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# Is My Stress Right or Wrong? Studying the Production of Stress by Non-Native Speaking Teachers of English

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## Abstract

This study aims at exploring the production of stress by non-native English teachers in Aceh. It also inquiries into how these teachers of English overcame their shortcomings in oral English language teaching. 45 nonnative English teachers from Aceh were recorded. They came from four regions in the province of Aceh, namely Aceh Timur, Langsa, Aceh Utara and Aceh Besar. The participants have taught English from five to 15 years. The approach used in this paper is qualitative by focusing on the method of lexical stress analysis suggested by Crystal (1969), Halliday (1970) and McCawley (1986). The study reveals that variations of lexical stresses were produced by the teachers with 13-15 years of teaching experience. Those from Langsa and Aceh Timur produced the most varied stresses. Therefore, it is suggested for future research to conduct a more in-depth study on this topic with a wider sample of participants and more target words. It is also proposed that possible socio-phonological language inferences in the production of English stress by EFL teachers should be *explored*.

**Keywords:** Lexical stress, English variation, Acehnese non-native English teachers.

#### 1. INTRODUCTION

Research conducted by Weda (2012) showed that stress in English produced by non-native university students was varied. This means that students produced stress that was not in accordance with Standard English enunciation. Another fact stated by James (2010) reveals that non-native speaking English teachers had difficulties in identifying the stress for two to three syllable words (SW), because they had already learned a specific stress pattern for one syllable words. They also often miss-stressed words with or without suffixes, because they tended to retain the stress for the stem which had been learned earlier. For example, the word *'circulates* is stressed on the first syllable whilst

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the word *circu'lation* is stressed on the third syllable. English stress is either of a noun or of a verb category. Thus, it seems that the teachers do not control English morphological processes, such as conversion, in which one word has two functions, as both a noun and as a verb. The stresses of these two-word pairs are different. If the word is a noun, the stress should be on the first syllable and its final syllable is reduced. If the word functions as a verb, the stress is on the second syllable and its initial syllable is reduced.

In oral English language teaching, teachers are required to be models for their students (Spencer, 2001). English should be understood as an international language which has certain stress patterns (Roach, 2001). In this sense, spoken English has its own patterns which give meaning to daily communication. This means that teachers who are capable of modelling good English speaking patterns will be good models for their students.

In a country where English is a foreign language, such as in Indonesia, English is generally taught formally in every public school by non-native speaking local teachers. This situation encouraged the researcher to conduct a comprehensive research study of lexical stress in English spoken by non-native speaking English teachers who have taught English in public Schools for more than five years and furthermore to discover their efforts to overcome errors in their stress production. Besides, the researcher needed to study findings from previous studies (Fata, 2013). The findings revealed that English teachers from Aceh produced a variety of tonic syllables. The stress produced by these teachers has never been investigated before. Therefore, the purpose of this study is to fill in that research gap.

## 1.1 Research Questions

The problem to be studied is formulated in the following research question: What variations are there in the lexical stress in English spoken by non-native English teachers (originally Acehnese)?

## 1.2 Scope of the Study

This research limits its investigation to the production of English lexical stress made by non-native English teachers (originally Acehnese). The research is related to phonology in English, in particular the supra segmental phoneme. Stress variations practised in teaching by non-native speakers is a fascinating phenomenon to study in learning a second language.

## 2. REVIEW OF LITERATURE

## 2.1 English Lexical Stress

The phenomenon of lexical stress in English has received considerable attention and is probably best described as a word pattern or potential. Halliday (1970) speaks of "word accent" as the potential salience of certain syllables within certain words. Gimson (1980) includes a detailed description of the accentual patterns of English words within his more general treatment of English pronunciation. Fudge (1984) introduces his book length treatment of English word stress by referring to the way in which one syllable in a given word is picked out or singled out.

On the other hand, the syllable is the point which is marked (McCawley, 1986, p. 113) by the symbol \ showing that the preceding syllable bears the high pitch accent and that the following syllable (if any) drops to a lower level. A word or phrase may also be stressed, where an initial syllable in a word-is low and any syllable before the accent is high).

For examples:

Deli \ ver	<i>'menyampaikan'</i>
L H L	(second syllable stressed)
Hap \ py	<i>'senang'</i>
H L	(first syllable stressed)

Lexical stress in English can serve to differentiate meaning. This means that the stressed syllables in English can differentiate the meaning of two words, such as convict as a noun and convict as a verb. Roach (1987) asks the question of: what are the characteristics of stressed syllables that enable us to identify them? It is important to understand that there are two different ways of approaching this question. One is to consider what the speaker does to produce stressed syllables, and the other is to consider the characteristics of sounds that make a syllable seem to be stressed to a listener. In other words, we can study stress from the point of view of production and also of perception; the two are obviously closely related, but are not identical. The production of stress is generally believed to depend on the speaker who uses more muscular energy to produce stressed syllables compared to that used for unstressed syllables.

Stress is called a supra-segmental phoneme because it can only occur with the segmental phonemes. Stress is defined as "the degree of force used in the production of a syllable" (Crystal, 2003, p. 435). This force of emphasis is put on certain words (or certain syllables within words). Ladefoged (1982) defines stress as a supra-segmental feature of utterances; it applies not to individual vowels and consonants but to the whole syllables-whatever they might be. A stressed syllable is pronounced with a greater amount of energy than an unstressed syllable.

Stress is a term that we apply to syllables in isolation in words which have more than one syllable. It refers to the property that certain syllables carry which makes them stand out from the rest of the word. It seems certain that stressed syllables are made with more effort than unstressed ones; the muscles used seem to expel air more aggressively than for unstressed syllables (Birjandi, 2005).

In a study by Chung (2006), it is noted that the sequence in which the minimal pairs are presented might confuse readers, leading them to pronounce each of the contrastive phonemes in the same way. As Chung (2006) states:

Readers often hesitate when confronted with a large number of similar words out of context, and they may either make a special effort to distinguish the words in a way they usually do not do when reading or speaking contextually. Some may, for example, add unaccustomed vowel lengthening to distinguish the word. (Chung, 2006, p. 2)

Roach (1987) argues that in order to decide on stress placement, it is necessary to make use of some or all of the following information:

- Whether the word is morphologically simple, or whether it is complex as a result of containing one or more affixes (that is, prefixes or suffixes).
- The grammatical category to which the word belongs (noun, verb, adjective, etc.).
- The number of syllables in the word:

If the stress is dissyllabic, stress is normally penultimate.

For examples:

'ozone 'Arab 'permit 'import

If the words are verbs, the basic rule is that: if the second syllable of the verb contains a long vowel or diphthong, or if it ends with more than one consonant, the second syllable is stressed.

For examples:

Below is the example of the production of stress from Crystal (1979, p. 59).

Locations of prominent syllables: P



**Figure 1.** The production of stress on the word "arrived" in Praat spectrogram by a native speaker from Crystal (1979, p. 59).

If the final syllable contains a short vowel and one (or no final consonants), the first syllable is stressed.

For examples:

e∖qual H L

 $\begin{array}{ll} en \setminus vy \\ H & L \end{array}$ 

A final syllable is also unstressed if it contains /90/.

For examples:

Fol low *'mengikuti'* H L Bor row *'meminjam'* H L

If the SP is trisyllabic, its stress is either penultimate or antepenultimate, depending on a number of factors, such as:

i) if the final syllable is strong, it means that the final syllable gets emphasis, so stress falls on the second syllable back from that syllable, i.e. the third syllable from the end of the word, as in the examples below:
 'antelope
 'cucumber

If the final syllable is weak, it means that the final syllable does not get emphasis. If the penultimate syllable is strong, then it is stressed as in the examples below: ve'randah spa'ghetti

ii) If the penultimate syllable is weak, then the syllable before it is stressed, as in the examples below:

a'sparagus A'merica

In verbs, if the last syllable contains a short vowel and ends with not more than one consonant, that syllable will be unstressed and stress will be placed on the penultimate. For examples:

en'counter de'termine

Wang (2004, p. 66) tells that stress in enunciating words in English has not received enough consideration either from teachers or students, and this concern starts

at the beginning of their teaching and learning. No pertinent tests are made and there are no specific requirements for them to achieve in this matter. Students lack practice in producing stress in speaking English and they may believe that their stress is not standard which may inhibit them from speaking English in class. Even though they may perform well, they may still lack confidence and require confirmation from their teachers to better encourage their learning in particular in practicing speaking English.

English language teachers often believe that the teaching of English stress belongs in the beginning of learning to speak English. When the opportunities for practicing stress in English are reduced, the results will be in a deficiency in the teaching of English (Li, 2010). The mistaken practice of paying more attention to vocabulary than to English stress is universal. Thus, it is important to remind and guide students to practice stress in English in teaching speaking English by teachers of English language (Xu & Cao, 2012).

## 3. METHOD

The study employed descriptive qualitative research. The participants in this research were 45 female English language teachers with from five to 15 years' experience in teaching English. There were ten teachers from Aceh Timur, 12 teachers from Langsa, 12 teachers from Aceh Utara, and 11 teachers from Aceh Besar. The teachers have never been abroad.

The researcher obtained the English lexical stress data by having a recorded conversation with each participant. They were each given pictures that explained the target words. Then, the researcher conversed with the informants whilst using the pictures. She used probing questions about the pictures to get each participant to produce the target words. The data was recorded using a Samsung Galaxy note 10.1 tape recorder. This data was then stored at mp4 resolution of 640\*480 bytes. The study used 20 disyllabic stress words (ten nouns and ten verbs) and 20 trisyllabic stress words (ten nouns and ten verbs) for each participant, totalling 900 disyllabic and 900 trisyllabic words with stress.

The recorded data were then transferred to PRAAT software version 4.4.20 (Boersma & Weenink, 2006). The spectrograms produced show tracings for the graphical stress variation for every target word produced by each participant. Each spectrogram was printed to better read the tracing. These graphs helped in interpreting the sounds recorded and helped to identify difficult parts of the sounds or pitch variances. The data were analyzed based on the standard stress production described by Crystal (1969), Halliday (1970) and McCawley (1986).

## 4. FINDINGS AND DISCUSSION

## 4.1 Findings

This section consists of findings and discussion. The findings are shown in the tables as follows.

Lexical stress	Frequency	Percentage
Dissyllabic	675	75%
Trisyllabic	720	80%

Table 1. Lexical stress variation.

#### Table 2. Dissyllabic stress variation.

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Dissyllabic	Frequency	Percentage
Verb	573	85%
Noun	102	15%
Total	675	100%

Trissyllabic	Frequency	Percentage
Verb	216	30%
Noun	504	70%
Total	720	100%

 Table 3. Trissylabic stress variation.

Table 1 shows that in dissyllabic stress variation, there were 675 (75%) variations from the 900 total words. This means that the informants produced 675 different stress patterns. It also shows that for trisyllabic stress variation, there were 720 (80%) variations from the 900 words. These informants were from Aceh Timur and Langsa.

Table 2 shows that for the disyllabic words there were 573 verbs and 102 nouns with stress variations from the 675 total of words, Thus the participants produced more different stress variations in verbs than in nouns. These participants came from Aceh Timur and Langsa.

Table 3 shows that for the trisyllabic words there were 216 verbs and 504 nouns with stress variations from the 720 total of words. Thus these participants produced more stress variations in nouns than in verbs. These informants were also from Aceh Timur and Langsa. Some examples from the data are shown below.

#### 4.1.1 Dissyllabic Words

Stress shifts to two-syllable words which contain a short vowel and a (or no) final consonant to its syllables; here the first syllable should be stressed. However, the participants in the study stressed the final syllable, instead.

Excerpt 1:

Wrong stress: en'vy per'mit o'zone

Correct stress: 'envy 'permit 'ozone Excerpt 2:

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Standard by McCawley (1986)
\e qual 'persamaan'
H L
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Thirty informants produced the word as follow:

e \ qual *'persamaan'* L H

Another word is:

Excerpt 3:

Standard by Crystal (1969) Ap  $\ ply$  *'mendaftar'* L H

The 32 non-native teachers of English produced the word differently. They used low stress tone for the second syllable. That is why their production is called varied.

#### 4.1.2 Trisyllabic Words

If the word is trisyllabic or longer, it is either penultimate or antepenultimate, depending on a number of factors. From the data, the informants produced stress wrongly for most trisyllabic words.

## Excerpt 4:

Standard by Halliday (1990):		
Deli \ver	'menyampaikan'	
LH L	(second syllable stressed)	

Thirty one informants produced it as:

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\ De li ver'menyampaikan'HL(first syllable stressed)
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From the data, it was found that for three syllable (trisyllabic) words, participants tend to speak it by producing high tone in the first syllable and this is the opposite of the standard pattern where high tone is produced on the second syllable. These informants were from Langsa (11 teachers), Aceh Timur (six teachers) and Aceh Utara (three teachers).

However, if the words are verbs, the basic rule is that if the second syllable of the verb contains a long vowel or diphthong, or if it ends with more than one consonant, the second syllable is stressed. For instance 'arrive', it should not be stressed in the final syllable and the preceding syllable bears the high pitch accent of the first.

The data showed that the informants made efforts to distinguish the words in a way they usually did not do when reading or speaking contextually (Chung, 2006). Some may, for example, add unaccustomed vowel lengthening to distinguish them.

## 5. DISCUSSION AND CONCLUSION

Variations in English lexical stress made by non-native teachers of English in Aceh were studied. The most variations were in two-syllable verbs spoken by teachers from Aceh Timur and Langsa. The most variations found in three-syllable nouns were also, spoken by teachers from Aceh Timur and Langsa. The study compared what the speaker does in producing stressed syllables with the traits of the syllables that should be stressed. Since the dissimilar stress produced by the participants didn't lead to different meanings, therefore, this was considered as a unique characteristic of their stress production.

Language is dynamic and in terms of stress, there is no right or wrong way of producing stress. In fact, as shown in this study, there is variation in stress. The variation of placement of stress in English takes place on the first, second or last syllable.

This study found that the most variations in stress patterns were produced by teachers from Aceh Timur and Langsa. Since words in English have more stress patterns and a number of rules governing these patterns compared to Bahasa Indonesia and Acehnese, therefore, teachers who teach English as a foreign language should at least know these rules in order to teach their students the appropriate stress. Due to limitations of this study in terms of number of participants, the number of target words and the time available, therefore, it is suggested that future research could conduct a more in-depth study of this topic with a more participants and more targets words. It is also suggested to explore possible socio-phonological language factors involved in the production of stress in English spoken and taught by EFL teachers.

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