

Is Peer Interaction Necessary for Optimal Active Learning? Using Minimal Pairs for Improved Students' Pronunciation Ability

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***Abstract.** In teaching and learning process in the class, there are a lot of students who find some difficulties in learning English. One of the difficulties that the students find in English learning activity is pronunciation. Pronunciation is important because it is the way someone communicate to other, express ideas, feelings, and thought in speaking form. The objective of this research is to know whether there is an Influence of Using Minimal Pairs towards Students' Pronunciation Ability. The research methodology used was quasi experimental design. In this study, we analyzed student responses on an optimized pretest and posttest administered during two different class in a english course. The researcher took two classes, one class as the experimental class and one class as the control class. In the experimental class, the researcher used Minimal Pairs and in the control class the teacher used Reading Aloud. The meetings held in three times in which 2 x 45 minutes for each class. After doing posttest, then the researcher analyzed the data using SPSS to compute t . The result is using Minimal Pairs was a significant influence towards students' pronunciation ability. It shown from $Sig = 0.025 < \alpha = 0.05$.*

Key words: *minimal pairs; experimental research; pronunciation ability*

A. INTRODUCTION

Pronunciation is one of the micro skills that must be mastered by the students in learning English. Brown states that pronunciation is a key to gaining full

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communicative competence. That is the reason why learning English pronunciation is very important to understand what people say in communication or interaction in daily life.

Teaching pronunciation is important to build students' ability in speaking. Harmer states that in some particular cases, Pronunciation allows students to get over serious intelligibility problem (Harmer, 2007). Students will have the sense of confidence to speak English in the class or daily life when their pronunciation is good.

The researcher conducted a preliminary research in SMA TRI SUKSES Natar South Lampung to know the students' pronunciation ability. Based on the preliminary research, most of the students' score in pronunciation was under the standard score.

To solve that problem, the students have to learn pronunciation by their ownelves not only in the classroom, but also out of their English class.

They have to do much practice. There are many technique to learn pronunciation, one of them is by using minimal pairs. Minimal pairs could be learnt easily. According to Hamann, Minimal Pairs is generally, when we wish to decide whether two segments belong to the same phoneme or, on the contrary, are realisations of two different phonemes, we put them in an identical context, that is the same string of sounds. When there is a difference between two otherwise identical strings of sound and this difference results in a change of meaning.

Teaching speaking by using Minimal Pairs has been researched by Jenkins. In her research, she used Minimal Pairs and took a student as a respondent. She treated the students' speaking ability by using Minimal Pairs in three times. As the result, the students' speaking ability improved because there were only few

mistakes in the last attempt was made by her after first and second attempt and the students be brave to speak up.

result of the research and written in English will be prioritized. The manuscript(s), which discusses the possible development of theories or suggested ideas in English language, is considered to be accepted in this journal.

B. RESEARCH METHOD

In this research, the researcher used the experimental research. Experimental research is the most powerful quantitative research method for establish cause and effect relationship between two or more variables (Hamann and Schimtz, 2005) It means that the researcher gave the treatment to the students to know the influence of using Minimal Pairs as a technique toward students' pronunciation ability.

In this design, the researcher used quasi experimental design. The researcher selected two classes, one class was the control class and the other class was the experimental class. This design was used because the researcher does not randomly assigns the student to classes and it disturbs classroom learning process. Therefore, when randomized designs are not feasible, the researcher must make use of quasi-experimental design.

The students in experimental class were taught by using Minimal Pairs. The students in control class got treatment with the ordinary technique.

The variety of quasi experimental design could be divided into two main categories, they are posttest only control group design and nonrandomized control group, pre-test-post-test design. In this research design use nonrandomized control group.

A great deal of research, according to Nunan, is carried out in order to explore the strength of relationships between variables. A variable, as the term itself suggests, is anything which does not remain constant. It may differ among individuals and change overtime. There were two variables that were investigated in this research: dependent and independent.

The population of this research was conducted at the students at the second semester of the eleventh grade of SMA TRI SUKSES Natar South Lampung. It consists of six classes. There were 163 students in this class.

The number of population, sometimes, is too big and out of reach. The population in the research was 163 students. According to Arikunto, a sample is a subset of individuals or cases from a population. Meanwhile, McMillan states that the sample can be selected from a large number group of persons; identified as the population, or it can simply refer to the group of subject from whom data are collected. In conducting this research, the researcher took sample from the population the resarch by using cluster random sampling.

To collect the data, the researcher used two kinds of techniques such as follows: pretest and posttest. Pretest was used to know the students' pronunciation ability. The test was orally with the students should read 20 words below the text and then the researcher record the students' pronunciation in the recorder. Posttest was used to know the students' pronunciation ability after they were taught by using Minimal Pairs. The test was orally the students read 20 words below the text and then the researcher records the students' pronunciation in the recorder.

In this research, the instrument was test. The test was in form of oral test. This test was aimed to measure the students' pronunciation ability. In this case, the oral test was about English Narrative Text in which the students show their pronunciation ability in front of the class. Indeed there were two instruments in this research;

they were pretest and posttest. The researcher used inter-rater technique in analyzing the instrument.

C. FINDINGS AND DISCUSSION (Times New Roman 12pt, Bold)

Result of Pretest in Control Class

The pretest was administered on Monday, 15th February, 2016. It was the first meeting, the researcher conducted pre-test to find out the previous students' pronunciation ability. The scores of pre-test in control class that were tested could be seen in figure 1.

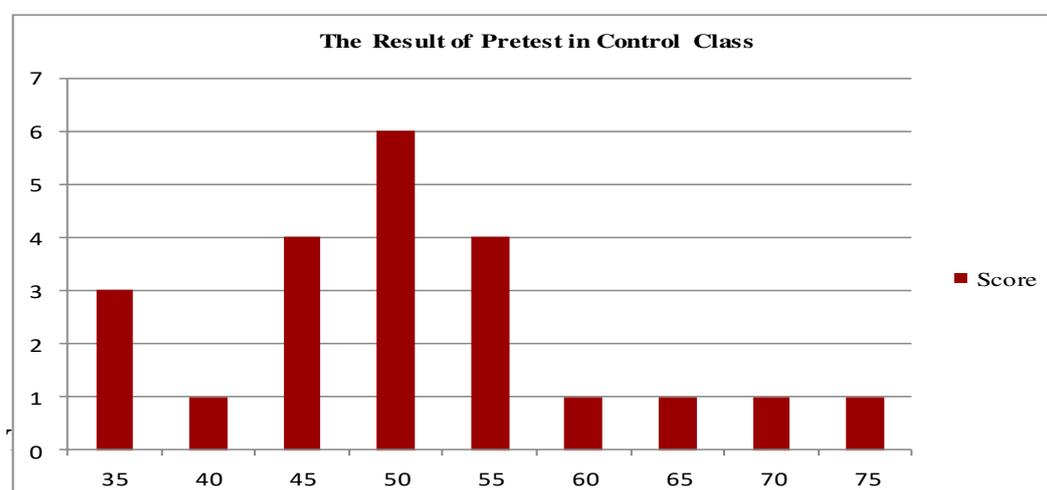


Figure 1 Graphs of the Pretest Result in Control Class

Based on the figure 1, it showed the result of the pre test were the minimum score was 35 and the maximum score was 75. There were 3 students who got the score 35, There were 1 student who got the score 40. There were 4 students who got the score 45. There were 6 students who got the score 50. There were 4 students who got the score 55. There were 1 student who got the score 60, it was also in score 65, 70, and 75. Based on figure 1, the mean of pre test in control class is 50.68, standard deviation was 10.499, N was 22, median was 50.00, mode was 50, variance was 110.227, minimum score was 35, and maximum score was 75.

Result of Posttest Control Class

The researcher conducted post test on Monday, 29th February, 2016. The researcher found out the students' pronunciation ability after they got treatment by using minimal pairs. The scores of posttest in control class that were tested could be seen in figure 2.

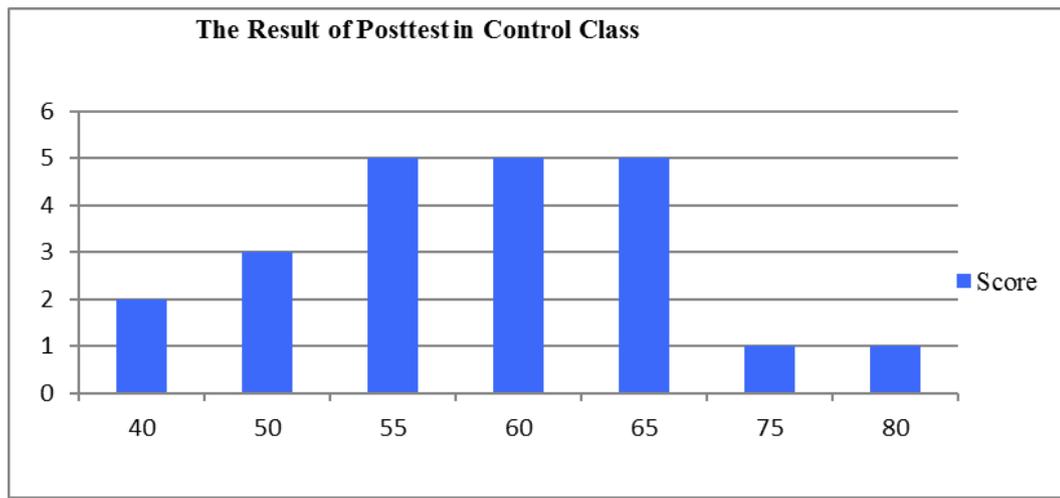


Figure 2 Graphs of the Posttest

Based on the figure 2, it showed the result of the pre test were the minimum score was 40 and the maximum score was 80. There were 2 students who got the score 40, there were 3 students who got the score 50, there were 5 students who got the score 55, there were 5 students who got the score 60, There were 5 students who got the score 65, There were 1 student who got the score 75, there were 1 student who got score 80. Based on Figure 2, the mean of post-test in control class is 58.41, standard deviation was 9.560, N was 22, median was 60.00, mode was 55, variance was 91.396, minimum score was 40, and maximum score was 80.

Result of Pretest Experimental Class

The researcher has given pre-test in experimental class by using minimal pairs. The pre test was conducted before giving treatments. It was given to find out

students' pronunciation ability before treatment. The distribution frequency of students' pronunciation ability could be seen in figure 3.

Based on the figure 3, it was shown the result of the pre test were the minimum score was 45 and the maximum score was 75. There was 1 student who got the score 45. There were 6 students who got the score 50. There were 6 students who got the score 55. There were 10 students who got the score 60. There were 2 students who got score 65. There were 2 students who got the score 70. There was 1 student who got the score 75. Based on Figure 4.3, the mean of pre-test in experimental class was 57.86. Standard deviation was 6.996. N was 38. Median was 60.00. Mode was 68. Variance was 48.942. Minimum score was 45 and maximum score was 75.

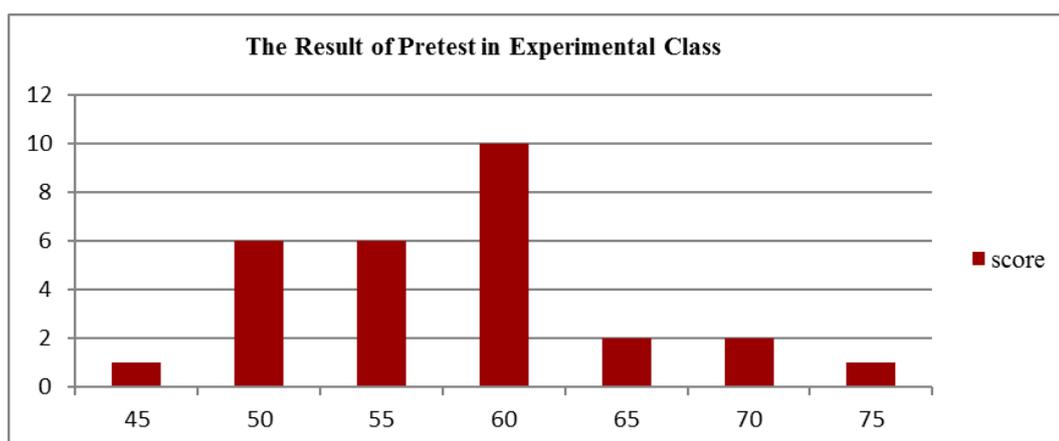


Figure 3 Graphs of the Pretest

Result of Post-test Experimental Class

The researcher conducted post-test in order to see students' pronunciation ability after the treatment. The post-test administered on February, 29th 2016. The distribution frequency of students' pronunciation ability could be seen in figure 4.

Based on the figure 4, it showed the result of the post test. There were the minimum score was 60 and the maximum score was 85. There were 5 students who got the score 60. There were 2 students who got the score 65. There were 9 students who got the score 70. There were 7 students who got the score 75. There were 3 students who got the score 80. There were 2 students who got the score 85. Based on Figure 4, the mean of post-test in control class is 71.25. Standard deviation was 7.281, N was 28, median was 70.00, mode was 70, variance was 53.009, minimum score was 60, and maximum score was 85. It showed the improvement of students' pronunciation ability after they got the treatments.

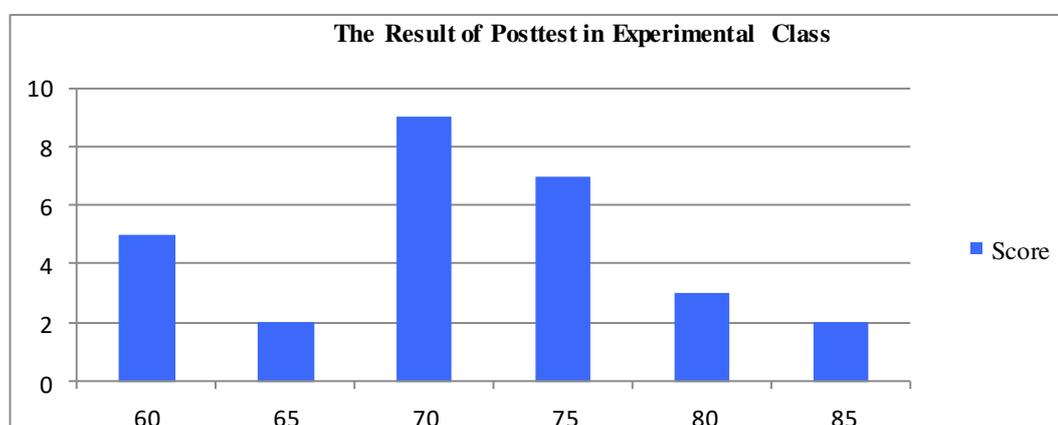


Figure 4 Graphs of the Posttest

Result of Analysis Data

In analyzing data, the researcher used independent sample t-test. Independent sample t-test statistically is to compare two different mean from different data and different group.

Fulfillment of the Assumptions

Parametric statistical significance tests, such as analysis of variance and least squares regression, are widely used by researchers in many disciplines, including, statistics parametric tests to produce accurate results, the assumptions underlying them such as normality and homogeneity test must be satisfied.

The Result of Normality Test

The normality test is used to measure weather the data in the experimental class and control classes are normally distributed or not. In this research the researcher used statistical computation by using SPSS (*Statistical Package for Social Science*) for normality. The tests of normality employed are Kolmogorov – Smirnov and Shapiro Wilk.

Table 1 Normality of the Experimental Class and Control Class

Technique		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Score	Control Class	.164	22	.126	.943	22	.228
	Experimental Class	.110	28	.200*	.974	28	.678

Based on the table 1, it can be seen that Pvalue (sig) for experimental class was 0.200 for Kolmogorov-Smirnov^a and 0.678 for Shapiro-Wilk. Pvalue (sig) for control class was 0.126 for Kolmogorov-Smirnov^a and 0.228 for Shapiro-Wilk. The Pvalue (sig) of experimental class was $> \alpha 0.05$, it means H_0 is accepted and *Sig (P value)* for the control class $> \alpha 0.05$ it means H_a is accepted. The conclusion was that the data in the experimental class and for the control class had normal distribution.

The Result of Homogenety Test

Homogeneity test is used to determine whether the data obtained from the sample homogeneous or not. The researcher used statistical computation by using SPSS (*Statistical Package for Social Science*) for homogeneity. The test of homogeneity employing levene’s test.

Table 2 Homogeneity Test

		Levene Statistic	df1	df2	Sig.
Score	Based on Mean	.883	1	48	.352
	Based on Median	.810	1	48	.373
	Based on Median and with adjusted df	.810	1	47.004	.373
	Based on trimmed mean	.882	1	48	.352

Based on the results obtained in the test of homogeneity of variances in the column Levene Statistics it can be seen that $Sig (Pvalue) = 0.352 > \alpha = 0.05$. It demonstrated that H_0 is accepted because $Sig (Pvalue) > \alpha = 0.05$. It means that the variance of the data is homogenous.

Result of Hypothetical Test

Based on the previous explanation that the normality and homogeneity test was satisfied. Therefore, the researcher computed Independent sample T-test by using SPSS (*Statistical Package for Social Science*) for hypothetical of test.

Table 3 the Result of Hypothetical Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Score	Equal variances assumed	.883	.352	-2.316	48	.025	-5.666	2.446	-10.584	-.747
	Equal variances not assumed			-2.377	47.958	.021	-5.666	2.383	-10.458	-.874

Based on the results obtained in the independent sample t-test above, that the value of significant generated $Sig (P value) = 0.025 < \alpha = 0.05$. So, H_0 is rejected and H_a is accepted. Based on the computation, it can be concluded that there is a significant influence of using minimal pairs towards students' pronunciation ability at the first semester of the eleventh grade.

Discussion

The teaching learning process ran smoothly. The students cooperated well throughout third meetings. Based on the result of research, it has shown that Minimal Pairs influence the students' pronunciation ability. From the result of the research, it has shown that the result of the gain between pre-test and post-test in experimental class was higher than in control class, not only the mean of the score, but also the amount of the students who had passed the Criteria of Minimum Mastery (CCM). The students in experimental class were taught by using minimal pairs and the students in the control class were taught by using reading aloud. Each class was given pre-test and post-test. It was done to know the score of pronunciation ability by using minimal pairs and reading aloud in every meeting. The meetings were held in three times in each class. At the beginning of the activity, the pre-test was administered in experimental class and control class to know the students' pronunciation ability score. In the last of the research, the post-test was given to experimental class and control class. Both of classes were given some topics. The topic form was different with the topic in pre-test. Based on the analysis of the data and testing hypothesis, the result of calculation found that H_a was accepted and H_o was rejected. The mean score of post-test in experimental class was 71.25 and the mean score of posttest in control class was 58.41.

From the hypothesis, it could be concluded that students in experimental class were taught by using minimal pairs had better score than students in control class were taught by using reading aloud. It means that, minimal pairs gave an influence towards students' pronunciation ability because the students could improve their pronunciation ability after they were taught by using minimal pairs technique. It could be seen that the average score of the students' pronunciation were taught by using minimal pairs was higher than the students were taught by another technique.

Based on Lado that pronunciation is the use of a sound system in speaking and listening. According to Brown that pronunciation is a key to gaining full communicative competence. McGilvray states that minimal pairs is a pair of words that differ in a single phoneme. Minimal pairs is a good technique to improve the students' pronunciation ability that revealed based on Roach state that minimal pairs could improve the students' pronunciation ability.

The previous research was conducted by Jenkins. It was about minimal pairs in teaching speaking was revealed that minimal pairs made the students did few mistakes and be brave to speak up. So, it could be proof that minimal pairs could improve the students' pronunciation ability. It was also could make interested the students to learn English pronunciation and increase their language skill.

From those analysis, we know that students who got minimal pairs got better score than the students who got reading aloud technique. The result of the research indicated that there is a significant influence of using minimal pairs towards students' pronunciation ability.

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