



## Local Language Phonological Constraint-Based in Learning Pronunciation of English: An Experimental Study of English Department

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**Abstract:** This study aims of finding out whether local language phonological constraint based is effective to help Bimanese English students of English department of university of Mataram in learning standard English pronunciation. The data were collected through questionnaire to 15 Bimanese English students as the respondents. The questionnaire contained 60 items which are categorized into linguistics kinds from words, phrases, and sentences. The test was assessing the student pronunciation of middle central vowel [ə] [ɜ] and alveolar stop consonant [d] and [t] which are considered difficult fear the Bimanese speakers due to their absence in Bimanese phonological inventory. Deployment the questionnaire was conducted offline and the data collection was carried out online through Spada. The data analysis was carried out by using t-test by comparing the initial competence (pretest) and the final competence (posttest) of students between the experimental class and the control class. Based on the analysis, two conclusions were obtained. First, there are 7 students who obtained the high score from 60 to 66. There are also 7 students who obtained the middle score from 50 to 56 and 1 student who obtained the low score which is 40. From each problem sounds above, most of them are still difficult pronounce sound [t] and some of them are still moderate on sound [ə][ɜ][d]. Second, there are 9 students who obtain the high score from 80 to 93. There are also 4 students who achieved a score 70-78 and there are 2 students who got low score from 60 to 68. From the data above, there is a change in their pronunciation especially the sound problematic in English students so that they can achieve good scores.

**Keywords:** Bimanese English Student, Pronunciation, Local Language, Phonological Problem.

**Abstrak:** Penelitian ini bertujuan untuk mengetahui apakah berbasis kendala fonologis bahasa lokal efektif untuk membantu mahasiswa bahasa Inggris Bima dari jurusan bahasa Inggris Universitas Mataram dalam belajar pengucapan bahasa Inggris standar. Data dikumpulkan melalui kuesioner kepada 15 siswa bahasa Inggris Bima sebagai responden. Kuesioner berisi 60 item yang dikategorikan ke dalam jenis linguistik dari kata, frase, dan kalimat. Tes tersebut menilai pelafalan vokal tengah tengah [ə] [ɜ] dan konsonan langkah alveolar [d] dan [t] oleh siswa yang dianggap sulit untuk ditakuti oleh penutur bahasa Bima karena tidak ada dalam inventarisasi fonologis Bima. Penyebaran kuesioner dilakukan secara offline dan pengambilan data dilakukan secara online melalui Spada. Analisis data dilakukan dengan menggunakan uji-t dengan membandingkan kompetensi awal (pretest) dan kompetensi akhir (posttest) siswa antara kelas eksperimen dan kelas kontrol. Berdasarkan analisis, diperoleh dua kesimpulan. Pertama, ada 7 siswa yang

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memperoleh nilai tinggi dari 60 sampai 66. Ada juga 7 siswa yang memperoleh nilai tengah dari 50 sampai 56 dan 1 siswa yang memperoleh nilai rendah yaitu 40. Dari setiap soal diatas, sebagian besar mereka masih sulit melafalkan bunyi [t] dan sebagian dari mereka masih sedang dalam bunyi [ə][ɜ][d]. Kedua, ada 9 siswa yang mendapat nilai tinggi dari 80 sampai 93. Ada juga 4 siswa yang mendapat nilai 70-78 dan ada 2 siswa yang mendapat nilai rendah dari 60 sampai 68. Dari data di atas, terdapat adalah perubahan pelafalan mereka terutama bunyi yang bermasalah pada siswa bahasa Inggris sehingga mereka dapat mencapai nilai yang baik.

**Kata Kunci:** Siswa Bahasa Inggris Bima, Pengucapan, Bahasa Daerah, Masalah Fonologis.

## Introduction

Learning English pronunciation is very important for students, especially for students of English study programs who have a local language background which is a different sound from the sound of English. According to the meaning contained in the European Charter for Local or Minority Languages, it refers to languages originally spoken in the territory of a country, by nationals of that country, whose quantity is smaller than the rest of the population in that country and that is not an official language in the country. Local language is Several studies have shown that the influence of local languages in producing English sounds is quite significant, although this influence differs from one local language to another (Arafiq, Yusra, & Saputra, 2019); Arafiq, Hanafi, Baharuddin, Azis, 2010). The same thing stated by Avery and Ehrlich (1992) who said that variations in English accents were strongly influenced by the background of the speaker's mother tongue. This can be seen from the existence of the terms Spanish accent English, Chinese accent English, English accent Japanese which are always referred by native English speakers to non-native speakers. The term accent has various meanings, but in speaking, an accent is an identifiable style of pronunciation, often varying regionally or even socioeconomically. This means that errors in pronouncing the sounds of a foreign language are not solely caused by unsystematic efforts but it is due to the reflections on the sounds of words, the rules for combining sounds, as well as the stress and intonation patterns of the mother tongue owned of the speaker (Swan & Smith, 1987).

Bimanese English student also found it difficult in pronunciation of certain sounds in English. The difficulties are caused the difference between the sound of English and the sounds of local language as the mother tongue of students. Mother tongue, also referred to as native language or first language, is a language that human control from birth through interaction with fellow of their language community, such as their family and community. In addition, students who speak local languages in West Nusa

Tenggara, the influence of mother tongues still become restriction in the pronouncing or particular English sounds (Arafiq, et al., 2019). Students who speak the Bima language have difficulty in pronouncing English words that contain low middle vowel /ə/ which may be pronounced as high back vowel /e/ or a high front vowel /i/. These facts were further exacerbated by the attitude of the speaker who sometimes are resistance to pronounce English sounds due to fearness of being wrong and being laughed at by other students. In this regard, Zhang (2009) said that attitudes towards the target language can affect the achievement of proper sound pronunciation.

Given how strong the influence of local languages on foreign language learning, especially English, it is necessary to have an English learning model that accommodates the difficulties experienced by students who speak local languages in pronouncing English sounds. Ahmadi, N., Hanafi, N., Aziz, A. D., & Arafiq. (2021) offer a pronunciation learning model based on local language phonological constraints in pronouncing standard English.

## Method

This research is a type of quantitative descriptive research (Sugiyono, 2014) that uses an experimental method (Helaluddin, 2018). Descriptive research method according to Sugiyono (2018, p. 86) is a study conducted to determine the value of independent variables, either one or more (independent) variables without making comparisons or connecting with other variables. This means that this study only wants to know how the state of the variable itself is without any influence or relationship to other variables such as experimental research or correlation. This study to test the depth of a model for learning English pronunciation based on the phonological constraints of local languages in NTB which is Bima language in the S1 Study Program of English Education by looking at the design of this study, the analysis used is simple statistics.

The targeted population for this research is the Bimanese English students of third semester of university of Mataram.

The sample taken were about 15 students of third semester of English Department. The sampling method used in this research is purposive sampling. Purposive sampling is one of non-probability sampling where the researcher determines the characteristics based on the research objective that the researcher wants to aim to answer the research problem.

Kinds of data in this study is some words, phrases and sentences with local language (Bimanese).

The source of data is derived from students of English Department of university of Mataram. In collecting data, the writer got involved in the observation, questioner, recording.

At the implementation stage, this research activity begins by giving questionnaires to respondents. The data obtained were tabulated quantitatively and analyzed using t-test. Sugiyono (2013, p. 207) stated, "In quantitative research, data analysis is an activity after data has been collected from all respondents or other data sources collected. Data collected from observations researchers and informants through questionnaires and recordings conducted by researchers. Then analyzed quantitatively. The steps taken in analyzing data is as following: (a) Collecting the results of the questionnaire (b) listen to the recording carefully, Selected data according to focus research, (c) Interpreting and analyzing data, (d) describing research results and draw conclusions.

### Result and Discussion

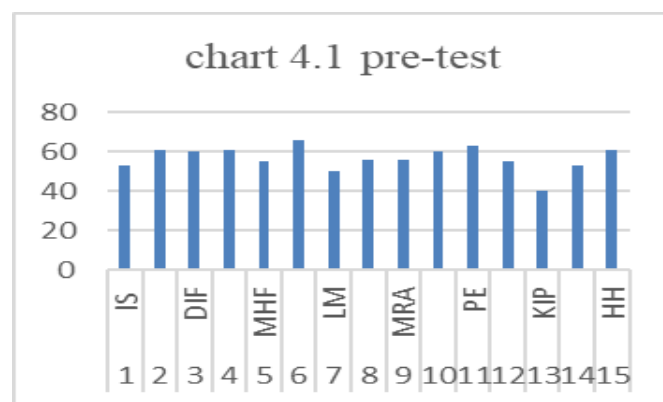
This study aims to find out the local language phonological constraint based effective in learning model of Bimanese English students of third semester of University of Mataram. In gathering the data, the writer employed the following methods; observation, questioner, and recording. In this chapter, the writer lists the data found in learning model of Bimanese English student of third semester of university of Mataram.

From the finding of pronunciation which exist in third semester of Bimanese English student above, this study indicated that there are 4 (four) types of local language problem. It consists of sound [ə], [ɜ], [d], [t].

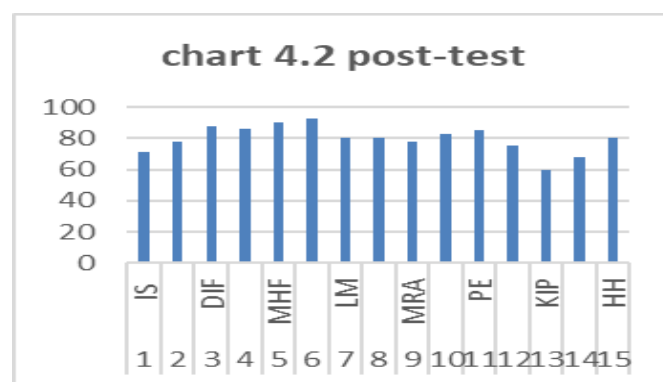
This research is quantitative which the data generated by numeric. From the data obtained, an analysis was carried out using T-test. This study aims to apply an effective phonological constrain - based local language learning model in Bimanese English student for third semester of University of Mataram. Based on the objectives, the data were collected by

means of a questionnaire as many as 15 respondents. The target is Bimanese English student of 3rd semester at the University of Mataram. Deployment The questionnaire was conducted offline and the data collection was carried out online through Spada. The questionnaire contained 60 items which are categorized into three broad area includes words, phrases, and sentences. These findings are in accordance with English education in third semester, especially Bimanese students who have difficulty pronouncing [ə] [ɜ] [d] and [t].

The results of Bimanese English student are contribution are presented in the chart 1 and chart .2 below:



The chart 4.1 shows that there are 7 students who obtained the high score (60-66). There are also 7 students who obtained the middle score (50-56) and 1 student who obtained the low score (40). Most of them still difficult in pronouncing that sound.



The chart 2 shows that there are 9 students who obtain the high score (80-93). There are also 4 students who achieved a score 70-78 and there are 2 students who got low score (60-68). From the chart above, there is a change in their pronunciation especially the sound problematic in English students so that they can achieve good scores.

From the results of these data can be interpreted in several categories, as follows:

**Table 1 Pre-test and post-test Variable Score Interpretation Categories**

value range	categories
40-60	low
60-78	moderate
78-93	high

According to Singgih Santoso (2014), the data is to be normally distributed (symmetric) in the Shapiro Wilk test if the sig. >0.05

**Case Processing Summary**

	Cases					
	Valid		Missing		Total	
	N	Perc ent	N	Perc ent	N	Perc ent
pre-test	15	100.0%	0	0.0%	15	100.0%
post-test	15	100.0%	0	0.0%	15	100.0%

**Tests of Normality**

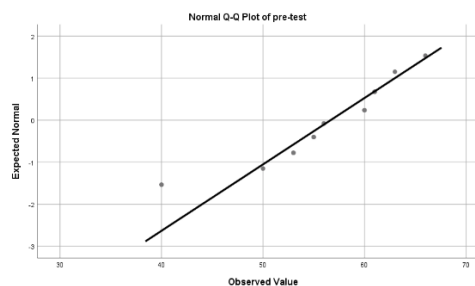
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Stati stic	df	Sig.	Stati stic	df	Sig.
pre-test	.167	15	.200*	.911	15	.140
post-test	.157	15	.200*	.964	15	.768

\*. This is a lower bound of the true significance.  
a. Lilliefors Significance Correction

Based on the results of the normality test it is known that the significant value of the pre-test is .140>.05 and the post-test is .768>.05, then as the basis for decision making in the Shapiro Wilk normality test, it can be concluded that the research data is normally distributed.

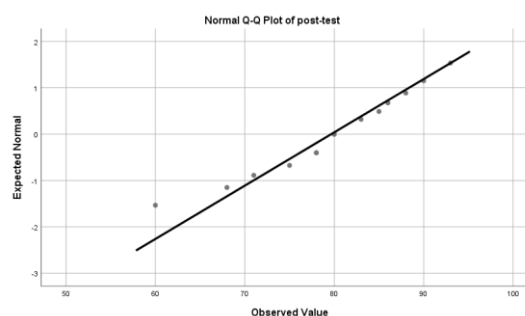
There are several ways detect normality by looking at the spread of data (points) on the diagonal axis of the graph. The basis for decision making in the

normality test can be seen from the scatter plot results in the figure 3 and figure 4 below:



Source: SPSS Processed Data, 2022

Figure 1 pre-test chart



Source: SPSS Processed Data, 2022

Figure 2 post-test chart

Based on Figure 1 and Figure 2 about the distribution of scatter plots, the data are distributed spreads around the diagonal line and follows the direction of the diagonal line, then the regression fulfills normality assumption.

**Paired Samples Statistics**

Pair	Mean	N	Std. Deviation	Std. Error Mean
1 pre-test	56.6667	15	6.33208	1.63494
1 post-test	79.6667	15	8.69866	2.24598

**Paired Samples Correlations**

Pair	N	Correlation	Sig.
1 pre-test & post-test	15	.791	.000

		Paired Samples Test							
		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	pre-test - post-test	-23.0000	5.34522	1.38013	-25.96009	-20.03991	-16.665	14	.000

From the first table it can be seen that the number of subjects at the pre-test and post-test were both 15. The average student at the pre-test was 56.66 while at the post-test was 79.66. From this we can see that the post-test is higher than the pre-test.

The second table shows the correlation between measurements during the pre-test and post-test. From the output it can be seen that  $r=0.79$  with  $p<0.05$ . Thus, there is a significant positive correlation between the measurements during the pre-test and during the post-test. This shows the alignment of the pre-test and post-test data.

The main output from the independent sample t-test analysis is in the third table. To test the hypothesis, we can look at the column to the right. From the results of the analysis, the value of  $t = -16.66$  was obtained with  $p < 0.01$ . The benchmark for assessing the t test is as follows.

- If sig:  $p > 0.05$  then there is no difference.
- If sig:  $p < 0.05$  then there is a difference at the sig level of 5%
- If sig:  $p < 0.01$  then there is a difference at the sig level of 1%

Thus, it can be concluded that there is a significant difference in the level of pronunciation between the pre-test and the post-test ( $t = -16.66$   $p<0.01$ ). The mean shows the mean difference between the pre-test and the post-test. From the results of the analysis, the mean is -23.00. So, the post-test is higher than during the pre-test.

Based on the table paired sample t test significant value (2-tailed) .000 less than .05 indicates a significant difference between variable 1 (pre-test) and variable 2 (post-test). This shows that there is a significant effect on the difference in the treatment given to each variable.

The 95% confidence interval of the difference is the range of tolerable difference values. In the case of

this analysis, this tolerance uses a 95% confidence level, so with a 95% confidence level the range of differences in the concentrations of the control and experimental groups is 40 to 93. Thus, it can be concluded that local language phonological problem based effective in learning model of Bimanese English students.

Results should be clear and concise. The discussion should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature. From the results of the tests conducted, it is evident that there is a significant difference in the pronunciation level of Bimanese English students between the pre-test and post-test ( $t = -16.66$   $p<0.01$ ).

Local language-based pronunciation learning is intended to help increase the awareness of local language speakers about the obstacles they face in learning English. Ahmadi, et al., (2021) say that speakers of local languages need to be given a learning model that focuses on English sounds that are not found in their local language sound repertoire.

The results of this literature study indicate a positive and effective influence on learning local language phonological constraints-based for Bimanese English students. It means, the easier the use local language phonological constrain-based for Bimanese English student will increase and be more effective in their pronunciation. An example of data above, in chart 4.1 (pre-test), there are 7 students who obtained the high score 60-66. There are also 7 students who obtained the middle score 50-56 and 1 student who obtained the low score 40. from each problem sounds, bimanese students are still difficult pronounce sound [t; stop] and some of them are still moderate on sound [ə; department] [ɜ; girl] [d; desk], etc. The difficulties are caused the difference between the sound of English and the sounds of local language as the mother tongue of

students. Renaldi, et al. (2016) conducted research on the effect of mother tongue phonology on learning English, especially speaking skill competence. Then, an example of the data in chart 4.2 (post-test), there are 9 students who obtain the high score from 80 to 93. There are also 4 students who achieved a score from 70 to 78 and there are 2 students who got low score from 60 to 68. There is a change in their pronunciation especially the sound problematic in English students so that they can achieve good scores.

Therefore, it is very important for Bimanese English students in learning phonology to improve the effectiveness of pronunciation, so that Bimanese English student do not experience difficulties in pronunciation, especially on sound [t] [ə] [ʒ] [d]. According to Muslich (2008:1), phonology is a linguistic study that studies the sounds of words.

The effectiveness felt by Bimanese English students in learning phonology can be seen from how the learning is able to carry out continuous pronunciation exercises, so as to minimize problem sounds for them. Finally, Bimanese English students find it easy to do pronunciation, especially in problem sounds through learning phonology, so that they can apply the local language into phonology without experiencing much trouble.

Based on the results of the research above, it is effective that the learning pronunciation based on local language phonological makes it easier for bimanese English students to pronounce English words.

## Conclusion

Based on the data analysis that has been done, the experimental method is used effect on the learning model (pronunciation) for Bimanese English students. Then it can be concluded the results of the test calculations hypothesis with the help of the SPSS 25 for windows program with using the T-test analysis at the 1% significance level, there is a significant difference in the level of pronunciation between the pre-test and the post-test ( $t = -16.66$   $p < 0.01$ ). The mean shows the mean difference between the pre-test and the post-test. From the results of the analysis, the mean is -23.00. So, the post-test is higher than during the pre-test. Based on the table paired sample t test significant value (2-tailed) .000 less than .05 indicates a significant difference between variable 1 (pre-test) and variable 2 (post-test). This shows that there is a significant effect on the difference in the treatment given to each variable. Then  $H_a$  accepts and  $H_o$  is rejected.

This shows that the alternative hypothesis ( $H_a$ ) which reads there is influence the experimental method of the learning pronunciation for Bimanese English

students is accepted, while the zero hypotension ( $H_o$ ) which reads no there is an effect of the experimental method on the learning pronunciation for Bimanese English students is rejected.

The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section

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