

## A PHONOLOGICAL ANALYSIS ON MADURESE ENGLISH STUDENTS' PRONUNCIATION IN READING AN ENGLISH TEXT

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**Abstrak.** Studi ini memfokuskan pada analisis fonologi pada pengucapan Bahasa Inggris mahasiswa Madura dalam membaca teks bahasa Inggris. Penulis mengidentifikasi jenis pengucapan oscillografik bahasa Inggris yang dihasilkan oleh mahasiswa Madura dalam membaca sebuah teks bahasa Inggris, perbedaan pengucapan oscillografik bahasa Inggris antara mahasiswa Madura dan penutur asli bahasa Inggris dalam membaca teks bahasa Inggris dan bagaimana karakteristik bahasa Madura mempengaruhi pengucapan Bahasa Inggris mahasiswa Madura. Untuk mengumpulkan data, ia mengamati dan merekam pengucapan bahasa Inggris mahasiswa Madura dengan menggunakan MP4 kemudian menganalisisnya secara deskriptif dengan menggunakan program Praat versi 4027. Kemudian, ia menemukan bahwa pengucapan oscillografik Subjek 2 dan Subjek 3 bila dibandingkan dengan subjek 1 itu berbeda dan membuat arti yang berbeda, tapi kadang-kadang tidak. Selain itu, ditemukan bahwa karakteristik bahasa Madura mempengaruhi mereka dalam membaca teks bahasa Inggris. Oleh karena itu, mereka membuat beberapa perubahan bunyi: vokal, konsonan dan diftong. Selain itu, mereka juga membuat *deletion* (penghapusan) dan *addition* (penambahan). Dia menyimpulkan bahwa pengucapan mereka tidak dapat dimengerti karena mereka sering salah ucap.

**Kata kunci:** Pengucapan Oscillografik, mahasiswa Madura, karakteristik bahasa Madura.

**Abstract.** *The study focuses on the analysis of phonology on Madurese English students' pronunciation in reading an English text. The writer identified kinds of English oscillographic pronunciation made by Madurese students in reading an English text, the differences of English oscillographic pronunciation between Madurese students and that of the English native speaker in reading an English text and how Madurese language characteristics influences Madurese English students' pronunciation. To collect the data, she observed and recorded the Madurese English students' pronunciation by using MP4 then analysed it descriptively by using Praat program version 4027. Then, she found that the oscillographic pronunciation of Subject 2 and Subject 3 when it is compared to subject 1 is different and makes different meaning, but sometimes not. Furthermore, it is found that Madurese language characteristics influence them in reading the English text. Therefore, they made some sound changes: vowel, consonant and diphthong. Moreover, they also made deletion and addition. She concludes that their pronunciation is unintelligible because they often make mispronunciation.*

**Keywords:** *Oscillographic Pronunciation, Madurese English students', Madurese English characteristics*

### INTRODUCTION

In learning English, students have to learn how to use English with correct pronunciation. It is important for them to have correct pronunciation of English in order to

avoid misunderstanding. In fact, there are some of students in Indonesia that still have problems of English pronunciation. They are influenced by their mother tongue. It can be seen through two Madurese English students. They have

problems in pronouncing the English words. This phenomenon occurs because of the interference of their mother tongue (especially local or regional languages) that is Madurese Language. The interference of the mother tongue has come into main consideration since language transfer plays an important role. In this case, the English students have to face that one factor which provides difficulty in acquiring English language as their second or foreign language is the students' first language (L1). In producing speech, they use L1 pattern or rule that leads to inappropriate form in the target language. The use of L1 pattern in the production of L2 is known as 'negative transfer' or 'interference' (Richards, Platt & Weber, 1992: 160). Interference mostly occurs because their knowledge about L2 is incomplete (Kormos, 2006: 26). Therefore, in producing speech of L2, it is important to master the knowledge about it. Seeing the phenomena above of the two Madurese English students in making mispronunciation due to the difficulties provided by English pronunciation and the influence of their first language, the writer is eager to learn more about this problem.

## **REVIEW OF RELATED LITERATURE**

According to Odden (2006: 2), pronunciation is regarded as the primary part of the structure of a word. The main reason for that idea comes from the knowledge that one of the important features of the structure of a word is how that word is pronounced. For that reason, Odden (2006: 2) relates pronunciation to the

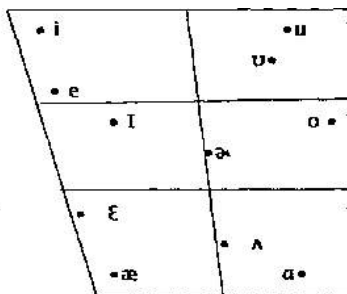
foundation areas of linguistics that deals with scientific study of the language structure, that is, phonology. Phonology deals with the linguistic patterning of sounds in human languages, while phonetics is the study of the aspects of speech (Robins, 1989: 77). Phonetics is a science which focuses on the characteristic of human sound-making; especially sounds used in speech, and provide methods for their description, classification, and transcription (Crystal, 1997: 289). In other words, Brown (2005: 3) emphasizes on the accuracy of speaking due to the fact that even if someone is fluent in conveying what he / she has in mind, it does not mean that others will directly understand what he / she is saying. Since the accuracy in pronouncing words is essential, English students should pay more attention on the way they articulate foreign words and master pronunciation of a language they are learning.

According to Jones (1987: 25-26) English consonants can be classified based on the organs which articulate them (the place of articulation). Based on the place of articulation, consonants can be distinguished into seven main classes as the following.

**Table 1. English Consonants Based on Manner of Articulation and Place of Articulation (Jones, 1987: 26)**

	Labial		Dental	Alveolar	Palato-alveolar	Palatal	Velar	Glottal
	Bilabial	Labiodental						
Plosive	□ ∂			◆ ʀ			⊗ ʁ	⊔
Affricate					◆ ʃ ʒ ʧ ʤ			
Nasal	○			■			⊗	
Lateral				●			(●)	
Rolled				[□ ]				
Flapped				[□ ]				
Fricative		↗ ◆	⊗ ʃ	◆ ʃ	□ ʃ ʒ ʧ	● ʃ		⊔
Semi-vowel	◆					er	(◆)	

English vowels are conventionally differentiated from consonants by reference to their articulation. Whereas with consonants the speech organs restrict the air flow in some manner, vowels are produced without any such restriction.



(Source: Handbook of the International Phonetic Association; A Guide to The Use of the International Phonetic Alphabet, 2000, Cambridge. Cambridge University Press. p.42)

**Figure 1. American English Monophthongs**

English has two kinds of diphthongs, they are rising and falling diphthongs. A diphthong consists of a preliminary on-glide followed by a syllabic vowel is called rising because the intensity of stress increases as the syllable goes on. On the other hand, a diphthong

consists of the syllabic vowel followed by an off-glide is called falling because the intensity of stress decreases. Falling diphthongs can be classified into three main groups according to the nature of the off-glide. These groups are: diphthongs with a mid or high front off-glide, diphthongs with a mid or high back off-glide, and diphthongs with a mid central off-glide.

The diphthongs with a mid or high front off-glide have as their syllabic element any one of the vowels except /ɰ/ and /◆/. They have as their off-glide one of the mid or high front vowels /ɰ, I, ε, ↔/. The off-glide is always higher than the syllabic vowel. Thus, the movement from the syllabic to off-glide is upward and forward, so that these diphthongs are also called fronting diphthong. The example





diphthong [ai] in [aɪ] ‘wear.

The Madurese diphthongs table with the examples is shown in appendix. According to Wahyuningrum (2006: 75) in her thesis finding, the characteristics of Madurese language are:

- a. The distribution of consonant [d] in Madurese language never occurs in the final
- b. There is no phoneme [z] in Madurese language, it is substituted by [s]
- c. In producing sound [v], it is referred to [f]
- d. [ʌ] and [ɔ] only happened finally or medially
- e. [ʃ] was often transferred to [t]
- f. In producing sound diphthong [ɔɪ], it is referred to [o]
- g. In producing sound diphthong [ɔɪ], it is referred to [ɔɪ]

These characteristics of Madurese language can influence the Madurese English students in pronouncing the English words.

In reading the English text, subject 2 and 3 is influenced by their accent. An accent is the systematic use of the same pronunciation as a whole by a particular group of people. It is restricted to the description of aspects of pronunciation which identifies where an individual speaker is from. When individuals from two different speech communities meet in a conversation, they are able to identify their differences by their accents. However, some speakers may have distinct or easily recognized type of accent, while others do not. Yet, every language user speaks with an accent. While

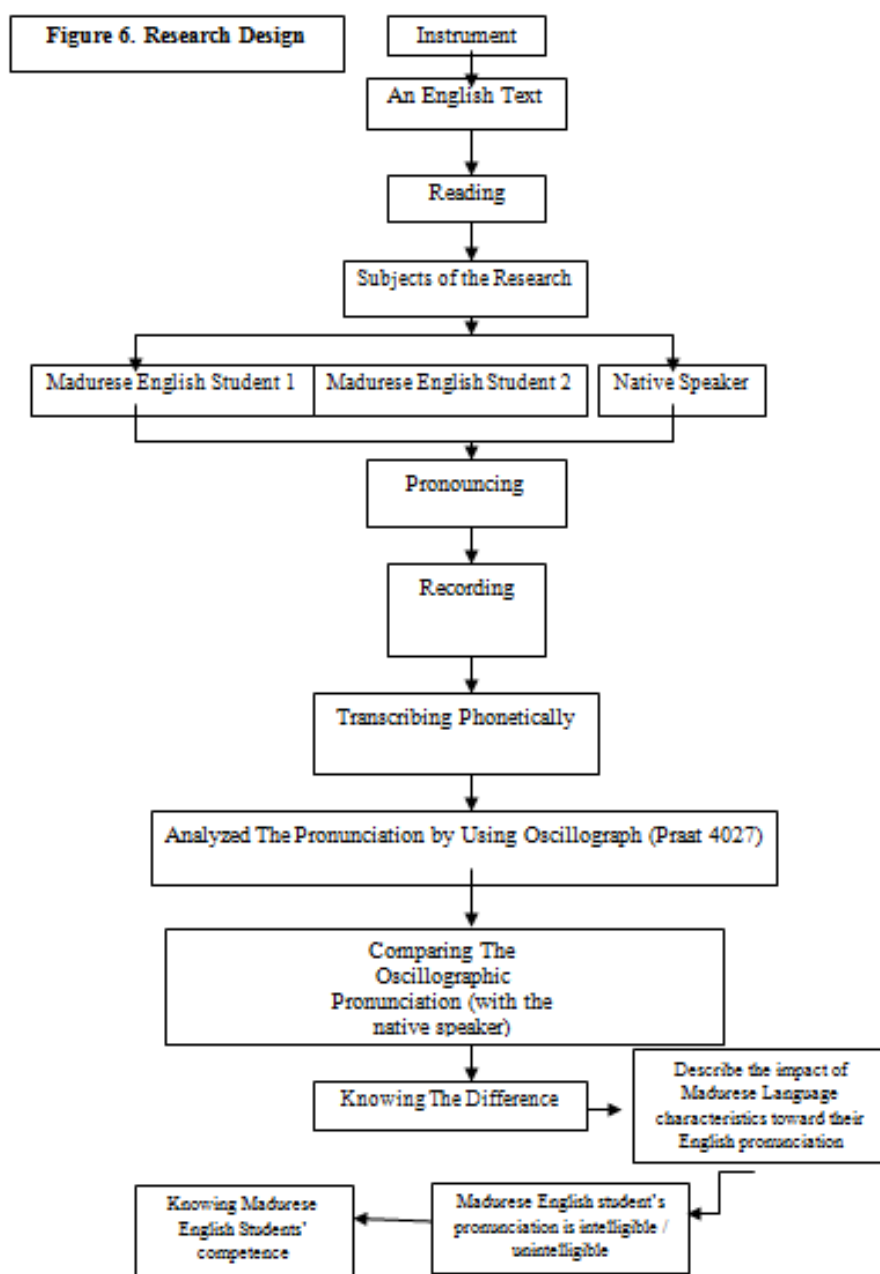
observing this problem deeper, the writer intends to observe the mispronunciation done by two Madurese English students. The main reason why the writer chooses them firstly arises from the fact that throughout her study, the writer notices that when they speak English, they produce inappropriate form in pronunciation and their accent is Madurese. To prove this, the writer asks them to read an English text and compares their pronunciation with an English native speaker's.

## METHOD

In this research, the writer uses a qualitative research approach. The reason is that this approach can help the writer in collecting and analyzing oscillographic pronunciation made by Madurese English students in reading English and compared to the native speaker. The subjects of the research are two Madurese English students (subject 2 and subject 3) and a native speaker (subject 1). Moreover, using this approach, the writer can know the differences of oscillographic pronunciation between Madurese English students and the native speaker in reading English text and describe how Madurese language characteristics influence their English pronunciation. Therefore, the writer does observation and recording of Madurese English students compared to the native speaker in reading an English text. The English text read is the text that they use to learn English in the nursing class with the same grade. In recording the data, the writer uses

MP4 recorder to record the pronunciation produced by the respondents. The pronunciation produced is transcribed phonetically and analyzed by using praat program 4027. Finally, the writer then uses a descriptive analysis method. It means that after

all of the collected data are analyzed qualitatively, the results of the analysis will then be interpreted descriptively and compared the oscillographic pronunciation among them. Furthermore, this research is conducted based on the research design as follow:



After collecting the data, the writer process the data by using phonetic analysis, which is structurally performed to refer to

articulatory phonetics that yield to segmentation of the speech sounds into smaller elements such as vowel, consonant or diphthong sounds based

on the sound changes. Next, she displays the data in the form of tables and oscillograms in order to classify the data. The data is classified based on the English pronunciation produced by Madurese English students and the English native speaker in reading the same English text. Then, the oscillographic pronunciation and phonetic transcription of Madurese English students and that of the English native speaker are compared. After that, she shows the characteristics of sound changes made by Madurese English students and what phonological process influences the sound changes. The tables are shown in appendix.

After displaying the data, she interprets the data in order to get the answer of the

research problems. At last, she makes a conclusion about kinds of oscillographic pronunciation made by Madurese English students in reading English text and compared to the English native speaker and the differences of it, and how Madurese language characteristics influence Madurese English students' pronunciation.

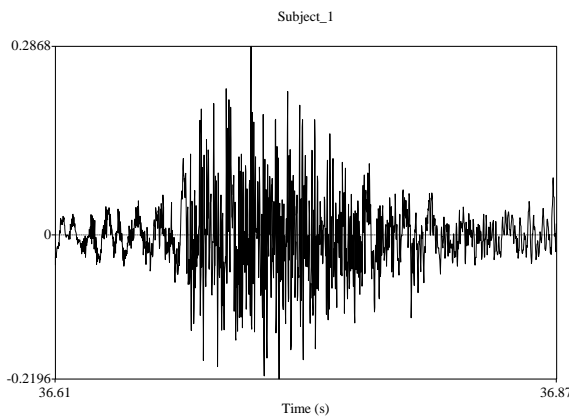
**RESULT**

Examples of different oscillographic pronunciation among 3 subjects in reading "Insomnia" English text:

Example 1:

**The Oscillograms of 'cause'**

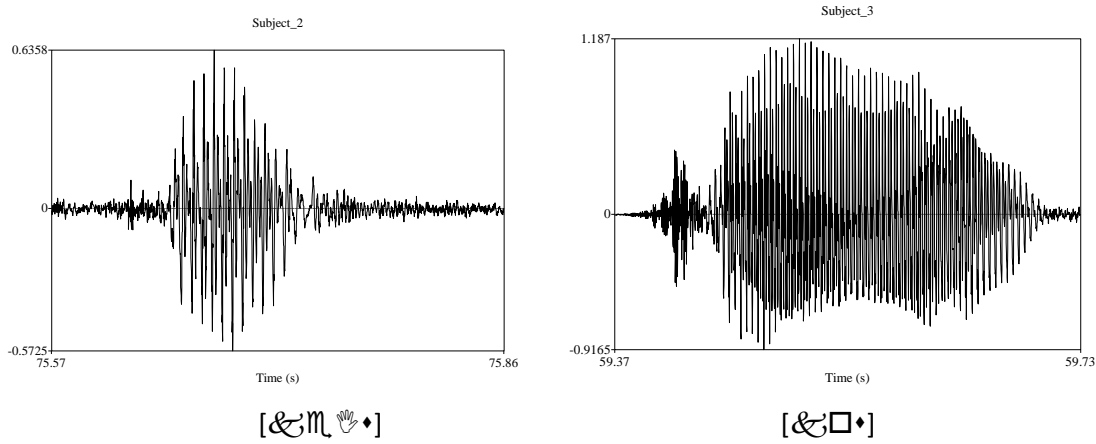
Subject 1 (Native Speaker)



Subject 2 (Madurese English Student 1)

Subject 3 (Madurese English Student 2)





**Figure 7. The Comparison of Oscillographic Pronunciation of ‘cause’**

Based on those three oscillograms above, we can see that subject 1 pronounces ‘cause’ with frequency -0,2196-0,2868 and time 0,16 second. When she pronounces ‘cause’ the harmonics of amplitude are weak in the beginning then strong, and after that weak again. It is shown in the graphic that the harmonics are faint and low then black and high, after that faint and low in the end.

Subject 2 pronounces ‘cause’ with frequency -0,5725-0,6358 and time 0,29 second. When he pronounces ‘cause’, the harmonics of amplitude are weak in the

beginning, then strong and weak again. It is shown in the graphic that the harmonics are low and faint in the beginning, then high in the middle and low again.

Subject 3 pronounces ‘cause’ with frequency -0,9165-1,187 and time 0,36 second. When she pronounces ‘cause’ the harmonics of amplitude are weak in the beginning, then strong and weak again. It is shown in the graphic that the harmonics are low in the beginning, then high in the middle and low again.

**The Pronunciation of ‘cause’**

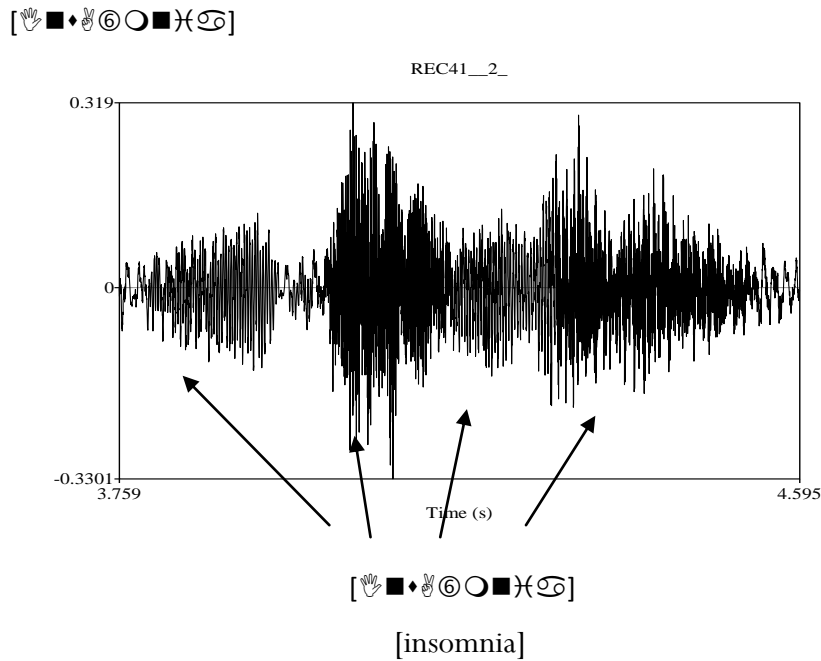
**Table 3. The Pronunciation of ‘cause’ by the three subjects**

Word	Subject	Pronunciation
What	S1	ʔʔɔ̃ʔ
	S2	ʔʔm̥ʔ
	S3	ʔʔɔ̃ʔ

From the table above, we can know that Subject 1 (S1) pronounces ‘cause’ with ʔʔɔ̃ʔ, Subject 2 (S2) pronounces ʔʔm̥ʔ, and Subject 3 (S3) pronounces ʔʔɔ̃ʔ. When S2 pronounces ‘cause’ with ʔʔm̥ʔ, vowel /ɔ̃/ → /m̥/ and consonant /ʔ/ → /ʔ/, it is influenced by the characteristics of Madurese language that /ɔ̃/ is substituted with /m̥/ and /ʔ/ is substituted with /ʔ/. When S3 pronounces ‘cause’ with ʔʔɔ̃ʔ, vowel /ɔ̃/ → /ɔ̃/ and consonant /ʔ/ → /ʔ/, it is

influenced by the characteristics of Madurese language that /ʃ/ is substituted with /ɕ/ and /ʒ/ is substituted with /ʒ/.

Subject 1 (Native Speaker)

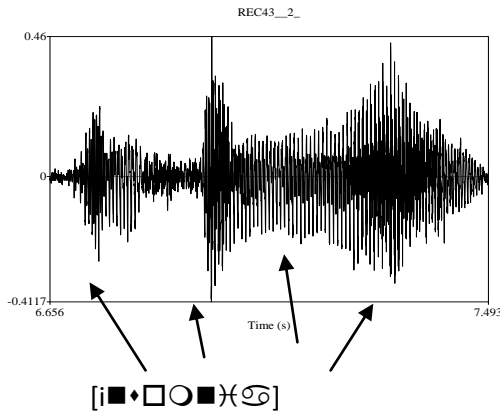


Subject 2 (Madurese English Student 1)

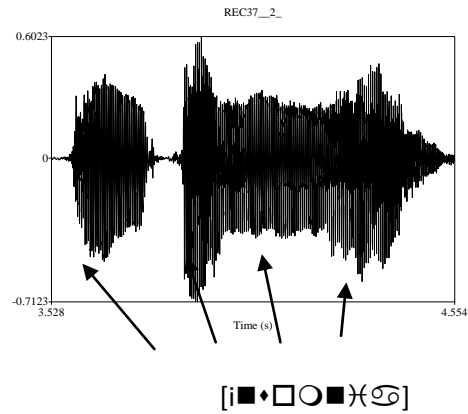
Subject 3 (Madurese English Student 2)

[i ɕ ʃ ɕ ɕ ʃ ɕ]

[i ɕ ʃ ɕ ɕ ʃ ɕ]



[insomnia]



[insomnia]

**Figure 8. The Comparison of Oscillographic Pronunciation of ‘insomnia’**

Based on those three oscillograms above, we can see that subject 1 pronounces ‘insomnia’ with frequency -0,3301-0,319 and time 8,36 second. When she pronounces ‘insomnia’ the harmonics of amplitude are weak in the beginning, strong in the middle

and followed with weak in the end. It is shown in the graphic that the harmonics are low in the beginning, starts rising, high in the middle then becomes falling and low in the end.

Subject 2 pronounces ‘insomnia’ while subject 1 does not. When she pronounces ‘insomnia’, she starts it with /i■/ and the harmonics of amplitude that are weak in the beginning and then falling and then there is a gap, followed with strong in the middle and then falling again in the middle, then rising in the end. It is shown in the graphic that the harmonics start rising when he pronounces /◆□○/ and the harmonics become strong in the middle, and then falling when he pronounces /■✕/ and followed with /☺/ that are rising in the end.

Subject 3 pronounces ‘insomnia’ with frequency -0,7123-0,6023 and time 1,026 second. She pronounces it word by word,

From the table above, we can know that Subject 1 (S1) pronounces ‘insomnia’ with အံ့ဗ်■◆ဗ်ဝ်■✕အံ့, while Subject 2 (S2) and Subject 3 (S3) pronounce ‘insomnia’ with /i■◆□○■✕အံ့. In this case, vowel/ဗ်/→/□/, it is influenced by the characteristics of Madurese language that /ဗ်/is substituted with /□/အံ့

1. In reading the English text entitled ‘insomnia’, it is found that:
  - a. for some words, the oscillographic pronunciation of Subject 2 and Subject 3 when it is compared to subject 1 is different and makes different meaning.

while subject 1 does not. When she pronounces ‘insomnia’, she starts it with /i■/ and the harmonics of amplitude that are weak in the beginning and then falling and then there is a gap, followed with strong in the middle and then falling again in the middle, then rising in the end. It is shown in the graphic that the harmonics start rising when he pronounces /◆□○/ and the harmonics become strong in the middle and then falling when he pronounces /■✕/ and followed with /☺/.

**The Pronunciation of ‘insomnia’**

**Table 4. The Pronunciation of ‘insomnia’ by the three subjects**

Word	Subject	Pronunciation
What	S1	အံ့ဗ်■◆ဗ်ဝ်■✕အံ့
	S2	/i■◆□○■✕အံ့
	S3	/i■◆□○■✕အံ့

For example, in pronouncing the word ‘cause’, Subject 1 (S1) pronounces with အံ့ဗ်ဗ်အံ့, Subject 2 (S2) pronouncesအံ့ဗ်ဗ်အံ့, it sounds like ‘case’ which has different meaning from ‘cause’, and Subject 3 (S3) pronounces အံ့ဗ်အံ့, it sounds like ‘coast’ which has different meaning from ‘cause’.

- b. for some words, the oscillographic pronunciation of Subject 2 and Subject 3 when it is compared to subject 1 is slightly different but it does not make different meaning. For example, in

pronouncing the word ‘insomnia’, Subject 1 (S1) pronounces ‘insomnia’ with  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$ , while Subject 2 (S2) and Subject 3 (S3) pronounce ‘insomnia’ with  $\text{[i] [n] [s] [m] [n] [i] [a]}$ . In this case, it does not change the meaning of ‘insomnia’.

2. Madurese language characteristics influence Subject 2 and Subject 3 in reading the English text entitled ‘insomnia’. In reading it, they made some sound changes: vowel, consonant and diphthong. Based on subject 2 and subject 3 in reading the English text compared to Subject 1, the sound changes are:

- a. the vowel changes:  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$ ;  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$ ,  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$ ,  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$ ,  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$ ,  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$
- b. the consonant changes:  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$ ,  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$ ,  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$ ,  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$
- c. the diphthong changes:  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$ ,  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$ ,  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$ ,  $\text{[a] [i] [n] [s] [m] [n] [i] [a]}$

3. Madurese language characteristics found by the writers are:

- a. there is no phoneme [z] in Madurese language, it is substituted with [s]. For

example, when Subject 2 and Subject 3 pronounce ‘is’ with  $\text{[is]}$  not  $\text{[ʌs]}$ . But, in pronouncing ‘does’, subject 2 has the same pronunciation as subject 1, that is  $\text{[ʌs]}$ . It means that, there is phoneme [z] in Madurese language like in the Madurese dictionary made by Adrian Pawitra, but not all Madurese people can pronounce it well.

- b. in producing sound [v], it is referred to [f]. For example, when Subject 2 and Subject 3 pronounce ‘of’ with  $\text{[ɒf]}$  not  $\text{[ɒv]}$ .

- c. In producing diphthong [ɔɪ], it is referred to  $\text{[ɔɪ]}$  and  $\text{[ɔɪ]}$

- d. [ɔɪ] and [ɔɪ] only happened finally or medially. For example when Subject 2 (S2) and Subject 3 (S3) pronounce ‘addiction’ with  $\text{[ədɪkʃən]}$ , phoneme [ɔɪ] happened medially.

4. Subject 2 and subject 3 also made deletion and addition. For example, in pronouncing the word ‘addressed’, S2 pronounces with  $\text{[ədɪstɾesəd]}$ . Actually, it should be  $\text{[ədɪstɾesəd]}$ . In this case, addition occurs because she adds sound  $\text{[ɪ]}$ . The example of deletion is, when S2 and S3 pronounce ‘states’ with  $\text{[steɪt]}$ . Actually, it should be  $\text{[steɪt]}$ . In this case, deletion occurs because they delete sound  $\text{[d]}$ .

**DISCUSSION**

In reading the English text, for some words, the oscillographic pronunciation of Subject 2 and Subject 3 when it is compared to subject 1 is slightly different but sometimes it makes different meaning and it does not make different meaning. Besides, their Madurese language characteristics affect in reading the English text. While reading it, they made some sound changes: vowel, consonant and diphthong. Furthermore, they also made deletion and addition.

**CONCLUSION AND SUGGEST**

After conducting this research, it is concluded that the pronunciation of subject 2 and subject 3 are unintelligible because they often make mispronunciation which can make other people do not understand what they say. Therefore, it is recommended that the Madurese students and all students need to improve the English pronunciation by practicing to pronounce English words regularly and checking their pronunciation in dictionary, joining conversation club that the trainer is an English native speaker, listening to English conversation from the cassette, radio or television (English program), and continuing their education by choosing English Department or taking an English course.

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