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Teaching English Stressed Syllable Using Musical Pattern Technique

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ABSTRACT: The right placement of stress on the English words is a main concern in EFL speech intelligibility training. If a word in English has more than one syllable (polysyllabic words), one of the syllables is stressed. It is very important for the EFL learners who have drastically different system in their L1 (Indonesian) put stress in the right place. If the wrong place syllable is stressed, listeners may not be able to understand what word is being said. Therefore, the present study explored the effect of musical pattern technique on the learning of English stressed syllable. Musical pattern technique is defined in the context of the study as impressionistic patterns which are acoustically similar to stressed syllable patterns. There were 50 IndonesianEFL learners at Senior High School participated in this study. The technique was used to teach stress patterns of two syllable in English words. This study was conducted in the form of experimental study with the design one group pretest posttest. After statistical calculation, and right-hand hypothesis test, the value of t-count -34.37 and t-table 1.67 with a level of error of 5%, the value t-count fell down on the Ha acceptance area (Ho was rejected). So, it could be concluded that the musical pattern technique was effective. The findings are interpreted to have professional and pedagogical competences for EFL teachers.
KEYWORDS:*English stressed syllable, Indonesian EFL learners, musical pattern technique*

I. INTRODUCTION

Nowdays, the communicative function of suprasegmental features of English is widely recognized (Goodwin, 2001). One of suprasegmental features is stress. Word stress plays a major role in EFL speech intelligibility training. In fact, for comfortable intelligibility which is needed for the interaction between native and non-native speakers, correct stressed syllable is essential. EFL learners need to be familiar with-and to be able to work with-word-level stress if their speech is to be comprehensible to proficient English speakers (Murphy, 2004). Patterns of stressed syllables provide essential signals to English listeners as they attempt to make sense of incoming information (Aitchison, 2004). Word stress is important aspect of vocabulary knowledge (Nation, 2001). EFL learners who correctly place the stress of new vocabulary have greater chance to remember and use the same vocabulary in the target language (Aitchison, 2004; Levelt, 2003).

Teaching pronunciation seem always be an important productive skill to be taught in English classes, either in English department or in either non-English department. It is due to its goal that is to make people able to communicate or express their opinions directly through spoken form. The teaching of pronunciation is a bit left behind if comparing it with the teaching of any other language components such as grammar or vocabulary. Especially, in Indonesian context, pronunciation seems to have a little concern to be taught in any level of education.

Actual language activity refers to communicative interaction and not to set of language rules, so that language learning should be directed to the use of language in everyday contexts. Language learning is essentially an attempt to acquire oral communication skill with an emphasis on acquiring speaking skill and habituation in using language to communicate. Only by having good communication skill, speakers can express themselves and learn to follow the prevailing social and cultural rules (Kayi,2006). Relation to language discussion as a tool for communication,there are two methods for mastering the language. Both methods are (1) languageacquition and (2) language learning. Language acquisition is related to the naturalistic type and occurs in the child's subconsciousness, whereas language learning is related to the formal type or the learning process in the classroom (Krashen, 2009; Odisho*et al*, 2008; Fernandez *et al*, 2011). Learning process that takes place in the classroom deals with components, such as curriculum, syllabus, teachers, students, materials, and media, and learning resources that are prepared.Referring to the explanation above, the discussion in this article is to master the language through teaching-learning in the formal classroom. The language learning chosen is English pronunciation.English is one of the most used languages in the world. It is used in communication both in oral and written form to share ideas and to connect politically and culturally across nations. Because of its

importance, in Indonesia, English becomes a local content subject in elementary school and as a compulsory subject for junior and senior high schools students.

In fact, since pronunciation also plays important role in communication, its importance should be as same as the teaching speaking itself. Pronunciation links to the speech clarity and listening comprehension. This is because if someone makes wrong pronunciation or wrong stress on English words, the same English sound or foreign language speakers perhaps still understand him/her, but the native speakers will have different perception. They might not understand of what she or he says. Mispronunciation affected comprehensibility since it could make misinterpretation between inter-locuters (Arienintya, 2017:483)).Finally, EFL learners with adequate control over stressed syllable of English words placement can be better listeners since English stress is navigational guide for listening. In relation with the statement above, this study was carried out to measure the effectiveness of musical pattern technique to increase learners'ability in learning stressed syllable of English words for gettingpronunciation that is intelligibility.

Syllables and Word Stress

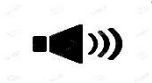
Until now we have talking about individual phonemes-consonants and vowels-which together are called the segmental sounds. Meanwhile, suprasegmental features-aspects of pronunciation that affect more than just a single sound (Yoshida, 2016:69-71). One of the most important suprasegmental features of English is word stress(the extra emphasis given to one syllable in a word that has more than one syllable). A syllable is a rhythm unit in speech-a chunk of sound that gets one "beat" in a word. In English, a syllable can also have one or more consonants before the vowel and one more consonants after it. Each syllable must have a "heart" usually a vowel, but sometimes a syllabic consonantsounds [n], [ɹ], and [l]. Those sounds often become after a stressed syllable that ends in an alveolar consonant. Here are some words with the two syllables in each:

(1) im-port [ɪmˈpɔ:t] = verb
(2) im-port [ˈɪmpɔ:t] = noun
(3) tun-nel [ˈtʌnl]] [l] is a syllabic consonant
(4) ken-nel [ˈkenl]]
(5) kit-ten [ˈkɪtn]] [n] is a syllabic consonant
(6) but-ton [ˈbʌtn]]
(7) wa-ter [wɔ:tə(ɹ)]] [ɹ] is a syllabic consonant
(8) but-ter [bʌtə(ɹ)]]

Characteristic of Stressed Syllables

In English, a stressed syllable can have any or all of the following qualities:
- It is longer in duration than the other syllable:
ɪmˈ**pɔ:t**

- It is louder than the other syllable:



ɪmˈ**pɔ:t**

- It is higher in pitch than the other syllable:

ˈ**pɔ:t**

ɪm

Contrastive Analysis

One of the main factors in the field of second language acquisition (SLA) is the role played by the difference of sound system among languages. Contrastive analysis is an approach in SLA studies that is used to predict and explain the problem of language systems based on comparisons between two or more languages (Saville-Troike, 2006). This analysis also emerged as an answer to the demands of improved second language teaching (Johansson, 2008; Saville-Troike, 2006).

Contrastive analysis as a structural linguistic application on language teaching based on the following assumptions (a) the difficulty in learning a new language is due to first language interference,these difficulties canbe predicted by contrastive analysis; (b) materials or teaching materials may utilize contrastive analysis to reduce interference effects.Furthermore, the purpose of the contrastive analysis itself is to (a) look for aspects of

difference and similarities between languages; (b) predict difficulties arising when learning a foreign language; and (c) contribute to the determination of foreign language teaching strategies. The differences in sounds become the nagative transfer for EFL speakers. In fact, a large body of research has demonstrated that the structure of the learners'L1 has an impact on L2 acquistion. The learners'mother tongue is most noticeable and long-lasting in the area of pronunciation, as compared to grammar and vocabulary.

Musical Pattern Technique

Technique is a way of carrying out a particular task, especially the execution or performance of an artistic work or a scientific procedure. The common characteristicsof musical pattern technique are visual and auditory. While teaching learning process in classroom, learners cannot only see musical patterns of stressed syllables but also listen to their English teacher saying with various loudness to indicate stressed syllables. For instance, the teacher says "ba**NA**na" with the second syllable "-**NA**-" is louder, longer duration, and higher pitch. It is widely accepted that many acoustic features of speech such as pitch, tone, duration, and prominence resemble those of musical melodies (Ladefoged, 2006). As Goodwin (2001) points out through such technique can assure EFL learners have specifically paid attention to the stressed syllable patterns of given words. Here are some words with two syllables taught by musical pattern technique.

That is my ˈ**ob**ject.

I obˈ**ject** your idea.

ˈ**Ki**tten is always hungry.

He drives through the ˈ**tu**nnel.

Aspects of Music-Language Relationship

There are long-established historical, cultural and (to a less extent) cognitive links between language and music (Jackendoff, 2009). However, in the following section only the cognitive aspect of language and music is briefly considered to see to what extent recent research indicates that language and music are similar in terms of brain's mental process.

Neurological Perspective

Despite the fact thatbiomusicology is rather young research in this field indicates that language and music share some cognitive processes (McMullen &Saffran, 2004; Jackendoff, 2009). For instance, Patel (2008) presents the experimental evidence that the hierarchical structures of language and music, although formally distinct, are integrated by the same part of the brain, roughly the Broca's area. Vuust*et al* (2011) also suggest that the processing of metric elements in music relies on the brain areas that are also involved in language processing. In addition, it seems there are similar developmental cognitive underpinning in both language and music.

Some research studies have been done on the pronunciation problems of EFL learners with diverse langauge backgrounds, all pointing to the influence of the mother tongue. Some of these studies are reviewed below. Yangklang (2013)who investigated e-learning technique to improve the first year students' mastery on English supra-segmental features in NakhonRatchasimaRajabhat University, Thailand. The Thai students could increase their ability on supra-segmental features pronunciation after giving treatment by using e-learning. Hamarasah& Muhammad (2018) investigated the English Department students' view on teaching stress and intonation in terms of teaching setting, teaching methods, and teaching material in Salahaddin University, Iraq. His research results found that English pronunciation, especially learning prosodic features were difficult, so the appropriate strategy had to be implemented. Arienintya (2017) found many of the Indonesian learners of English Language Teaching still frequently made mistakes in pronouncing English stressed words. Her suggestion for professional EFL teachers and syllabus designers to develop the suitable method for teaching English suprasegmental features. Fischler (2015) found the overall non-native speakers' intelligibility and allocation of word stress patterns could be improved through explicit instruction of stress and practice with rap music. Based on the previous discussion, this study sought to answer the following research question.

Research Question

What effect does musical pattern technique has on Indonesian EFL learners' correct placement of stress in English syllables?

II. RESEARCH METHODS

This study employed an experimental with one group pretest posttest design. The participants were takenrandomly from senior high schools in Central Kalimantan, Indonesia. According to the information obtained through a questionnaire, the participants were all raised in Indonesian-speaking communities in Central Kalimantan where there is not much interaction with native speakers of English in society. The participants had not travelled to any English-speaking country. It must be emphasized that English as the participants'required subject in the school.

Questionnaire and pronunciation test were used as the instruments for collecting data. The objective of the background questionnaire was to obtain information about participants including age, gender, ethnicity, and place of residence, and more importantly native language background and amount of exposure to English. The participants were also asked if they had travelled to English-speaking country. The purpose of the pronunciation test was to elicit pronunciation errors of Indonesian learners of English. The test considered of a short conversation in pairs. All test items containing problematic stress and unstressed English syllablesfor the Indonesian speakers of English. The content and form of the pronunciation test and questionnaire items were revised a few times to improve their validity and reliability. For example, complicated words and confusing were replaced by simple and familiar words.

The participants were asked to make short conversation in pairs work while being audio recorded. Each recording lasted in 15 minutes for the each participants. The recorded data were analyzed after listening to each participant's pronunciation a few minutes. Next, participants' mispronunciation were categorized and frequencies and percentages of both errors and correct pronunciation were computed.The participants were informed about the goal of the study and were assured that their identity would remain confidential. They were also informed that the data collected from them would only be used for research purposes. To test the level of effectiveness of the model, it was necessary to compare the results of pre-test and post-test which were then tested statistically with correlated t-tests and then proceed with the right-hand hypothesis test. SPPS program was applied to know the needed values of t.

III. RESULTS AND DISCUSSION

Using Musical Pattern Technique to Increase Indonesian Students'masteryin Pronouncing Stressed Syllable

Based on the results of pretest, the first problem was to put stress to distinguish word classes of the same words. As Table 1 shows, most of the participants (54%) mispronounced the verb *ex'port*as *export*, there were 52% participants mispronounced the noun *'record* as *record*, the participants (50%) mispronounced the verb *ob'ject* as *object*, there were 54% participants mispronounced the word *im'port* as *import*, and participants (48%) mispronounced the word *'permit* as *permit*.

The second problem of pretest was to put stress to indicate noun and verb. As table 2 illustrates the problems in indicating noun and verb from different words. Participants (46%) mispronounced the word *'woman* as *woman*, participants (48%) mispronounced *'table* as *table*, there were participants (44%) mispronounced the word *'paper* as *paper*. Next, the third problem of pretest was to put stress to identify verb. There were participants (48%) mispronounced the word *re'ceive* as *receive*, and participants (46%) mispronounced the word *im'prove*as *improve*. This is due to the fact that the suprasegmental features of Indonesian differs drastically from English. In English, stress used to differentiate the word classes and give

different in meaning but vice versa in Indonesian. Therefore, Indonesian learners did not put stress on any English syllables.

Table 1. *Frequency of Indonesian Speakers' Mispronunciation of Stressed Syllables from the Same Words*

Problematic stressed syllables	Participants' Mispronunciation	Frequency and Percentage of Mispronunciation	
		No.	%
exˈport (verb)	export	27	54%
ˈrecord (noun)	record	26	52%
obˈject (verb)	object	25	50%
imˈport (verb)	import	27	54%
ˈpermit (noun)	permit	24	48%

Table 2 displays the numbar and percentage errors made by the participants in the pronunciation of English stressed syllables. Participants had a high percentage errors in the pronunciation of stressed syllables of the different words. As mentioned before, the reason for such mispronunciation is learners' first language interference since in Indonesian words, stress does not use to distinguish class of word.

To increase the students' ability in pronouncing stressed English syllables correctly, this study gave treatment by applying musical pattern technique. The treatment was conducted during 2 months at research site. After giving treatment, the posttest was conducted to the same group. The posttest had two parts measuring the participants' ability to recognize the stress of distinguishing word classes and meaning of the same words. Either part used to test the participants' ability to recognize the stress of distinguishing word classes from different words. The following diagrams shows the comparison of the percentage level from pretest and posttest.

Table 2.*Frequency of Indonesian Speakers' Mispronunciation of Stressed Syllables from Different Words*

Problematic stressed syllables	Participants' Mispronunciation	Frequency and Percentage of Mispronunciation	
		No.	%
ˈwoman (noun)	woman	23	46%
ˈtable (noun)	table	24	48%
ˈpaper (noun)	paper	22	44%
reˈceive (verb)	receive	24	48%
imˈprove (verb)	improve	23	46%

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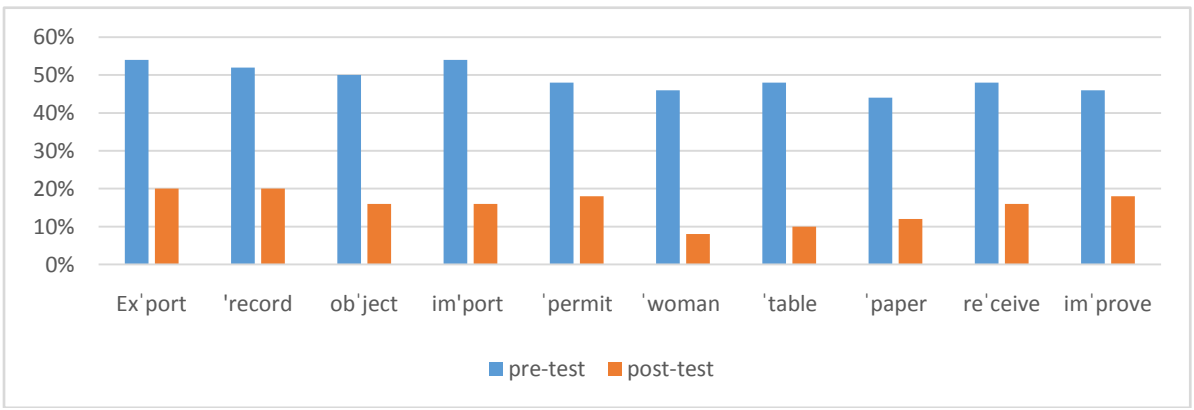
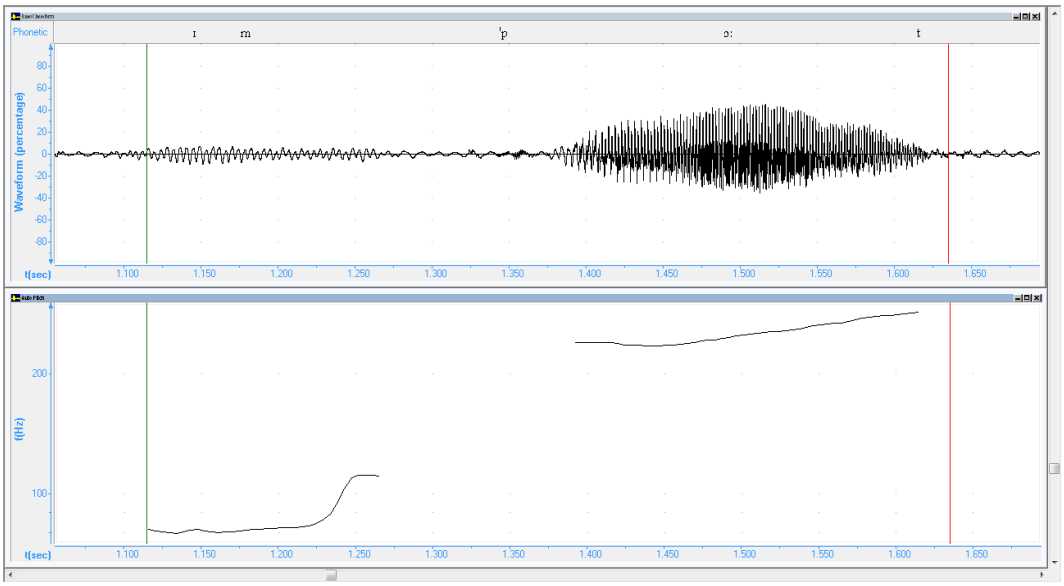


Diagram ofPercentage Level of Errors in Pronunciation of English Stressed Syllables

The posttest results indicated that the participants' errors of English stressed syllables pronunciation were in low level. The diagram above showed the participants' difficulties in pronouncing the words *ex*ˈ*port* was 20%, ˈ*record* was 20%, *ob*ˈ*ject* was 16%, *im*ˈ*port* was 16%, ˈ*permit* was 18%,ˈ*woman* was 10%, ˈ*table* was 10%, ˈ*paper* was 12%, *receive* was 16%, and *im*ˈ*prove* was 18%. Based on the results of pretest, the learners' problems were 49% or theirs ability was 61%. After giving treatment, the posttest was given and results were 15% of the learners' problems or 85% of the learners' mastery on English pronunciation. Based on the results of statistical calculation with right-hand hypothesis test using SPSS program the musical pattern technique was more effective than old technique. The learners had reached the school minimal mastery criteria in English subject was 75%. The following picture described the learner's correct pronunciation of English stressed syllable on the word *im*ˈ*port* as a verb.



*Picture of Speech Analyzer Analysis of the Word**Im*ˈ***port** as a Verb*

Based on speech analyzer analysis of *im*ˈ*port* as a verb, the first syllable [ɪm] had 112.4 Hz (frequency) with lax vowel [ɪ] as a peak of the syllble, itsintensity was -20.4 dB (20.4 dB), and duration was 0.02ms. The frequency of the second syllable [ˈpɔːt] was 276 Hz, tense vowel [ɔː] was as a peak, its intensity was -7.1 dB (7.1 dB), and duration was 0.03ms. Frequency, intensity, and duration of the second syllable was higher than the first syllable. After teaching learning process used musical pattern technique, the learners could increase their ability in pronouncing English stressed syllable.

IV. CONCLUSION

The results of the present study give evidence to the theory of negative transfer that comes from contrastive analysis in the area of English stressed pronunciation. As explained above, all of the errors made by Indonesian-speaking learners of English were due to the fact that the stress function in English words is used to differentiate class of words and make different meaning. Put stress in wrong syllables of English words will give different in word meaning. On the other hand, stress in Indonesian words is not phonemic. Indonesian and English languages have drastically different system of suprasegmental features. This study proves that musical pattern technique has ability to increase the EFL learners' pronunciation mastery, especially learning stressed syllable.

This research has limitation and suggestion for further research. The results of this study cannot be generalize for other senior high schools since the students' characteristics, problems, and teachers' references are different from the other schools. Empirical studies conducted in other EFL contexts, with different L1 background students of English, have reached the same or similar conclusion. See, for examples, Hamarasah & Muhammad (2018); Yangklang (2013); and Arienintya (2017). Consequently, the contrastive analysis hypothesis can be as the acknowledgement for the validity of the theory with reference to the role of L1 interference in L2 pronunciation. Suprasegmental features, particularly stress and intonation are crucial aspects of pronunciation. Teaching and learning these features are usually not easy for teachers and learners (Hamarasah& Muhammad, 2013). Consequently, future researchers may consider to find the new technique for teachingEnglish prosodic features.

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REFERENCES

[1] Aitchison, J. (2004). *Learning to Assign Lexical Stress during Reading Aloud: Corpus, Behavioral, and Computational Investigations*: Journal of Memory and Language, 63(2), 180-196.

[2] Arienintya, Dhinar. (2017). *The Influence of L1 and L2 in English Stress Shift Production of the EFL Learners in Indonesia*. LSCAC Conference Proceedings. The 4thInternational Conference on Language, Society, and Culture in Asian Contexts. Indonesia: Malang State University.

[3] Fernandez, D.M. and Huges. (2009). *Student Teacher Perceptions of Pronunciation Tasks in Andalucia*. Buckingham Journal of Language and Linguistics, vol.2. Retrieved 27th November, 2017 from http://ubplj.org/index.php/bjll/article/view/12/18.

[4] Fischler, J. (2005). *The Rap on Stress: Instruction of Word and Sentence Stress through Rap Music*. Thesis. Minnesota: Hamline University.

[5] Goodwin, J. (2001). *Teaching Pronunciation*. In M.Celce-Murcia (Ed), Teaching English as a Second or Foreign Language (pp.120- 121). USA: Heinle&Heinle.

[5] Hamarasah, Pakhshan& Muhammad. (2018). *Teaching Stress and Intonation from Students' Perspective*. Al-Fath Journal No. 74 June 2018, vol. 3. Erbil/Iraq: Salahaddin University.

[6] Jackendoff, R. (2009). *Parallels and Non-parallels between Language and Music*. Music Perception, 26 (3), 195-204.

[7] Johansson, Stig. 2008. *Contrative Analysis and Learner Language*: A Corpus-Based Approach. Oslo: University of Aslo.

[8] Kayi, Hayriye. (2006). *Teaching Speaking: Activities to Promote Speaking in Second Language.* The Internet Journal, Vol. XII, No. 11, November 2006. Retrieved 13rd April, 2014 from http://iteslj.org/.

[9] Krashen, Stephen D. (2009). *Principles and Practice in Second Language Acquisition*. California: University of Souther California.Internet Edition.

[10] Ladefoged, P. (2006). *A Course in Phonetics*. New York: Harcourt College Publishers.

[11] Levelt, W. (2003). *Speaking: From Intention to Articulation*. Cambridge, MA: The MIT Press.

[12] McMullen, E., &Saffran, J. R., (2004). *Music and Language: A Development Comparison*. Music Perception, 21 (3), 289-311.

[13] Murphy, J.M. (2004). *Attending to Word-Stress While Learning New Vocabulary.* English for Specific Purposes Journal, 24 (3), 756-766, vol. 4.

[14] Nation, P. (2001). *Learning Vocabulary in another Language*. Cambridge: Cambridge University Press.

[15] Odisho, E.Y. (2008). *Techniques of Teaching Pronunciation in ESL, Bilingual & Foreign Language Classes.* Munich: Lincom Europa.

[16] Patel, A.D. (2008). *Music, Language, and Brain*. Oxford: Oxford University Press.

[17] Vuust, P., Wallentin, M., Mouridsen, K., Ostergaard, L., &Roepstorff, A. (2011). *Tapping Polyrhythms in Music Activities LanguageAreas.* Neuroscience Letters, 494 (2), 79-102.

[18] Saville-Troike, Muriel. (2006). *Introduction Second Language Acquisition*. Cambridge: Cambridge University Press.

[19] Yangklang, Warisana. (2013). *Improving English Stressed Intonation Pronunciation of the First Year Students of NakhonRatchasimaRajabhat University through an e-Learning*. Thailand:Procedia-Social Behavioral Sciences 91.

[20] Yoshida, Marla Tritch. (2016). *Understanding and Teaching the Pronunciation of English* (e-book version). California: University of California.