12$ , it was obtained that  $F_{table} = 4.75$ . Based on the calculation, it was obtained that  $F_{count} = 54.04$ . If  $F_{count} < F_{table}$ , it means that  $H_0$  is accepted. However, because in this research  $F_{count} > t_{table}$ , it means that  $H_0$  is rejected and  $H_a$  is accepted. Therefore, it means that there is any significant difference between pre-test and post-test score of the experimental group high achievers.

For the low achievers of the experimental group, with  $\alpha = 5\%$  level of significance and  $df = 1:12$ , it was obtained that  $F_{table} = 4.75$ . Based on the calculation, it was obtained that  $F_{count} = 146.9$ . If  $F_{count} < F_{table}$ , it means that  $H_0$  is accepted. However, because in this research  $F_{count} > t_{table}$ , it means that  $H_0$  is rejected and  $H_a$  is accepted. Therefore, it means that there is any significant difference between pre-test and post-test score of the experimental group low achievers.

Based on the calculation by using t-test, it was obtained that:

For  $\alpha = 5\%$  and  $df = (7 + 7 - 2) = 12$  it was obtained that  $t_{table}$  is  $-2.18$ . Based on the calculation, it was obtained that  $t_{count}$  is  $-7.349$ . In this case,  $H_0$  is accepted if  $-t_{count} > -t_{table}$ . However, because in this research  $-t_{count} < -t_{table}$ , so  $H_0$  is rejected and  $H_a$  is accepted. It means that the pre-test score of the experimental group high achievers is less than the post-test. It can be concluded that Numbered Heads Together is effective to be used for the high achievers.

For  $\alpha = 5\%$  and  $df = (7 + 7 - 2) = 12$  it was obtained that  $t_{table}$  is  $-2.18$ . Based on the calculation, it was obtained that  $t_{count}$  is  $-12.12$ . In this case,  $H_0$  is accepted if  $-t_{count} > -t_{table}$ . However, because in this research  $-t_{count} < -t_{table}$ , so  $H_0$  is rejected and  $H_a$  is accepted. It means that the pre-test score of the experimental group low achievers is less than the post-test. It can be concluded that Numbered Heads Together is effective to be used for the low achievers.

**Table 2. Result for High and Low Achievers Treated With Three Minutes Review**

High / Low	Source	Df	Sum of Squares	Mean Squares	Fcount (Fc)	Ftable (Ft) 5 %	Description
High	Total		2323.2	-			$F_c > F_t$ , so
	Between	$2-1=1$	944.6	944.6	8.22	4.75	$H_0$ is rejected
	Inter	$14-2=12$	1378.6	114.9			$H_a$ is accepted
Low	Total		3171.4	-			$F_c > F_t$ , so:
	Between	$2-1=1$	2578.6	2578.6	52.19	4.75	$H_0$ is rejected
	Inter	$14-2=12$	592.6	49.40			$H_a$ is accepted

Based on the calculation of pre-test and post-test score of the control group by using one-way, it was obtained:

For the high achievers, with  $\alpha = 5\%$  level of significance and  $df = 1:12$ , it was obtained that  $F_{table} = 4.75$ . Based on the calculation, it was obtained that  $F_{count} = 8.22$ . If  $F_{count} < F_{table}$ , it means that  $H_0$  is

accepted. However, because in this research  $F_{count} > F_{table}$ , it means that  $H_0$  is rejected and  $H_a$  is accepted. Therefore, it means that there is any significant difference between pre-test and post-test score of the control group high achievers.

For the low achievers, with  $\alpha = 5\%$  level of significance and  $df = 1:12$ , it was obtained that  $F_{table} = 4.75$ . Based on the

calculation, it was obtained that  $F_{count} = 52.19$ . If  $F_{count} < F_{table}$ , it means that  $H_0$  is accepted. However, because in this research  $F_{count} > t_{table}$ , it means that  $H_0$  is rejected and  $H_a$  is accepted. Therefore, it means that there is any significant difference between pre-test and post-test score of the control group low achievers.

Based on the calculation by using t-test, it was obtained that:

For  $\alpha = 5\%$  and  $df = (7 + 7 - 2) = 12$  it was obtained that  $t_{table}$  is  $-2.18$ . Based on the calculation, it was obtained that  $t_{count}$  is  $-2.868$ . In this case,  $H_0$  is accepted if  $-t_{count} > -t_{table}$ . However, because in this research  $-t_{count} < -t_{table}$ , so  $H_0$  is rejected

and  $H_a$  is accepted. It means that the pre-test score of the control group high achievers is less than the post-test. It can be concluded that Three Minutes Review is effective to be used for the high achievers.

For  $\alpha = 5\%$  and  $df = (7 + 7 - 2) = 12$  it was obtained that  $t_{table}$  is  $-2.18$ . Based on the calculation, it was obtained that  $t_{count}$  is  $-7.22$ . In this case,  $H_0$  is accepted if  $-t_{count} > -t_{table}$ . However, because in this research  $-t_{count} < -t_{table}$ , so  $H_0$  is rejected and  $H_a$  is accepted. It means that the pre-test score of the control group low achievers is less than the post-test. It can be concluded that Three Minutes Review is effective to be used for the low achievers.

**Table 3. Result for High and Low Achievers Treated With Numbered Heads Together and Three Minutes Review**

Variance Source	Df	Sum of Squares	Mean Squares	Fcount (Fc)	Ftable (Ft) 5 %	Description
Between Column (k)	1	1500.89	1500.89	17.39	4.26	$F_c > F_t$ , so $H_{01}$ is rejected $H_{a1}$ is accepted
Between Rows (b)	1	2508.04	2508.04	29.06	4.26	$F_c > F_t$ , so: $H_{02}$ is rejected $H_{a2}$ is accepted
Interaction (k.b)	1	43.75	43.75			
In group	24	2071.43	86.31			
Total	27	6124.11				

Based on the calculation above, it was obtained:

For the calculation of post test score of the experimental and control group, with  $\alpha = 5\%$  level of significance and  $df = 1:24$ , it was obtained that  $F_{table} = 4.26$ . Based on the calculation, it was obtained that  $F_{count} = 17.39$ . If  $F_{count} < F_{table}$ , it means that  $H_0$  is accepted. However, because in this research  $F_{count} > t_{table}$ , it means that  $H_0$  is rejected and  $H_a$  is accepted. Therefore, it means that there is any significant difference between post-test score of the experimental and control group.

For the calculation of the experimental and control group high and low achievers, with  $\alpha = 5\%$  level of

significance and  $df = 1:24$ , it was obtained that  $F_{table} = 4.26$ . Based on the calculation, it was obtained that  $F_{count} = 29.06$ . If  $F_{count} < F_{table}$ , it means that  $H_0$  is accepted. However, because in this research  $F_{count} > t_{table}$ , it means that  $H_0$  is rejected and  $H_a$  is accepted. Therefore, it means that there is any significant difference between the experimental and control group high achievers and low achievers.

Based on the calculation by using t-test, it was obtained that:

For  $\alpha = 5\%$  and  $df = (7 + 7 - 2) = 12$  it was obtained that  $t_{table}$  is  $2.18$ . Based on the calculation, it was obtained that  $t_{count} = 4.57$ . In this case,  $H_0$  is accepted if  $t_{count} < t_{table}$ . However, because in this research  $t_{count} > t_{table}$ , so  $H_0$  is rejected and  $H_a$  is

accepted. It means that in the experimental group, the post-test score of the high achievers is more than the low achievers’. It can be concluded that Numbered Heads Together is more effective to be used for the high achievers than low achievers.

For  $\alpha = 5\%$  and  $df = (7 + 7 - 2) = 12$  it was obtained that  $t_{table}$  is 2.18. Based on the calculation, it was obtained that  $t_{count} = 3.55$ . In this case,  $H_0$  is accepted if  $t_{count} < t_{table}$ . However, because in this research  $t_{count} > t_{table}$ , so  $H_0$  is rejected and  $H_a$  is accepted. It means that in the control group, the post test score of high achievers is more than the low achievers’. It can be concluded that Three Minutes Review is more effective to be used for the high achievers than low achievers.

For  $\alpha = 5\%$  and  $df = (7 + 7 - 2) = 12$  it was obtained that  $t_{table}$  is 2.18. Based on the calculation, it was obtained that  $t_{count} = 2.18$ . In this case,  $H_0$  is accepted if  $t_{count} \geq t_{table}$ . However, because in this research

$t_{count} = t_{table}$ , so  $H_0$  is accepted and  $H_a$  is rejected. It means that the post-test score of the experimental group high achievers is less than or equal with the post-test score of the control group high achievers. It can be concluded that high achievers are good to be taught either by using Numbered Heads Together or Three Minutes Review.

For  $\alpha = 5\%$  dan  $df = (7 + 7 - 2) = 12$  it was obtained that  $t_{table}$  is = 2.18. Based on the calculation, it was obtained that  $t_{count} = 4.02$ . In this case,  $H_0$  is accepted if  $t_{count} > t_{table}$ . However, because in this research  $t_{count} < t_{table}$ , so  $H_0$  rejected and  $H_a$  is accepted. It means that the post test score of the experimental group low achievers is more than the low achievers of the control group. It can be concluded that low achievers are better to be taught by using Numbered Heads Together than Three Minutes Review.

**Table 4. Result for Interaction between the Teaching Technique (Numbered Heads Together and Three Minutes Review techniques) and the Students’ Achievement Level (High and Low Achievers)**

Variance Source	Df	Sum of Squares	Mean Squares	Fcount (Fc)	Ftable (Ft) 5 %	Description
Between Column (k)	1	1500.89	1500.89	17.39	4.26	$F_c > F_t$ , so $H_{01}$ is rejected $H_{a1}$ is accepted
Between Rows (b)	1	2508.04	2508.04	29.06	4.26	$F_c > F_t$ , so: $H_{02}$ is rejected $H_{a2}$ is accepted
Interaction (k.b)	1	43.75	43.75	0.51	4.26	$F_c > F_t$ , so $H_{03}$ is rejected $H_{a3}$ is accepted
In group Total	24 27	2071.43 6124.11	86.31			

Based on the calculation, it was obtained:

For the calculation of post test score of the experimental and control group, with

$\alpha = 5\%$  level of significance and  $df = 1:24$ , it was obtained that  $F_{table} = 4.26$ . Based on the calculation, it was obtained that  $F_{count} = 17.39$ . Because  $F_{count} > F_{table}$ , so  $H_0$  is rejected and  $H_a$  is accepted. It can be concluded that there is a significant different between the post-test score of experimental group and control group.

For the calculation of experimental and control group high and low achievers, post test score of the experimental and control group, with  $\alpha = 5\%$  level of significance and  $df = 1:24$ , it was obtained that  $F_{table} = 4.26$ . Based on the calculation, it was obtained that  $F_{count} = 29.06$ . Because  $F_{count} > F_{table}$ , so  $H_0$  is rejected and  $H_a$  is accepted. It can be concluded that there is a significant difference between the high achievers and low achievers.

For the interaction between the teaching technique and students' achievement level, with  $\alpha = 5\%$  level of significance and  $df = 1:24$ , it was obtained that  $F_{table} = 4.26$ . Based on the calculation, it was obtained that  $F_{count} = 0.51$ . Because  $F_{count} < F_{table}$ , so  $H_0$  is accepted and  $H_a$  is rejected. It means that there is no significant interaction between the teaching technique (Numbered Heads Together and Three Minutes Review techniques) and the students' achievement level on vocabulary mastery. In short, it means that both of the teaching techniques and students' achievement level influence the students' vocabulary mastery.

Based on the result of the observation of the experimental group, most of the students had great enthusiasm in the learning process than before. It is shown from 84% of the students who were active in giving response to the teacher and 78% of the students who paid attention to the teacher's explanation. Consequently, most of the students could follow the learning process better than before

as shown 76% of the students were able to do the teacher's instruction. Moreover, in this meeting, the students had better participation and communication with others. It can be seen that there were 78% of the students who cooperated with other students to do the task from the teacher and 80% of the students competed with other students to give response. While based on the result of the observation of the control group, it can be said that the students had better enthusiasm in the learning process than before. It is shown from 71% of the students who were active in giving response to the teacher and 68% of the students who paid attention to the teacher's explanation. Consequently, most of the students could follow the learning process better than before as shown 63% of the students were able to do the teacher's instruction. Moreover, in this meeting, the students had better participation and communication with others. It can be seen that there were 65% of the students cooperated with other students to do the task from the teacher and 65% of the students competed with other students to give response.

Based on the questionnaire result of the experimental group, it was obtained that most of the students gave positive response to the implementation of Numbered Heads Together in the learning process. It can be shown from the students' response in which 60% of the students strongly agree that Numbered Heads Together is challenging, interesting, fun, and relevant to be used in learning English vocabulary. Besides that, there are 64% of the students agree that Numbered Heads Together could help them in improving their vocabulary mastery. Moreover, there are 52% of the students agree that Numbered Heads Together made them get along with their friends. In addition, there are 56% of the students agree that Numbered Heads Together made them being interested in doing the tasks. While based on the questionnaire result of the control group, it was obtained that most of the students gave positive response to the implementation of



Three Minutes Review in the learning process. It can be shown from the students’ response in which 56% of the students strongly agree that Three Minutes Review is challenging, interesting, fun, and relevant to be used in learning English vocabulary. Besides that, there are 56% of the students strongly agree that Three Minutes Review could help them in improving their vocabulary mastery. Moreover, there are 59% of the students agree that Three Minutes Review made them get along with their friends. In addition, there are 56% of the students agree that Three Minutes Review made them being interested in doing the tasks.

### Discussion

The data analysis of the pre-test scores showed that its distributions follow a specific shape of distribution curve. It showed that the experimental group and control group were both in normal distribution. It is in line with Fraenkel & Wallen (2008:192) who said that “When the distributions of data follow a certain specific shape of distribution curve, it means that the data is in the normal distribution.” In addition, the data also have homogeneous variances. It means that both of them were in the same condition. Therefore, they could be compared and taken as the sample of this research.

Afterwards, both of the experimental and control groups were given same learning material. They were taught the vocabulary related to descriptive text especially describing people and things by using different treatment (different teaching technique). The experimental group (class 7A) was taught by using Numbered Heads Together, while the control group (class 7B) was taught by using Three Minutes Review. After the treatment, both of the experimental group and control group were given the same post-test.

From the observation done during the learning process and from the questionnaire given to the experimental and control group, all of the students, including the high and low achievers had great enthusiasm in following the lesson. Most of them gave great response

to the teacher, paid attention to the teacher’s explanation, did the teacher’s instruction well, cooperated with other students to do the task from the teacher together, and competed with other students to give response. It seemed that all of the experimental group students enjoyed the learning which used Numbered Heads Together technique, and all of the control group students also enjoyed the learning which used Three Minutes Review technique.

Nevertheless, both of the experimental and control group had different result in the post-test data analysis. It showed that there was significant difference between Numbered Heads Together and Three Minutes Review techniques on students’ vocabulary mastery. Numbered Heads Together was good and effective to be used in teaching vocabulary for both high and low achievers. On the other hand, although both of the high and low achievers were effective to be taught by using Three Minutes Review, the result showed that it was better using Three Minutes Review for teaching high achievers than low achievers.

Based on the explanation above, it means that high achievers were good to be taught either by using Numbered Heads Together or Three Minutes Review, while low achievers were better to be taught by using Numbered Heads Together than Three Minutes Review. It can be concluded that Numbered Heads Together is more effective than Three Minutes Review to be used in teaching vocabulary for both high and low achievers, while Three Minutes Review is better used for improving students’ motivation only and not for better achievement of vocabulary.

In the case of interaction between the variables, Fraenkel & Wallen (2008:194) stated if  $F_{count} > F_{table}$  means that there is interaction among the variables. However, the findings revealed that  $F_{count} < F_{table}$ , which means that there was no interaction between the teaching techniques (Numbered Heads Together and Three Minutes Review) and the students’ achievement level on vocabulary mastery. It indicated that both of the teaching techniques and the students’ achievement

level influence the students' better achievement of vocabulary.

## CONCLUSION

After conducting research, both of the experimental and control group had different result in the post-test data analysis. It showed that there is significant difference between Numbered Heads Together and Three Minutes Review techniques on students' vocabulary mastery. Numbered Heads Together was good and effective to be used in teaching vocabulary for both high and low achievers. On the other hand, although both of the high and low achievers are effective to be taught by using Three Minutes Review, the result showed that it was better using Three Minutes Review for teaching high achievers only than low achievers.

Based on the explanation above, it means that high achievers are good to be taught either by using Numbered Heads Together or Three Minutes Review, while low achievers are better to be taught by using Numbered Heads Together than Three Minutes Review. It can be concluded that Numbered Heads Together is more effective than Three Minutes Review to be used in teaching vocabulary for high and low achievers, while Three Minutes Review is better for improving students' motivation only and not for better achievement of vocabulary.

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