Increasing the Students' Awareness of Stressed Syllable in Pronouncing English Words

Anggara Jatu Kusumawati
Islamic University of Indonesia
anggarajatu@uii.ac.id

Abstract

This study explores how to increase the students' awareness of stressed syllable in pronouncing English words based on activity-based approach. The approach in this research employs traditional techniques which consist of IPA habituation, drills, and stress marking. The research involved 32 selected sophomore students majoring in English. The research was carried out quantitatively by providing the students with 61 words containing stressed syllable prior and post class treatment in the fom of pre and post test. The findings pinpoint the improvement of students' pronunciation. Given the result of the post-test, it comes to light that all of the students have better pronunciation and better ability for syllable stressing.

Key words: *pronunciation, stressed syllable, activity-based approach*

A. Introduction

English pronunciation is such an uphill task to master especially in second language learning. Every English learner is required with correct and accurate pronunciation. In English, stress plays an important role that a wrong placement of stress may change part of speech of that word or lead to misunderstanding. For Indonesian born English laerners, English learners especially Indonesian (whose English acts as a second language), it is highly required that they master correct sounds and pronunciation of the target language in order to be understood by others (Willing in Chongning, 2009).

A problem occurs when we primarily speak like our mother tongue. It is in line with Storkel (2003), since the English learner has a tendency to transfer the rethoric and accent of their mother tongue to the foreign language, they appear to be some problems. Stress is not highly considerable in Indonesian language. Every syllable has relatively the same degree. For example the word *per-sa-tu-an*. It has four syllables and has no different when it is stressed on the first syllable (*PER-sa-tu-an*), the second syllable (*per-SA-tu-an*) or others. Stress in Indonesian does not change both pronunciation and meaning. Unlike Indonesian, stressed syllable in English can change both pronunciation and meaning or part of speech. Take an example of the word 'PREsent' and 'preSENT'. It has different pronunciation and meaning if the stress is put on the first syllable, the pronunciation is /ˈprez.ənt/, otherwise if the stress is put on the second, the pronunciation is /prɪˈzent/. Different stress pattern in both languages affects the speakers' understanding. The more the mother tongue interfere the target language the more the likeness for misunderstanding.

In pronunciation class, lack of practice is another problem faced by the students. Studying English pronunciation with only little opportunity to practice makes their pronunciation far from accurate. To improve this situation, students should be provided with more chances to practice. More activities to practice increase learners' participation in the learning process.

B. Literature Review
1. English Stress and Rhythm
Language is a natural phenomenon that is characterized by rhythm. The word rhythm is a Greek word which is derived from verb means 'to flow'. It can be defined that language rhythm is the flow of speech (Nespor and Vogel, 1989). The study of pronunciation in English teaching practice basically focuses on the aspects called stress and rhythm which determine the intelligibility of a word. A continuous stream of sounds without obvious borderlines between them causes unnatural and unsmooth-flowing style of speech. People speak in logical connected words and not word by word. The recurrence of stressed syllables at more or less regular intervals of time and he alternation of stressed and unstressed syllables form the rhythm of English speech (Cai, 2008)

2. Stressed Syllable
English is one of languages which has rhythmical system on 'stress-timed' (Kreidler, 2004). Every word which consists of two or more syllables, when ponounced alone, has a stress on one of its syllables. Giving proper emphasis to stressed syllable gives better understanding and sounds more natural. Stressed syllable should be pronounced in louder volume, in longer duration, and in higher pitch (Geeslin, 2013). For example the word 'student' has phonetic transcription /ˈstuː.dənt/. It means that the word has two syllables and a stressed syllable that is on the first syllable that should be louder, longer, and higher in pitch [STUUdent].

An English word usually has three lexical stresses namely primary, secondary and unstressed. A primary stress is indicated by a phonetic symbol /'/ on top of certain syllable in transcription. A word sometimes has secondary stress that usually has the phonetic symbol /ˌ/ before certain syllable. The stressed syllable both primary or secondary are not predictable, so using dictionary is a must to get correct placement of stress. The word 'transformation' for example, has phonetic transcription /ˌtræns.fəˈmeɪ.ʃən/. It has four syllables, one primary stressed syllable, one secondary stressed syllable and two unstressed syllable. The primary stressed syllable has louder, longer, and higher in pitch than the secondary then others have the least. The illustration of the stressed syllable is shown below.

Figure 1. Example of stressed syllable

		*	
*		*	
*	*	*	*
ˌtræns	fə	ˈmeɪ	ʃən

3. Activity-Based Learning

Teaching pronunciation does not focus on giving material and rules of English sound system to students, but it should be more integrated and contain more physical activities to find the best way to pronounce the language without detracting from the ability to comprehend the message (Celce-Murcia et al, 1996). Traditional technique seems effective to be employed since students are in the early study of pronunciation. There are some techniques used for teaching pronunciation:

a. IPA Habituation

The International Phonetic Alphabet helps second language learners to have an idea of how the target language should or must be pronounced. Phonetic transcription is just an exact representation of the standard spoken language. It leads no confusion of phonemes because it represents one way pronunciation. An ideal way of pronouncing word can be done by looking up the transcription of a word in a dictionary. It is also helpful to familiarize the phonetic chart (consonant and vowel charts), because it shows the precise voice, tongue shape, tongue advancement, and articulation (Kreidler, 2004).

b. Drills

Drills allows more opportunity for learners to get their tongues around new language without the extra strain of trying to communicate. Though it is traditional technique but as long as they do well, both individual practice and group practice can have big contribution to learners' pronunciation improvement.

c. Marking Stress

Word stress pattern in English is unpredictable (Kreidler, 2004), requiring a correct stress marking of a new word. Marking stress can be done with elastic band or giving one set of dots. When practicing pronunciation students hold elastic band and do 'tight and loose' movement. 'Tight' movement is for louder, longer, and higher in pitch which was categorized as a stressed. Otherwise, 'loose' movement is for unstressed syllable.

4. Praat Software

Praat is a program for speech analysis which offers a wide range of standard and non-standard procedures, including spectrographic analysis, articulatory synthesis, and neural networks (www.praat.org). This program measures quantities that related to 1) pitch, related to sounds high or low sounds, 2) loudness, loud or soft sound and 3) timbre, pure or complex sound. The stressed syllable of the word is pronounced louder, longer and higher in pitch.

C. Research Method

The primary data were collected from pre-test and post-test which was then analyzed to see the pronunciation improvement. Afterwards, they were compared to know the correlation between activity-based approach and the tests. There were 61 words given which consisted of 35 words containing stressed syllable on the 1st, 22 words contain stressed syllable on the 2nd, and 4 words containing stressed syllable on the 3rd or others. In the pre-test and post test the students read aloud all of the words then were recorded.

Praat sofware was used to analyze the recorded data to see the differences of stressed syllable pronounced by the students in the tests. After the data was analyzed, they were compared and described thoroughly. Below is the use of Praat sofware to compare the pre-test and post-test pronunciation result.

Figure 2. The spectogram of the word 'accident' in the pre-test.
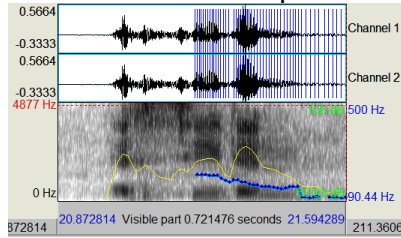
Figure 3. The spectogram of the word 'accident' in the post test.
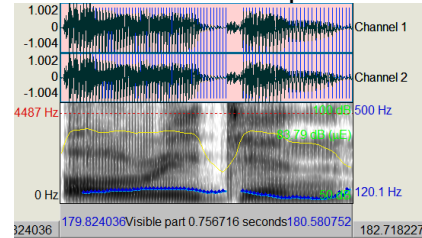
D. Findings and Discussion

There are 61 English words which consist of of 35 words contain stressed syllable on the 1st, 22 words containing stressed syllable on the 2nd, and 4 words containing stressed syllable on the 3rd or others. The detail of words can be seen in the following table.

Table 1. List of Words

Stressed syllable on the 1st	Stressed syllable on the 2nd	Stressed syllable on the 3rd (other)
fillings, feelings, major, worried, accident, access, people, angry, jungle, English Greenwich, interest, restaurant written, castle, comfortable, economy, nation, conduct, desert, present, subject, conflict,confident, delicate, sensitive, admirable, complicated, necessary, origin, limit, offer, instrument, calendar, atmosphere	forget,accommodate, accept, machine, attach, design, economy, experiment, historian, philosophy, to conduct, to desert, to present, to subject, to conflict, poetic, appropriate, occur, advise, canal, democracy, success	economics, experimental, nationality, philosophical

From the result of pre-test and post test, it is obviously seen that the students show much improvement. For average, in the beginning the students have 40 words correctly pronounced or (65%) and in the end after the pronunciation treatment with activity based-learning, students's ability substantially increased to, 53 words correct in the average or amounted 87%. These numbers can be drawn from the average result of the test that can be seen on the following figures.

Figure 4. Pronunciation Improvement in Number of Words
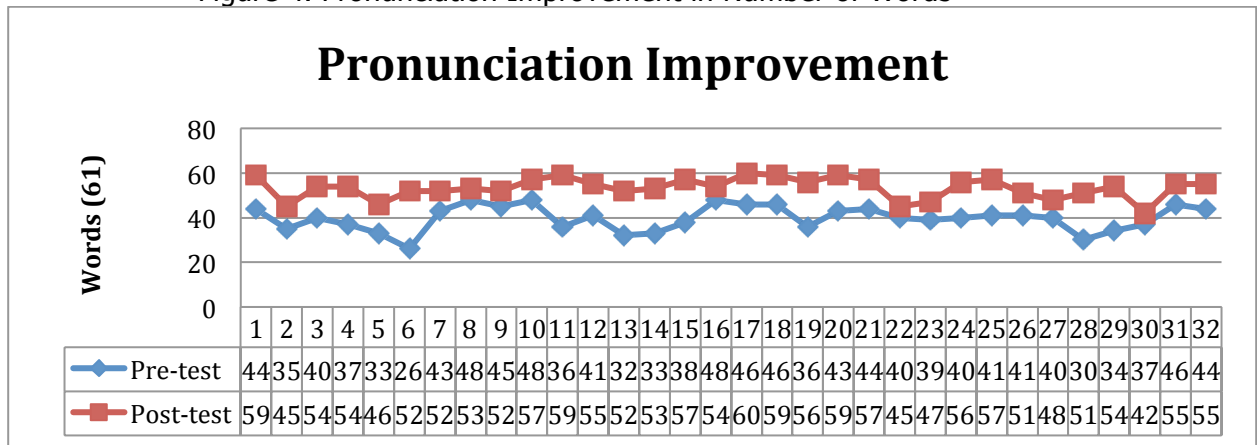

Pronunciation Improvement

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Pre-test	44	35	40	37	33	26	43	48	45	48	36	41	32	33	38	48	46	46	36	43	44	40	39	40	41	41	40	30	34	37	46	44
Post-test	59	45	54	54	46	52	52	53	52	57	59	55	52	53	57	54	60	59	56	59	57	45	47	56	57	51	48	51	54	42	55	55

Figure 4. Pronunciation Improvement in Percentage

Pronunciation Improvement

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
pre-test	72	57	66	61	54	43	70	79	74	79	59	67	52	54	62	79	75	75	59	70	72	66	64	66	67	67	66	49	56	61	75	72
post-test	97	74	89	89	75	85	85	87	85	93	97	90	85	87	93	89	98	97	92	97	93	74	77	92	93	84	79	84	89	69	90	90
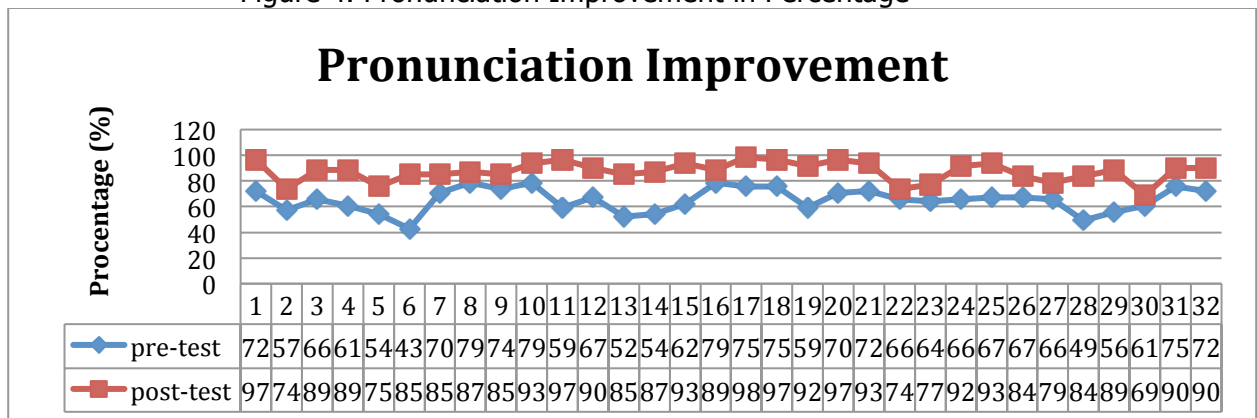
Looking at the detail of the stressed syllable awareness, the students' ability improves a great deal. There are three parts of the stressed syllable in this study:

a. Words with stressed syllable (on the 1st syllable)

From figure 5, the sudents' awareness went up significantly. In the pre-test, there were no students having awareness of stressed syllable. They only focused on how to pronounce the words correctly based on phonetic transcription from the dictionary. However, after class treatment, the overall percentage rocketed from 0% to87% with only 1% misplaced stressed syllable, whilst others did not pronounce the words with stress on one of its syllables. The students have already been aware that English language system is different with their mother tongue (*bahasa Indonesia*).

Below is the figure which shows the detail of words with stressed syllable (on the 1st syllable).

Figure 5. Words with Stressed Syllable (on the 1st syllable)

Stressed Syllable (on the First Syllable)

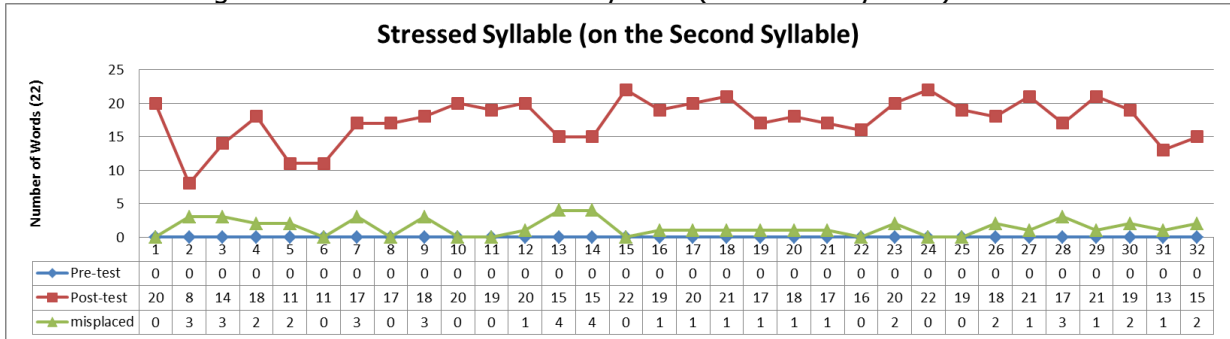|	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Pre-test	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Post-test	33	27	27	29	31	29	28	32	29	29	29	35	32	34	34	32	34	34	31	34	34	22	29	31	35	28	32	34	33	29	20	26
misplaced	0	3	2	3	0	0	2	0	2	0	0	0	3	1	0	1	1	1	0	1	0	0	1	0	2	2	2	0	2	5	2	6

(number of words (35))
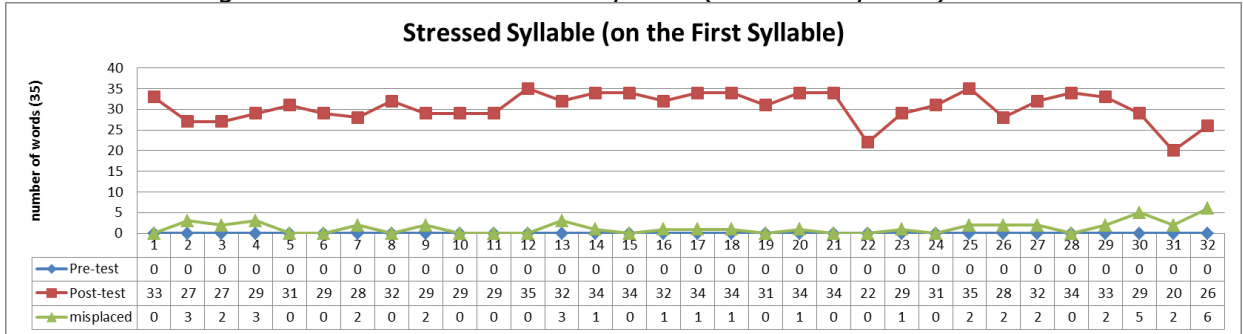
b. Words with stressed syllable (on the 2nd syllable)

Similar progress takes place for words with stressed syllable (on the 2nd syllable). There were no students having awareness of stressed syllable in the pre-test. Giving stress on the second syllable needs more efforts and practices because most of the words given are in the first syllable. Evenly the percentage of correct pronunciation in giving stress is 79% (17 out of 22) from 0% in the pre-test. Furthermore, some misplaced stressed syllable accounted to 9%, whilst others pronounced the word without any stress. The students's pronunciation progresses very well as compared to their previous knowledge in the pre-test. The figure of words with stressed syllable can be seen as follows.
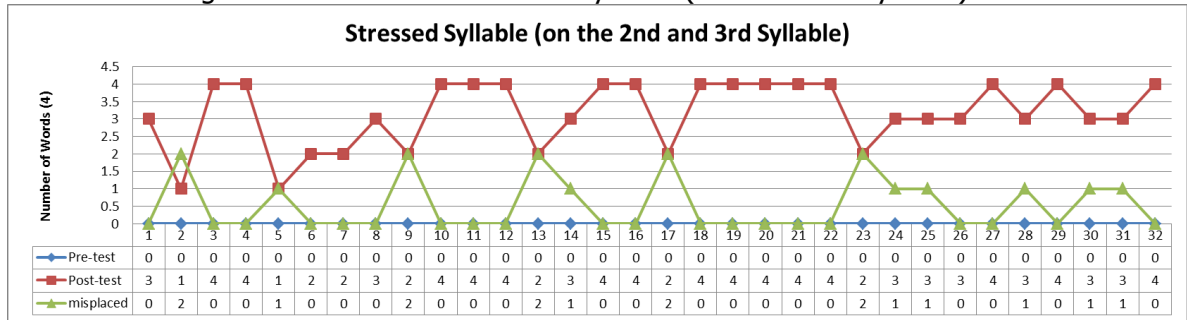
Figure 6. Words with Stressed Syllable (on the 2nd syllable)

Stressed Syllable (on the Second Syllable)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Pre-test	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Post-test	20	8	14	18	11	11	17	17	18	20	19	20	15	15	22	19	20	21	17	18	17	16	20	22	19	18	21	17	21	19	13	15
misplaced	0	3	3	2	2	0	3	0	3	0	0	1	4	4	0	1	1	1	1	1	1	0	2	0	0	2	1	3	1	2	1	2

(Number of Words (22))

c. Words with stressed syllable (on the 3rd or others syllable)

The variation of stress syllable is only few because basically English has three lexical stresses namely the primary, secondary and unstressed. However, in this test there are 4 words that have stress on the 3rd syllable (others). From the result of the post-test, it can be seen that there are 3 out of 4 words (75%) students who successfully pronounced the words with correct stressed syllable while others did not attempt to do so. Below is the figure of the pre-test and post-test improvement.

Figure 6. Words with Stressed Syllable (3rd or others syllable)

Stressed Syllable (on the 2nd and 3rd Syllable)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Pre-test	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Post-test	3	1	4	4	1	2	2	3	2	4	4	4	2	3	4	4	2	4	4	4	4	2	3	3	3	4	3	4	3	3	4	4
misplaced	0	2	0	0	1	0	0	0	2	0	0	0	2	1	0	0	2	0	0	0	0	0	2	1	1	0	0	1	0	1	1	0

E. Conclusion

Second language learners need to endeavor to master English pronunciation because the target language has different sound system. Stressed syllable is one of the problems to be encounter. Activity-based learning which employs traditional techniques is still effective to improve students' pronunciation especially dealing with the awareness of stressed syllable.

References

Abercrombie, D., 1967. *Elements of General Phonetics*. Edinburgh: University Press.

Celce-Murcia, M., D. Brinton, & J. Goodwin. 1996. *Teaching Pronunciation*. Cambridge: Cambridge University Press.

Dauer, R. 1983. Stress-timing and Syllable-timing Reanalyzed. *Journal of Phonetics 11*, 51–62.

Geeslin, K. L.. 2013 The Handbook of Spanish Sesond Language Acquisition. US: Wiley Blackwell.

Kreidler, C.W., 2004. The Pronunciation of English. 2nd Ed. Oxford: Blackwell Publishing.

Lloyd, J., 1940. *Speech Signals in Telephony*. Sir I. Pitman & Sons, Ltd.,London.

Nespor, Marina, Mohinish Shukla, Ruben van de Vijver, Cinzia Avesani, Hanna Schraudolf & Caterina Donati. 2008. Different phrasal prominence realization in VO and OV languages. *Lingue Linguaggio 7(2).* 1-28.

Storkel, H, L. 2003. Learning new words II: Phonotactic probability in verb learning. *Journal of Speech, Language, and Hearing Research, 46*, 1312–1323. Retrieved, January, 2017.