THE EFFECTIVENESS OF MINIMAL PAIRS TECHNIQUE TO IMPROVE STUDENTS' ACCURACY IN PRONUNCIATION SKILLS FOR JUNIOR HIGH SCHOOL STUDENTS AT SMPN 1 LENGKONG IN THE ACADEMIC YEAR 2020/2021

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Abstrak

Tujuan dari penelitian ini adalah (1) Untuk mengetahui pencapaian ketepatan siswa dalam keterampilan pengucapan sebelum menggunakan *Minimal Pair* sebagai teknik dalam proses belajar mengajar. (2) Untuk mengetahui pencapaian ketepatan siswa dalam keterampilan pengucapan setelah menggunakan *Minimal Pair* sebagai teknik dalam proses belajar mengajar. (3) Untuk mengetahui keefektifan yang signifikan sebelum dan sesudah diajar menggunakan teknik *Minimal Pair* untuk meningkatkan ketepatan keterampilan pengucapan siswa dalam proses belajar mengajar di SMPN 1 Lengkong tahun pelajaran 2020/2021. Metodologi penelitian ini adalah *Quasi-Experimental Design* dengan *The one group pre-test and post-test*. Penelitian ini sudah dilaksanakan di SMPN 1 Lengkong tahun akademik 2020/2021 dengan populasi seluruh siswa kelas satu berjumlah 227 siswa. Sedangkan sampel yang digunakan oleh peneliti adalah kelas VII-1 yang terdiri dari 32 siswa. Teknik pengambilan sampel menggunakan *non-probability sampling*. Pengumpulan data menggunakan pre-test dan post-test. Teknik analisis data yang digunakan untuk menganalisis data dalam penelitian ini adalah statistik deskriptif, analisis statistik inferensial menggunakan uji t dan uji N-Gain. Berdasarkan hasil tes, siswa menunjukkan nilai rata – rata pre-tes 41, 25 dan post-tes 70,156. Berdasarkan hasil t_{tes}, t_{tabel} untuk db 5% adalah 1,696 dan nilai t_{hitung} adalah 20,424. Sehingga, $t_{hitung} > t_{tabel}$ maka dapat disimpulkan Ho ditolak dan Ha diterima. Selain itu, tes N-Gain menunjukkan rata-rata gain score pada kelas ini termasuk dalam kategori tinggi dengan hasil sebesar 1,115. Sehingga "Terdapat Keefektifan Yang Signifikan Sebelum dan Setelah Diajar Menggunakan Teknik Minimal Pair Terhadap Ketepatan Pelafalan Siswa Pada Siswa SMPN 1 Lengkong Tahun Ajaran 2020/2021."

Kata kunci: *Minimal Pair*, Keakuratan, Kemampuan Pelafalan Siswa.

Introduction

Speaking is one of the most important aspects of English skills as a second language that must be mastered because speaking is used for communication in social interaction. When we communicate with other people, we should not only have a lot of vocabulary but also have good pronunciation to make it clear. In our country, the goals of English language teaching in the junior high school is to improve their communicative competence (Silabus KTSP 2006). It means that through learning English, the students are able to access knowledge and they are ready to communicate English fluently and accurately in social context. In fact,

there are many students who are not aware of the benefit mastering English especially for the accuration of pronunciation skills.

Based on the researcher's observation which was done on 9th April 2021 at the first grade of SMPN 1 Lengkong in class VII-1 and unstructured interview with the English teacher of this classroom, the researcher found that 70% of students in class VII-I at SMPN 1 Lengkong have problems to pronounce English vocabularies, although the students' get English lessons in their school, but they can't master English pronunciation well. Therefore, students often make errors especially in doing a speaking performance. The common problem that the researchers found in this class is students have difficulty distinguishing the pronunciation of words that have similar sounds. For example, the difficulty of students in distinguishing and pronouncing vowels in the words beach / bēCH / and peach / pēCH / as well as pea / pē / and bee / bē /.

One of the techniques recommended by some linguists to improve students' english pronunciation skills is *minimal pair drills*. This teaching strategy can be used to get learners to identify and contrast the sounds between words (Levis & Cortes, 2008). Under this assumption, the researcher chose minimal pairs as a technique in learning teaching process to improve students' accuracy in their pronunciation skill because minimal pair is considered to help students overcome their pronunciation difficulties, especially for English sounds. It uses words that differ by a single sound in the same position, for example, sleep – slip, gate – get.

As explained in the discussion of the problem, This research tries to describe the students' English learning at first grade students' of SMPN 1 LENGKONG in the academic years 2020/2021. Especially in terms of: 1) To find out the achievement of students' accuracy in their pronunciation skills before using the minimal pairs as a technique in teaching and learning process at SMPN 1 Lengkong in the academic year of 2020/2021, 2)To find out the achievement of students' accuracy in their pronunciation skills after using the minimal pairs as a technique in teaching and learning process at SMPN 1 Lengkong in the academic year of 2020/2021, 3)To find out the significant effectiveness before and after being taught using the minimal pairs technique to improve the accuracy of students'

pronunciation skill in teaching and learning process at SMPN 1 Lengkong in the academic year of 2020/2021.

Research Method

In this study, the researcher conducted the research at SMPN 1 LENGKONG that is located on Jatipunggur village, Lengkong District, Nganjuk. The researcher takes only the first years students at class VII-I with 32 students as a sample to teach in the academic year of 2020-2021.The type of the experimental research used in this research is A Quasi-Experimental Design in the form of *The One Group Pre-test and Post-test*. The design of the research as below:

Table 1. The Design of Pre-test and Post-test

| Pre - Test	Treatment	Post - Test
O1	X	O2

here :

X : Treatment

O1 : Pre – test

O2 : Post – test

The pcocedures used in this design are: 1) Pre Test, the researcher conducts a test to know the result of value before using minimal pair as a technique in pronunciation teaching learning process. Before conducting treatment, the pre-test is given to students of the seventh grade of SMPN 1 LENGKONG by asking the students to do the assignment which conduct based on the English lesson schedule of the class. 2) Treatment, the treatment will be doing after conducted the pre-test. The researcher will be drills students with minimal pairs in order to improve students' accuracy in their pronunciation skill. 3) Post-test, the researcher conducts post-test which is the next test after conducting the treatment. The aim of this test is to know the result of value after being taught using minimal pairs drill as a technique in pronunciation teaching learning process.

In this research, the researcher use the technique of collecting data to receive the result of the Strategy. They are as follows: 1) Pre Test, the researcher conducts a test to know the result of value before using minimal pair as a technique in pronunciation teaching learning process. Before conducting treatment, the pre-test is given to students of the seventh grade of SMPN 1 LENGKONG by asking the students to do the assignment which conduct based on the English lesson schedule of the class. 2) Post-test, the researcher conducts post-test which is the next test after conducting the treatment. The aim of this test is to know the result of value after being taught using minimal minimal pairs drill as a technique in pronunciation teaching learning process.

The Research Procedure

Before the researcher gets the data, there are many procedures that must be passed to collect the data. There are several procedures that must be done in order to achieve the best results in this study, the procedures are as follows:
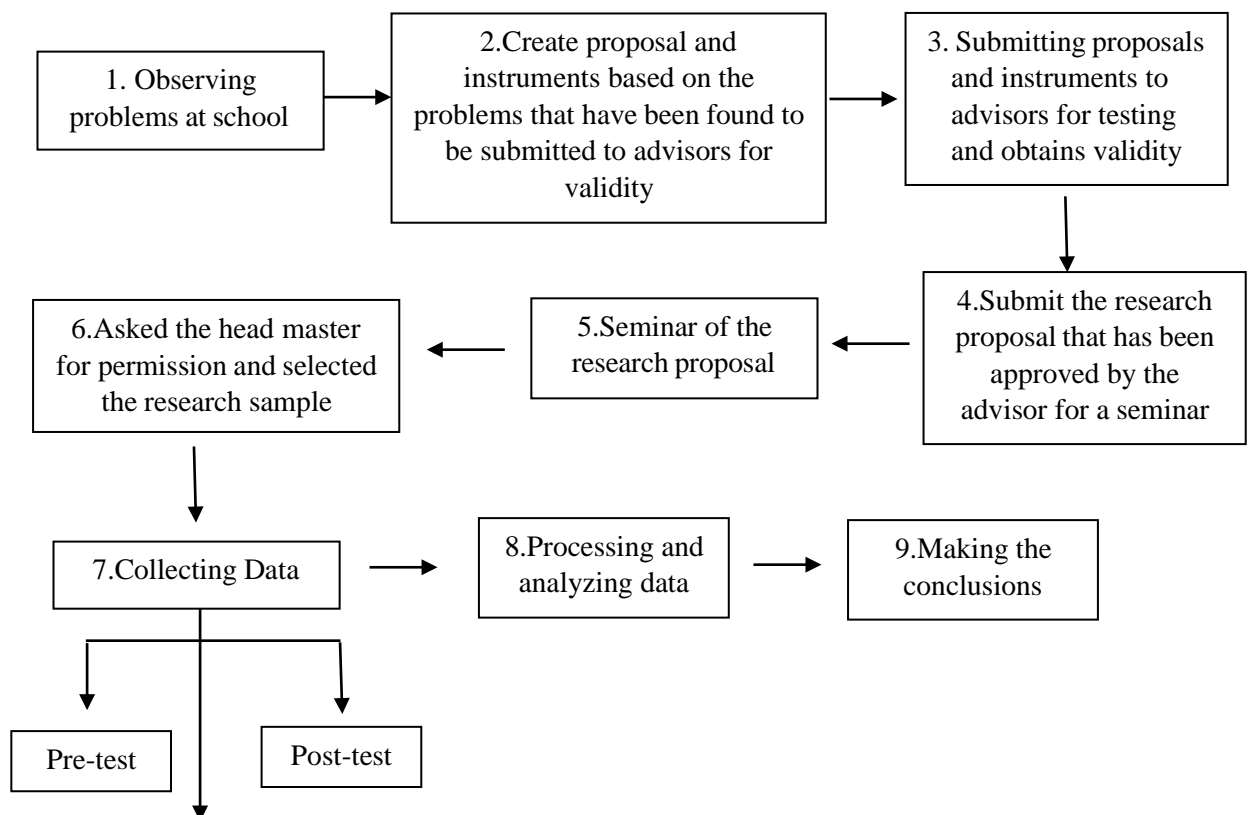
Treatment (teaching pronunciation by using minimal pairs technique)

Chart 1. Conceptual Procedure of the Research

The researcher gave the pre-test to know the students' achievements and skill of reading before being taught by using Minimal Pair Technique. After receiving the data, the researcher taught the students using the Minimal Pair Technique until the students feel comfortable to use the technique. And then the students received the post-test. They work individually in both of pre-test and post-test sessions.

Cresswell (2012 : 381) states "Population is the group of individuals having one characteristic that distinguishes them from other groups.". According to Arikunto (2013:173), Population is the whole subject of research. Based on explanation above, the population of this study included all of the first grade students at SMPN 1 Lengkong in the academic year 2020/2021. The total populations were 227 students.

According to Cresswell (2012 : 381) Sample is the group of participants in a study selected from the target population from which the researcher generalizes to the target population. In this research, the researcher will use non-probability sampling. The sample of this research was the students of class VII-1 at SMPN 1 Lengkong which consist of 32 students, with 15 male students and 17 female students.

As research method above, the researcher uses experimental research that is completed by using quantitative data. The researcher achieved the data through pre-test and post-test. Data analysis method which is relevant in this research is the quantitative analysis by using descriptive statistics, inferential statistics and N-Gain test.

The first of data analysis method is Descriptive Statistics. Descriptive statistics is statistics used to analyze data by describing the data as it is without

intending to generalize. In this study, the data gained from the students' pronunciation score with and without using Minimal Pair technique will be described by descriptive statistics, starting from finding the average value (Mean).

The second of data analysis method is Inferential Statistics. Inferential statistics used in this research is to find out the significant difference of students' accuracy in their pronunciation skills before and after teach by using minimal pair drill technique. Analysis inferential is used to determine whether the hypothesis is accepted or ejected and gauge the significance of the average of the samples studied were using t-test. The t-test formula is as follows by (Arikunto, 2010 : 349).

a.   **Find t_{count}**

$$t = \frac{Md}{\sqrt{\frac{\sum x^2 d}{N(N-1)}}}$$

$$Md = \frac{\sum d}{N}$$

$$\sum x^2 d = \sum d^2 - \frac{(\sum d)^2}{N}$$

Where :
Md   = Mean gain or difference between post-test and pre-test
d   = Gain score Pretest-Posttest
$\sum d2$ = Gain after quadrate
N   = Sample
$\sum X^2 d$ = Gain of deviation quadrate
$\sum d$ = Gain score

The third of data analysis method is using N-Gain test. According to Edward Corcoran (2005: 5), the N-Gain Hake test is used to measure how much students understand after learning is carried out. Each test is given at the beginning and end of the meeting, and students' increase in comprehension is marked by gain. Gain is the difference between the posttest and pretest scores. The N-Gain test formula is as follows:

$$N \, Gain = \frac{Post \, test \, - \, Pre \, test}{Ideal \, Score \, - \, Pre \, test}$$

Where:

Ideal Score $= 70$

This formula is used to obtained the results from pre-test and post-test. The mean of score from the pre-test will be compared with mean from the post-test. The purpose is to know the average of the students score and to know how far the students' reading ability.

To test the value of t-test is obtained if the hypothesis is accepted to use t_{table} the significant of 5%. The $t_{count} > t_{table}$ then the hypothesis is accepted. While the N-Gain test is used to determine the effectiveness of the increase. The results of the N-gain are used as a comparison between before and after learning is carried out.

Research Finding and Discussion

The researcher presents the students' pronunciation result before and after being taught by using Minimal Pair Technique. The description is appeared in the following table:

Table 2. Students' Pronunciation Achievement Result Before and After Using Minimal Pair Technique

No.	Name	Pre-test (x)	Post-test (y)	D (y-x)	D (y-x)^2
1.	Adhelia Ayu S	35	80	45	2025
2.	Adinata Cahaya R	45	60	15	225
3.	Alan Putra M	50	80	30	900
4.	Anasyia Gani A	35	65	30	900
5.	Andrian Putra	35	70	35	1225
6.	Aulia An Nafi R	35	70	35	1225
7.	Berliano Prize	50	80	30	900
8.	Bunga Citra S	35	75	40	1600
9.	Cantika Adinda P	45	80	35	1225
10.	Clarisa Mey S	40	60	20	400
11.	Dimas Dwi M	50	75	25	625
12.	Divo Mishbah S	45	65	20	400
13.	Elsa Lurinsu	55	80	25	625
14.	Fera krismei K	20	45	25	625
15.	Florencia Aurora W	45	80	35	1225
16.	Hildan Ramadinata	40	80	40	1600
17.	Ismie Wahyu Ningsih	60	80	20	400
18.	Isti Tria D	25	45	20	400
19.	Kayysa Dahayu K	40	70	30	900

20.	Leo Tri Aditama	15	40	25	625
21.	M. Rizal Aditama	45	60	15	225
22.	M. Zahron Al-Faqih	55	80	25	625
23.	Meda Siliwangi	30	70	40	1600
24.	Mizwar F.P	40	70	30	900
25.	Nafisah Janan M	40	80	40	1600
26.	Novita Anggreini	40	75	35	1225
27.	Raka Aditya P	20	55	35	1225
28	Ratri Larasati	55	80	25	625
29.	Rian Dwi Andika	40	75	35	1225
30.	Risma Mayhany Rombe	55	80	25	625
31.	Serly Rahma Wati	50	70	20	400
32.	Tisana Riska S	50	70	20	400
	Σ	1320	2325	925	28725

To know the mean of the pre-test and post-test, the researcher use the mean formula. The mean score of the pre-test is 41,25 and the mean score of the post-test 70,156.

From the table, the mean different of students' reading score can be found by applying the following formula:

$$Mx = \frac{\Sigma x}{Nx}$$

$$Mx = \frac{925}{32}$$

$$= 28,9$$

Determining standard of deviation score with formula:

$$SDx = \sqrt{\frac{\Sigma x^2}{Nx}}$$

$$SDx = \sqrt{\frac{28725}{32}}$$

$$SDx = \sqrt{897,656}$$

$$= 29,96$$

Meanwhile, to find the t_{score} based on the presented data, the result can be computed using the following formula:

$$t = \frac{Md}{\sqrt{\frac{\Sigma x^2 d}{N(N-1)}}}$$

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$$Md = \frac{\Sigma d}{N}$$

$$\Sigma x^2 d = \Sigma d^2 - \frac{(\Sigma d)^2}{N}$$

$$t = \frac{Md}{\sqrt{\dfrac{\Sigma d^2 - \dfrac{(\Sigma d)^2}{N}}{N(N-1)}}}$$

$$t = \frac{28,9}{\sqrt{\dfrac{28725 - \dfrac{(925)^2}{32}}{32\,(32-1)}}}$$

$$t = \frac{28,9}{\sqrt{\dfrac{28725 - \dfrac{855625}{32}}{992}}}$$

$$t = \frac{28,9}{\sqrt{\dfrac{28725 - 26738,28}{992}}}$$

$$t = \frac{28,9}{\sqrt{\dfrac{1986,72}{992}}}$$

$$t = \frac{28,9}{\sqrt{2,002}}$$

$$t = \frac{28,9}{1,415}$$

$$t = 20,424$$

It is shown the result of t_{count} is $20,424$

To know the significant difference between the students' score before and after being taught by using Minimal Pair Technique, the result of t_{count} must be counsulted to $t_{table.}$

Df = N-1

$= 32 - 1 = 31$

So, the result of t_{count} can be matched on Df 31 as shown on the table:

Table 3. Scores in the Distribution of T

a one tail test

Df	0,01	0,05
29	2,462	1,699
30	2,457	1,697
31	**2,453**	**1,696**
32	2,449	1,694
33	2,445	1,692
34	2,441	1,691
35	2,438	1,690
36	2,434	1,688
37	2,431	1,687
38	2,428	1,685
39	2,425	1,684
40	2,423	1,683

From the T distribution it is found that t_{table} for $t_{0,05} = 1,696$ So, $t_{count} > t_{table}$ $= 20,424 > 1,696$

To know the result of pre-test and post-test that have significant difference, it must returned to the hypothesis. There are two kinds of hypothesis:

The First is Null hypothesis (H_o), this hypothesis states that there is no difference between the accuracy of students' pronunciation before being taught using the minimal pair technique and the accuracy of the students in pronunciation after being taught using the minimal pair technique for students in class VII-I of SMPN 1 Lengkong in the academic year of 2020/2021. The used of Minimal Pair will not significant if $t_{count} < t_{table}$. Data analysis shows that $t_{count} > t_{table}$ which $20,424 > 1,696$, so H_o is rejected.

The second is Alternative Hypothesis (H_a), this hypothesis states that there is a difference between the accuracy of students' pronunciation before being taught using the minimal pair technique and the accuracy of the students in pronunciation after being taught using the minimal pair technique for students in class VII-I of SMPN 1 Lengkong in the academic year of 2020/2021. The used of Minimal Pair Technique will significant if $t_{count} > t_{table}$. Data analysis shows that $t_{count} > t_{table}$, so H_a is accepted.

Based on the result of t-test above, it can be seen that the Null hypothesis (H_o) is rejected and Alternative hypothesis (H_a) is accepted. It means that there are significant difference between the result of students' achievements in pre-test and post-test. It can be concluded that the accuracy of students' pronunciation skill after being taught by using Minimal Pair Technique is better than before being taught by using Minimal Pair Technique.

Besides, Improved learning outcomes using the Minimal Pair technique can be seen by calculating the gain score. The following summary of the calculation of the gain score can be seen in Table 4.6.

Table 4. N-Gain Score Test Calculation Results

No	Gain Score	Category	Total Students	Percentage (%)
1	$g \leq 0,3$	Low	-	-
2	$0,3 < g \leq 0,7$	Medium	6	18,75
3	$g \geq 0,7$	High	26	81,25

In Table 4. shows there are 26 students with a score of gain are in the high category with a percentage of 81.25%, there are 6 students in the medium category with a percentage of 18.75%, and there are no student scores in the low category. The average gain score in this class is included in the high category with a result of 1.115. So, it can be concluded that the application of the minimal pair technique is very effective in increasing accuracy in students' pronunciation abilities.

Conclusion and Recommendation

The researcher draws the conclusion of this study as follows, it based on the data analysis: 1) The accuracy of students pronunciation skill before being taught by using Minimal Pair Technique is categorized into poor catagory. It is proven from the mean of the pre-test. The result of pre-test mean is 41,25 with highest and lowest score of the students are 60 and 15, 2)The accuracy of students pronunciation skill after being taught by using Minimal Pair Technique is categorized into good catagory. It is proven from the mean of the post-test. The result of post-test mean is 70,156 with highest and lowest score of the students are 80 and 40. The results are higher than before being taught by using Minimal Pair Technique, 3)Based on the data analysis where the result of t_{test} is 20,424 and t_{table} in 5% significance is 1,696. Then the $t_{count} > t_{table} = 20,424 > 1,696$. It can be conclude that the null hypothesis

(H_o) which $t_{count} < t_{table}$ will not significance, so H_o is rejected. Then the alternative hypothesis (H_a) which $t_{count} > t_{table}$ will significance, so H_a is accepted. Besides, from the N-Gain test it is known that 26 students with a score of gain are in the high category with a percentage of 81.25%, there are 6 students in the medium category with a percentage of 18.75%, and there are no student scores in the low category. The average gain score in this class is included in the high category with a result of 1.115. So, it can conclude that the Minimal Pair Technique is effective to improve the accuracy of students' pronunciation skill.

The researcher would like to offer recommendation as follows after getting the results of this analysis in this research:

For the further researchers, the researcher hopes that the next researcher can use this research as a reference in the preparation of future research. Finally, the researcher discovers that this work is far from perfect. Positive feedback and guidance for the better future of teacher and learners are really expected.

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