The Correlation Between Speech Rate and English Pronunciation in Tenth Grade of SMA Negeri 1 Padangan

Devi Ayu Budiarsih[1], Fitri Nurdianingsih[2], M. Zainudin[3]

[1,2]English Education, IKIP PGRI Bojonegoro, Indonesia

[3]Mathematics Education, IKIP PGRI Bojonegoro, Indonesia

eviayu024@gmail.com

Abstrak—Pelafalan merupakan salah satu aspek yang sangat penting dalam berbicara. Ketepatan pelafalan dalam berbicara juga sangat berpengaruh terhadap pemahaman mengenai apa yang sedang dibicarakan. Kesalahan pelafalan kecil dapat merubah arti dari suatu kata atau kaimat yang disusunnya. Secara signifikan, tujuan dari penelitian ini adalah untuk mengetahui ada tidaknya hubungan antara kecepatan bicara dan pengucapan bahasa Inggris siswa di kelas X SMA Negeri 1 Padangan.. Dalam penelitian ini korelasi adalah metode yang digunakan. Hasil dari penelitian ini menunjukkan bahwa korelasi antara pronunciation and speech rate menunjukkan hasil 0,49 yang mana termasuk dalam medium correlation. Ini terjadi karena tidak hanya speech rate saja yang berkorelasi dengan pronounce siswa, melainkan juga ada factor lain salah satunya adalah kemampuan kemampuan mereka dalam berbahasa Inggris.

Kata kunci—Korelasi, Kecepatan Baca, Pelafalan

Abstract— Pronunciation is one of the most important aspects of speaking. The accuracy of pronunciation in speaking also greatly affects the understanding of what is being discussed. Minor pronunciation errors can change the meaning of a word or sentence it composes. Significantly, the purpose of this study is to find out there are any correlation between speech rate and student English pronunciation or not in tenth grade of SMA Negeri 1 Padangan. In this study correlation is the method used. The results of this study indicate that the correlation between pronunciation and speech rate shows a result of 0.49 which is included in the medium correlation. This happens because it is not only the speech rate that is correlated with the students' pronunciation, but also other factors, one of which is their ability to speak English.

Keywords— Correlation, Speech Rate, Pronunciation

INTRODUCTION

Pronunciation is one of the most important aspects in English because with pronunciation it can make people more understand with what another talk about. Based on Levis (2018) statement that pronunciation is an inescapable part of spoken communication, and all speakers have an accent of some sort. From the statement above, it can be concluded that pronounce has an important role in language, even though it has very good abilities in the aspect of listening, speaking, grammar, and vocabulary if it has a low pronunciation abilities, it can be said that the person is not good enough

in mastering English. So pronounce can not only be developed in learning it through formal learning, but also can be developed by getting used to pronounce it in everyday life such as in class or in the home environment if the environment supports it to be used as a place to practice pronounce.

Pronunciation training for non-native speakers of English is an important yet overlooked aspect of English education, as learners of English need to communicate using intelligible pronunciation in their daily interactions (Phona, 2021). From the way someone pronounces speaking, with the use of intonation, dialect, the length of the voice and the various aspects surrounding pronunciation, we can see how fluently they speak English, which in fact is a foreign language in Indonesia. Likewise with English writing, not all alphabets are read the same, a small example is the pronunciation of 'apple' and 'water' both of which have the letter 'a' but have very different pronunciations. This is why it is important for us to learn pronunciation.

There are many ways to help improve pronunciation even better, such as listening songs, watching English movies with English subtitles, playing English games, and so on. This ability cannot come only with one practice or with one memory, because pronounce needs to be trained continuously to facilitate and make it familiar with the pronunciation of a foreign language that is different from everyday language. The more fluently someone pronounces words in English, the more fluent we are in speaking English. But keep in mind also that the Speech rate also affects the pronunciation that is produced by someone.

The faster reading speed, the more fluent he is in speaking English well. However, there are also many people who speak fluent English who speak very quickly, making the listener confused with what they are saying because the words they say are like a mumble, therefore it is necessary for us to adjust the speed of speaking to maintain how the words produced still have the correct spelling. Correct.

On the other hand, Speech rate itself depends on the individual speaking ability is. Speech rate is the term given to the speed at which you speak. It's calculated in the number of words spoken in a minute. A normal number of words per minute (wpm) can vary hugely. Tividar (2017) states that for people, who normally speak a bit faster, normal would be seven syllables per second. It can be concluded that a person's reading speed is how fast a person is able to pronounce a word correctly in one minute. So the faster someone reads it, the higher the value that will be obtained. In reading in English, the normal reading speed for adults is 200 to 250 words per minute.

Taking this title is to find out how much correlation speech rate has on the pronunciation. This research was conducted in tenth grade of SMA Negeri 1 Padangan to find out how many correlation it has through Narrative text which is a reference to support the smooth running of this research. There are many obstacles that must be overcome by both teachers and students who are taught to speak English. Moreover, the position of English here is as an English Foreign Language which makes it increasingly difficult for students to have the opportunity to train how capable they are in speaking English well, especially for the pronunciation aspect which should be trained every day.

It's different if students live in an environment that often uses English or students who are already familiar with English, reading speed may not affect how fluent they are spelled. However, it is difficult to find students who are actually able to speak at

a high reading speed with a high fluency pronounce also considering those who are still in grade ten and the position of English in Indonesia which is used as an English Foreign Language (EFL). Even in some public schools in the village that only apply English as a subject. This further reduces the opportunity for students to practice their pronunciation skills due to circumstances. This is the reason why must study more for pronunciation.

RESEARCH METHOD

The research design which will use in this research is correlation method. In general, correlation research is a study that studies the relationship between 2 variables that are almost the same between the two but have no difference between the two, which is a research that has a quantitative method where this method has two or more variables from two groups of subjects and where the researchers try to find out whether there is a relationship between the two, (Mayasari,2012). Correlation is a statistical term describing the degree to which two variables move in coordination with one another. If the two variables move in the same direction, then those variables are said to have a positive correlation. If they move opposite direction, then they have a negative correlation. Correlation method use for knowing two variables or more are related each other or not, to knowing is there any related between variable one and another.

In addition to looking for the relationship between one variable and another, the concept of correlation itself is to look for hypotheses that are likely to be found in research based on this method. The hypothesis in question is the possibilities that will occur during this research, thinking or speculating about the research that is appointed so that new findings are obtained regarding the relationship between variables.

In correlation, hypothesis can be negative correlation or positive correlation. The possible range of values for the correlation coefficient is -1.0 to 1.0. In other words, the values cannot exceed 1.0 or less than -1.0. A correlation of -1.0 indicates a perfect negative correlation, and a correlation of 1.0 indicates a perfect positive correlation. If the correlation coefficient is greater than zero, it is a positive relationship. Conversely, if

The value is less than zero, it is a negative relationship. A value of zero indicates that there is no relationship between the two variables.

In this research, the researcher used mean score to know result for the speed rate test and their fluency in pronunciation. In this research, variable X was " speed rate" score, while Y was "pronunciation".

Because this study aims to find a relationship and prove the hypothesis of a relationship between two variables, so the researcher will use Pearson Product Moment formula to analyze coefficient correlation (r) between two variables. Based on Sugiyono (2019) the formula was:

$$r = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{[n\Sigma x^2 - (\Sigma x)^2][n\Sigma y^2 - (\Sigma y)^2]}}$$

Σxy = The sum of the product of paired X and Y scores

N = Number of cases or subject

$\sum x$ = The sum of the X score

$\sum y$ = The sum of the Y score

$\sum x^2$ = The sum of the squared X score

$\sum y^2$ = The sum of the squared Y score

An explanation of the correlation value of r, the resulting product moment can be seen based on the table listed below:

Table 1. The Degree Guidelines of Product moment Correlation

"r" values of product moment correlation	Interpretation
0,00-0,20	No Correlation
0,21-0,40	Low Correlation
0,41-0,60	Medium Correlation
0,60-0,80	Strong Correlation
0,81-1,00	Very Strong Correlation

Scoring

For the pronunciation assessment, the following is a scoring rubric based on Dji-wanjono (2008):

Table 2. Scoring Rubric of Pronunciation Test

INTELLIGIBILITY	4	Produces clear sound in every word.
	3	Produces a very few unclear sound in certain word.
	2	Produces some unclear sound in some words.
	1	Most of the words are produced unclearly.
FLUENCY	4	The whole text is pronounced fluently without any hesitation.
	3	The whole text is pronounced fluently, but there is little hesitation.
	2	Pauses for a while in some words showing hesitation.

	1	Too many causes in most of the words showing hesitation.
ACCURACY	4	Pronounces the whole words of the text accurately and doesn't cause any misunderstanding.
	3	Pronounces nearly whole words accurately and only few word pronounced inaccurately. Doesn't cause any misunderstanding.
	2	Pronounces almost a half part of the words constructing the text so that it causes little misunderstanding.
	1	Most of the words are pronounced inaccurately so it causes misunderstanding.
INTONATION	4	Produces correct intonation tune in the whole sentences of the text.
	3	Produces incorrect intonation tune in a few sentences of the text.
	2	Produces much incorrect intonation tune in the sentences of the text.
	1	Almost all of the sentences in the text are said with incorrect intonation tune.
STRESS	4	Uses good stress in each word and no error.
	3	Uses good stress but misuses in a few word that causes few error.
	2	Uses much incorrect stress that causes some error.
	1	Uses stress incorrectly in most of the words that causes definitely much error.

(Adapting from Djiwandono(2008))

The score gets from the formula below:

$$N = n \times 5$$

N = The score of students' pronunciation test
n = The number of correct words' pronunciation

Table 3. Level of Score Final Score

Final Score	Category
90-100	Very Good
80-89	Good

70-79	Average
60-69	Poor
≥60	Very Poor

As for the speech rate assessment, it will be assessed using the measurement scale that has been written down, namely with the formula:

$$\frac{W}{T} \: X \: 60$$

Where:

W : Number of words read

T : Length of reading time (in seconds)

There was one test which includes 2 assessments at once where the assessment is about speech rate and pronunciation. The use of the test in this research is reading text. The application of this reading test is with a predetermined sample reading the narrative text that has been provided by the researchers. The data was recorded by the researches while the students read the text

Hypothesis

The hypothesis that we can know from this research are:

Ha : There is correlation between speech rate and pronunciation

Ho : There is no correlation between speech rate and pronunciation.

So from the hypothesis that has been written previously, Ha can be accepted if the value of Ho = 0 and Ha can be accepted if the value of Ha ≠ 0 (ρ = symbol that indicates the strength of the relationship) where maybe the value of Ha is greater than zero or smaller from zero (Sugiyono, 2019)

FINDINGS AND DISCUSSION

After conducting research by researchers in the tenth grade at SMA Negeri 1 Padangan by giving a test, in the form of a reading test. The data that has obtain the sample which contain of 23 students. Which this result has been obtained by calculating the number of samples using the Slovin formula. Here is Slovin's formula:

$$n = \frac{N}{N(d)^2 + 1}$$

Where :

N : population

n : sample

d : 80% precision value or sig = 0.2

From the Slovin method used and a population of approximately 320 students, the desired error rate is 20% (0.2), so the number of samples that will be needed in this study are:

$$n = \frac{320}{320(0,2)^2 + 1} = 23.188 = 23 \text{ sample}$$

The analysis was carried out to obtain a score of pronunciation and speech rate based on the scoring rubric that had been previously written. The following is the value obtained after analyzing the data.

Table 4. Scoring Result

No.	Name	Speech Rate Score (x)	Pronoun Score (y)
1.	AEA	165	90
2.	AM	104	55
3.	ASN	167	90
4.	AAQ	144	75
5.	ASQ	134	85
6.	AASB	96	60
7.	AMA	108	60
8.	CRZ	180	95
9.	CSN	126	60
10.	CSD	147	90
11.	DMRA	103	50
12.	DIEBS	155	75
13.	ERW	125	75
14.	EFJ	188	60
15.	EO	134	65
16.	FAI	193	65
17.	FF	144	80
18.	FTK	142	55
19.	HAT	128	75
20.	IFZ	101	60
21.	JAPS	141	75
22.	LL	136	65
23.	MWA	150	60

From the data that has been obtained then it is entered into the correlation formula using the Pearson Product Moment formula to find out how big the correlation is between pronunciation and reading speed, as written below:

$$r = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{[n\Sigma x^2 - (\Sigma x)^2][n\Sigma y^2 - (\Sigma y)^2]}}$$

$$r = \frac{23(230.010) - (3211)(1620)}{\sqrt{[23(464557) - (3211)^2][23(117.900) - (1620)^2]}}$$

$$r = \frac{5.290.230 - 5.201.820}{\sqrt{[10.684.811 - 10.310.521][2.711.700 - 2.624.400]}}$$

$$r = \frac{88.410}{\sqrt{[374.290][87.300]}}$$

$$r = \frac{88.410}{\sqrt{32.675.517.000}}$$

$$r = \frac{88.410}{180.764}$$

$$r = 0,49$$

From the value of r obtained, we can see that the correlation of pronunciation and speech rate is 0.49. Based on The Degree Guidelines of Product moment Correlation that has been written above, the correlation of these two variables is included in the correlation medium.

When the analysis was carried out, not a few of them accelerated their reading without paying attention to the pronunciation accuracy and some maximized their efforts in pronunciation. Then get the data which has been listed above.

This happens because based on the data that has been analyzed, not all pronunciation of the sample is affected by speech rate. Because there are samples that does has a good pronunciation and with a fairly high in their speech rate. The opposite is also happened where there is a sample whose pronounce is lacking so that he reads it slowly and makes their speech rate very low. However, we can also find samples whose pronouns are directly proportional to the speech rate. Where those who slowly read the pronunciation the better and where the faster speech rate more worst pronounce which produced.

Based on the explanation of the results obtained above, it can be concluded that there is a correlation between speech rate and pronunciation. When viewed from the results obtained, not only speech rate and pronunciation are correlated, but there are other variables that also influence. So the result obtained is that the correlation of these two variables is not too high, which is in the medium correlation.

This is the diagram of the result:

Table 5. The Scatter Diagram Result
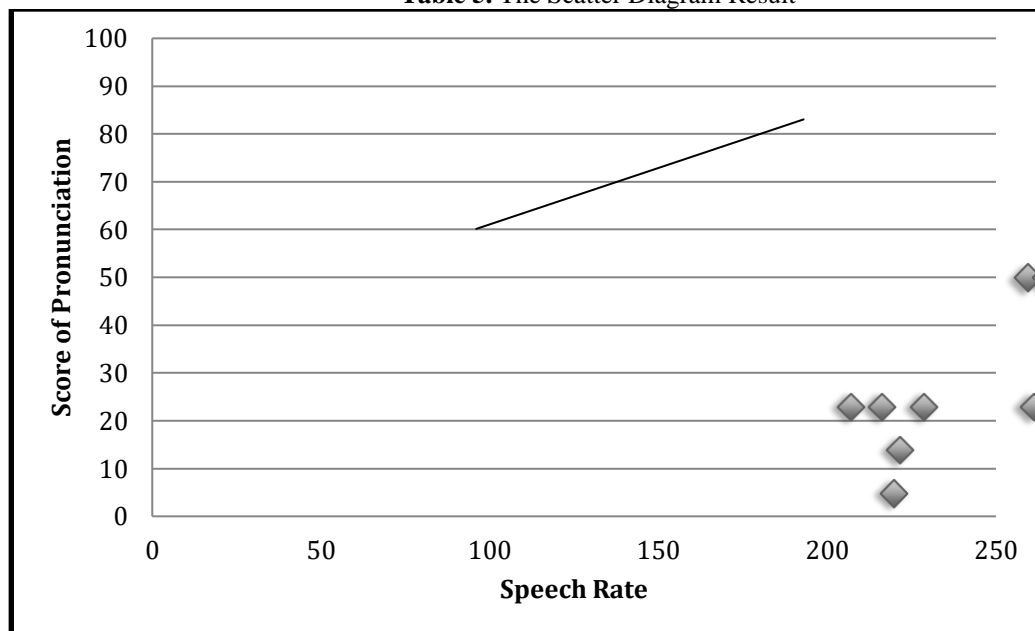
From the diagram we can see that the result is positive correlation. So, the hypothesis that has been written is accepted because Ha ≠ 0, where Ha = 0,49

CONCLUSION

From the explanation described above, it shows that pronunciation in students is not only correlated with speech rate. The result which showed between speech rate and pronunciation is medium correlation. This can also be an indication that there are other factors that also affect students' pronunciation so that the correlations they produce are not all directly proportional.

ACKNOWLEDGEMENT

Thanks to Allah Swt. who has given grace so that this article can be completed without any major obstacles. The researcher is also grateful to the research supervisor who always supports the researcher when conducting research. Researchers are also grateful to all who have been involved in providing support. The researcher hopes that this article can be useful for readers and other researchers.

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