STRESS PATTERNS IN COMPOUND NOUNS AND NOUN PHRASES PRODUCED BY ENGLISH DEPARTMENT STUDENTS OF PGRI UNIVERISTY OF YOGYAKARTA 2014/2015

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ABSTRACT

This research is intended to find out the stress variation patterns in compounds and phrases produced by English Department Students (English-L2). It is conducted by analyzing the production of English compounds and phrases

The respondents of this study are 10 students of English Department (PBI-UPY). PRAAT software is applied to analyse the recordings, including measuring the pitch of each word, the highest pitch indicates the primary or strongest stress in each word. The instruments of this study are 5 English compounds and 5 English phrases which are visualy identical.

The result shows that English-L2 produce inappropriate stress pattern in English compounds and phrases. Most English-L2 are not able to distinguish between compound and phrase, they commonly stress the last syllables of the compound noun instead of the first.

Keywords: stress, pattern, pronunciation, English-L2

INTRODUCTION

Pronunciation has not been a major concern in English language teaching (ELT). Almost all English language teachers get students to study grammar and vocabulary, practise functional dialogus, take part in productive skill activities, and become competent in listening reading. Yet some of these teachers make little attemp to teach pronunciation in any overt way and and only give attention to it in passing (Harmer 2003). However, pronunciation is crucial in communication. It helps students to solve the serious intelligibility problems. Pronunciation not only makes students aware of different sounds and sound features, but can also improve their ability in using spoken English properly.

Communication in spoken English is organized by suprasegmental features. These suprasegmental features are similar to musical signals. The reason is that for the purposes of teaching pronunciation, the teacher needs to understand these musical signals work. Kelly (2001:3) states that suprasegmental features, as the name implies, are features of speech which generally apply to groups of segments, or phonemes. The features which are important in spoken English are stress, intonation, and how sounds change in connected speech which is called the rhythm. The features of these musical signals are usually bound up in first language. It means that the features are deeply rooted in the minds of students. Thus, it is common for Indonesian students of English to find it difficult when they

hear themselves speak with this suprasegmental features of English.

Looking more closely at that problem, a teacher can help overcome this barrier and other challenges by thinking of the goal of pronunciation instruction not as helping students to sound like native speakers but as helping them to learn the core elements of spoken English so that they can be easily understood by others. It can be said that the main concern in teaching pronunciation is intelligibility. Clearly, some pronunciation features are more important than others. Pronouncing the word 'water' with /wo:tə/ or /wadər/ may not cause a lack of intelligibility and it is less significant rather than stressing words and phrases inappropiately. In the case of inteligibility, students may have their own accent or reatain their first language accent. They do not have to sound exaclty like an American or a British. Therefore, speaking English with native accent such as Indonesian accent is acceptable.

Although students are allowed to retain their accent when speaking English, they may not be intelligible if they use inappropriate stress in communication. It can be stated that stess is crucial in spoken English. Students have to be able to use the patterns of stress in English. Stress plays crucial role in spoken English. Stress is applied in individual words in phrases, and in sentences. Shifting it around in a phrase or a sentence causes change emphasis or meaning. All English words will contain one syllable that has primary stress: a syllable that is more prominent than the other syllables in the word (Meyer,2002:210). In the word tiger, for instance, the primary stress falls on the first syllable because of the two syllables

in this word, the first syllable is more prominent than the second one.

Native speakers of English are intuitively aware that certain syllables in each word, and one syllable in particular, will be more phonetically prominent than others. In father, the first syllable seems stronger than the second; in about, it is the other way around; and in syllable, the first syllable stands out from the rest. These more prominent syllables are stressed; and stress is a culminative property, signalled by a number of subsidiary phonetic factors, which work together to pick out a stressed syllable from the unstressed ones which surround it. There are three important factors which combine to signal stress. First, the vowels of stressed syllables are produced with higher fundamental frequency; that is, the vocal folds vibrate more quickly, and this is heard as higher pitch. Secondly, the duration of stressed syllables is greater, and they are perceived as longer. Thirdly, stressed syllables are produced with greater intensity, and are thus heard as louder than adjacent unstressed syllables. In addition, stress has effects on vowel quality, in that vowels often reduce to schwa under low stress. To take our earlier examples of father, about, and syllable, the stressed syllables have the full vowels [a], [av] and [1] respectively, but the unstressed ones typically have schwa; we do not say [sɪlæbɛl], for instance, but [sɪləbəl] (or [sɪləbl]).

Understanding spoken English involves more than the ability to pronouncing individual words correctly. It also involves an ability to hear and produce the stress patterns of English words. Students of English tend to ignore stress patterns when they learn

pronunciation or vocabulary which consequently lead them to serious pronunciation problems, problem with comprehension and intelligibility.

English words with more than one syllable mostly have a fixed stress pattern. There are not many rules to show which syllable of a word will be stressed, learner of English usually has to learn the stress pattern of a word along with its meaning, spelling and pronunciation. Meanwhile, in considered Indonesia, stress is unimportant subject be to taught. Consequently, students of English in Indonesia barely perceive stress patterns of English. This wrong perspective of stress can cause vital intelligibility problem. In this study, the researcher intends to figure out the patters stress in English compound nouns and noun phrases produced by English Department students of PGRI University of Yogyakarta.

Problem

English does not have inflectional affixes to produce the phrase and compound word, English does apply the prosodic features to distinguish between phrase and compound. Therefore, students of Enlgish have to make clear distinction in pronouncing English phrase and compound. If students pronounce all the syllables in a phrase or compound equally with the same force, the listeners can find it difficult in understanding the conversation.

In English, phrase and compound are sometimes visualy identical and confusing for some students. In this case, students hardly recognise the stress patterns of a phrase or a compound which visualy identical and pronounce them appropriately. For instance, an English compound word *hotdog* will have different meaning when students put inappropiate

stress patterns (hot'dog) on that compound can directly change the meaning and the change it into a phrase. English does apply the prosodic features to distinguish both phrase and compound Pronouncing them incorrectly could cause problem in communication. Therefore, appropriate stress pattern in phrase and compound is highly required in spoken English.

Research Questions

This study is aimed at how do English Department students produce stress patterns in compound noun and noun phrase?

The results of this research may contribute to the literature by sugesting a knowledge in teaching pronunciation in Indonesia particularly giving an understanding about suprasegmental features in English pronunciation. The results of this study may shed light on how Indonesian students of English distinguish between English phrases and English compounds by using the stress. Teachers may also create materials and activities accordingly.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK Literature Review

There are some previous reserach related to second language production in accordance with suprasegmental features, one of them is Pinem (2013) who writes about how native speakers of Indonesian from Eastern part produce English long and short vowels. She finds that Indonesian speakers tend to lengthen the sounds, yet are able to shorthen them in phrase as a result of morphophonemic's process.

The other one is Rachel Adam (2013). He writes about how prosodic elemets have abilities to improve

pronunciation in English language learners. He states that second language pronunciation can improve to be near native-like with the implementation of certain criteria such as the utilization of prosodic elements. With the emphasis on communication meaningful understanding that speech production is affected by speech perception, there is a to integrate prosodics communicative activities providing situations to develop student pronunciation through listening and speaking. This short overview examines such elements. It can be concluded that this research needs to be conducted.

Theoretical Framework Suprasegmental

Suprasegmentals are aspects of speech which persist over several segments, such as duration, loudness, tempo (speed), pitch character - istics and voice quality; they are often thought of as the 'musical' aspects of speech, but may include other properties like lip-rounding. They are called suprasegmentals because they function over ('supra' in Latin) consonants and vowels (Ogden 2007:38). The effect of suprasegmentals is easy to illustrate. In talking to a cat, a dog or a baby, you may adopt a particular set of suprasegmentals. Often, when doing this, people adopt a different voice quality, with high pitch register, and protrude their lips and adopt a tongue posture where the tongue body is high and front in the making the mouth, speech sound 'softer'. Suprasegmentals are important for marking all kinds of meanings, in particular speakers' attitudes or stances to what they are saying (or the person they are saying it to), and in marking out how one utterance relates to another (e.g. a continuation or a disjunction). Both the

forms and functions of suprasegmentals are less tangible than those of con-sonants and vowels, and they often do not form discrete categories.

a) Stress

Stress has been mentioned several times already in this writing without any attempt to define what the word means. The nature of stress is simple enough, practically everyone would agree. Stress is the property of a word, just as accent is the property of a tone unit. In every polysyllabic word the stress is, with some exceptions, fixed on a particular syllable; thus, 'Patrick, P'ltricia, re'quest, de'liver, 'seven, e'leven. Stress is, then, the potential for accent. If a word is accented within a tone unit, its stressed (or only) syllable is the accented syllable of the tone unit. Of course, a word pronounced alone constitutes a tone unit by itself, and its stressed or only syllable is accented.

Word stress in many languages is fairly predictable, i.e. it is governed by rules that apply to almost the entire vocabulary, or lexicon. These languages are said to have fixed stress, or to be fixedlanguages. For example, Indonesian and Javanese stress normaly found at the last syllable (si'ji, lo'ro, te'lu). In Czech and Finnish it is always the first syllable of a word which is most prominent; in Polish the next-to-last syllable is stressed; in French, insofar as there is any stress difference at all, the last syllable is generally the most prominent. In languages like these, where stress is fixed on a particular syllable and therefore predictable, stress cannot differentiate meanings. contrast, In Spanish Russian have sets of words which differ only in the position of stress. How about English? English is not like Czech, Finnish, Polish, or French. We have already seen that the stress of a polysyllabic word may be on the first syllable ('cannibal), the second (a'rena), the third (after'noon), or some later syllable. In a general sense stress is variable in English. To be sure, stress is invariable for any specific word. Although there are dialect differences in stress (garage is stressed on the second syllable in North America, on the first syllable everywhere else) just as there are dialect differences in vowels (either, half, roof, for example), we are not free to put stress on whatever syllable we want. If a person still learning English as a new language says 'beginner instead of be'ginner, those who already know the language consider it a mispronunciation, even though the meaning is probably clear enough. In English words stress is not fixed - but does that mean that it is not predictable?

b) Level of Stress

There was a simple distinction between "stressed" and "unstressed" syllables with no intermediate levels; such a treatment would be a two-level analysis of stress. Usually, however, we have to recognise one or more intermediate levels. A strong form, then, is that pronunciation variant of a given word which contains a strong vowel, and from which no sounds have been omitted (or elided), like /haed/, /ei/, and /nv/. Strong forms, like strong syllables, can occur in both prominent and nonprominent positions, i.e. they can be either stressed or unstressed. A weak form, on the other hand, is a pronunciation variant which contains a weak vowel, or from which one or more sounds have been omitted, or both, like /ad/, hi, and hs'. Some words have more than one weak form: The word had, for example, has /hod/, hd', and Id/, and of has hv', hi, and

hi. The degree to which a word is weakened, or, in other words, the choice between two or more weak forms, depends on such factors as communicative situation and social class. Weak forms, like weak syllables, can occur only in non-prominent positions, i.e. they are always unstressed.

c) Stress in Compound

A compound word can be part of a phrase and a compound word can be part of a bigger compound word (which can be part of a phrase). Compound words can be nouns, adjectives, adverbs, or verbs. A special kind of construction, which we call a Greek-type compound, such as *astronaut* and *thermometer*, consists of morphemes that do not occur as independent words but recur in numerous combinations.

In the simple word *tennis* the first syllable is strong and stressed and the second syllable is weak and unstressed: S w. The simple word *racket* has the same pattern of strong and weak, S w. When the two words are put together to form a compound, *tennis racket*, the stress pattern is something like S w s w: the first syllable of *tennis* is strong and stressed; the first syllable of *racket* remains strong but is unstressed.

d) Stress in Phrase

As noted above, most compound nouns are stressed on the first word of the compound. As we will explore later, when a compound noun is part of a larger compound, the stress may be on either part. Syntactic groups — phrases — which consist of words of equal semantic weight typically have a stress on each of these words and, as we have seen, the unmarked accent falls on the last word of the group.

e) Stress Measurement

to measure stress, there are four components stress which can be used to analyse the stress. They are:

1) Loundness

Loudness is one of the main phonetic properties of spoken language and of individual sounds. It is related to the breadth, or amplitude, of the vibration of the vocal folds, or, to use an older term, cords [Stimmbänder, Stimmlippen]. The vocal folds are located behind the Adam's apple in the voice box, also called the larynx [Kehlkopf], at the the **windpipe**, or **trachea** of [Luftröhre]. The greater the amplitude of the vibration, the louder the sound. As a suprasegmental feature, or prosodic feature, loudness can distinguish meaning: It is one component of stress (together with pitch [Tonhöhe], duration, and sound quality), and thus contributes to the distinction between the noun record and the verb record, for example. It can also convey an emotional state such as anger. In the segmental phonology of English accents, however, it cannot distinguish meaning: The function of an individual sound within the sound system does not loudness change with the of pronunciation. Loudness is therefore not a distinctive feature.

2) Pitch

Pitch is also an important phonetic characteristic. It is related to the frequency of the vibration of the vocal folds: The faster the vocal folds vibrate, the higher the pitch. Like loudness, pitch can distinguish meaning at a suprasegmental level: It is a component of stress, and it shapes the intonation of connected speech. Stress and pitch movement tell us, for example, whether a sentence like *She speaks English* is meant to be a statement or a question. Pitch cannot, however, change the function of an individual sound within the sound system of English. By contrast, in over half the languages of the

world, a change of pitch can change the function of a sound, i.e. the basic meaning of a word can be changed simply by varying the pitch of one of its sounds. These languages are called tone languages. Asian and native American Many languages are t o ne languages, and there are more than 1,000 tone languages in Africa alone. English b e longs to the nontone languages. Pitch is therefore not a distinctive feature in the segmental phonology of RP or any other English accent.

3) Tone of voice

We must distinguish between sound quality and tone of voice. We use the term sound quality to refer to the quality that is characterised by the distinctive features, listed in the second category below. This means that the final sound in the word see, for example, has the same quality irrespective of the loudness, pitch, or duration with which it is pronounced. Tone of voice, also called voice quality, tonal quality, or timbre, refers to the difference in "colour" that we hear between two voices when they produce a sound with otherwise exactly the same phonetic features (purely phonetic and distinctive). This can be compared with the difference that we hear between two musical instruments. The different tones of voice are produced by different patterns of vibration of the vocal folds, which, in turn, cause different combinations of soundwaves that nevertheless result in the same sound quality. Tone of voice, like loudness and pitch, is a feature of spoken language as well as of the pronunciation of individual sounds. Because it is less important in the communication of meaning, however, it is not usually considered a suprasegmental feature. By contrast, some linguists call it a paralinguistic feature. The tone of voice makes us characterise the voice of a speaker as female, feminine, male, masculine, harsh, breathy) murmured, creaky, or thin, for example. It enables us to recognise a particular speaker or to describe the speaker as female or male, young or old, angry or exhausted, etc. But the tone of voice does not change the function of individual speech sounds. Like the other characteristics in this category, it is not a distinctive feature in the segmental phonology of English accents.

4) Duration and length

Duration and length both refer to the span of time during which a sound is sustained. The term duration is usually restricted to phonetics, and is used for the absolute or actual time taken in the articulation of a sound. The final sound in the word see, for example, can be held for different spans of time depending on the speaker, on the emphasis that is given to the word in the particular utterance, and on a number of other chance factors. Even though it is usually considered a long sound, it can actually be given a rather short pronunciation. The difference here is one of duration. It is a purely phonetic concept because the function of the sound, and with it the sound quality, remains the same. The term length is usually restricted to phonology. It refers to the relative time a sound is sustained as perceived by the listener. For example, the middle sounds in the words fool and full are commonly described as a long it and short u, respectively. The difference here is one of length. It can be seen as a phonological concept because the long it and short u have different functions within the English sound system. In other words, the difference in length can distinguish meaning, or at least it can help to

distinguish meaning. Many linguists length therefore count among the distinctive features. Why, then, do we not regard length as a distinctive feature in this manual, and list it with the phonologically relevant features below? If we listen carefully to the way the words fool and full are pronounced, we realise that it is not just the length that distinguishes the two middle sounds, but also their quality. A difference in length is almost always accompanied by a difference in sound quality, and it appears that the different quality is much more significant for our different perception of the sounds. In fact, it is quite possible to pronounce the long u in fool shorter than the short u in full. Labels like "long u" and "short u" can therefore be misleading. Thus, in this manual, we count length among the features that are only phonetically relevant.

RESEARCH METHODOLOGY Participants

To analyse the stress patterns in L2 English, the writer randomly chooses 10 students from Pronunciation Class in English Department of PGRI University of Yogyakarta. Since they are going to be English teachers, they have to be good at English pronunciation.

Object, Data and Media

The object of this research is the highest pitch in each compound noun and noun phrase in order to draw the stress patterns produced by the participants. The data of this research is the recording of participants. The reseach applies sound wave and pitch diagram. The wirter uses PRAAT software. It is a software which functions to describe sound of language then converted to sound wave or pitch.

Data Collecting Technique

There are two steps in collecting the data, firstly, the students are asked to listen to the 10 identical English compoun nouns and noun phrases. secondly, the students are asked to produce what they exactly heard while the researcher records them one by one. The model compound and phrases are taken from nouns American Accent Training writen by Ann Cook and published by Barrons 2001. After the listening and recording process are done, the sounds are converted to soundwaves and pitch graphs using Praat free software. The soundwaves and pithc graphs are segmented sentence by sentence to analyze the movement of pitch then the stress pattern can be drawn and seen.

The respondents of this research are the first semester students of English Department of Universitas **PGRI** Yogyakarta. The researcher only chooses randomly 10 students as the respondents to represent the stress patterns in compound nouns and noun phrases produced by nonnative speakers. The ten students come from different background. Since they are teachers to be, they should be able to pronunce every single English word correclty and manage to convey the actual meaning in conversation.

Data Analysing Technique

The collected data then will be analysed using pitch diagrams to see the highest pitch on each individual syllable in the instruments. As stated by Roach (1991) every syllable is said on some pitch; pitch in speech is closely related to the frequency of vibration of the vocal folds and to the musical notion of low and high-pitched notes. It is essentially a perceptual characteristic of speech. It means that if one syllable of our "nonsense word" is said with a pitch that is noticeably different from that of the others, this will have a strong tendency to produce the effect of prominence. For example, if all

syllables are said with low pitch except for one said with high pitch, the the highpitched syllable will be heard as stressed and the others as unstressed. After finding out the highest pitch from the data, the pattern of stress produced by English Department students can be drawn.

FINDINGS AND DISCUSSION

In this study, the data is quantitativie, it is obtained from the result of analysing the pitch frequencies of each instruments.

Research Procedure

Listening, Immitating and Recording

Language starts from ears. When someone begin to learn how to talk, he or she immitates sound from his/her mother. Speech production is dependent on earing, therefore, there is no substitute to listening to English sound if someone wants to learn talking. In this study, the researcher uses the listening and immitating technique to gather the data from the respondents. The instrumental words and phrases used in this study are visualy identical. Here are the instruments:

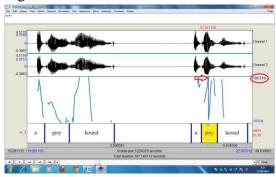
Noun Phrase	Compound Noun
grey hound	grey hound
white house	white house
hot dog	hot dog
black bird	black bird
green house	green house
dark room	dark room

Firstly, the respondents were asked to listen carefuly to the instrumental words and pharses produced by native speaker of North American. Secondly, the researcher asked the respondents to make good approximation to what they have heard and recorded the productions. The recording process was done by Praat software. Praat software is a free software developed in University of Amstredam. This software allows analysing human sound to find out

the pitch, intonation, intensity, formant, and so forth.

Analysing the Sound Wave Native Speakers' Soundwaves

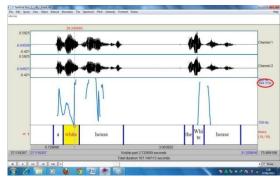
In this process, the researcher attemps to find out the highest pitch in order to describe the stress produced by the respondents. Here are some examples of English phrases and compounds produced by native speaker of American English.



Picture 4.1

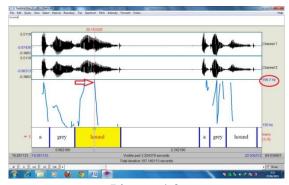
The picture represents two different utterances, the first utterance on the right is being analyzed using its pitch. It can clearly be seen that the highest pitch is in the first word 'grey' (198.2) which is indicated by the dotted vertical line. The red arrow points the exact position of the line. The picture also makes good indication of the word categories. It can obviously be noticed that the native speaker makes a clear distinction between phrase and compound (grey hound). In the picture, it is shown that the right utterance is an English compound.

Another example is shown by picture 4.2 where the highest pitch falls on the second first word. This means that native speaker makes obvious distinction between 'white house' as the office of the U.S. president and 'white house' as an ordinary house which is painted in white.



Picture 4.2

The next example is an utterance spoken by native speaker of American English which puts stress at the final word indicating the word as phrase. The speaker clearly stress the final word. It is indicated by the line which lays exacly in the second word.



Picture 4.3

In this research, there are 10 examples of soundwaves; 5 phrases and 5 compounds. However, the writer does not attach all soundwave pictures. Here is the summary of the instruments in this research. The tables bellow show the variation of stress in phrases and compounds.

	Max Pitch		
NOUN PHRASE	(Hz)	Words	
grey hound	199.7	2	
white house	195.8	2	
hot dog	196.6	2	
black bird	192.0	2	
green house	193.3	2	
dark room	198.9	2	

Table 4.1

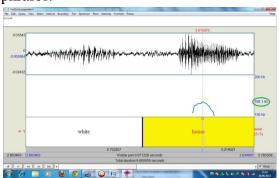
COMPOUND	Max Pitch (Hz)	Words
grey hound	198.2	1
white house	194.3	1
hot dog	192.3	1
black bird	198.5	1
green house	195.2	1
dark room	198.4	1

Table 4.2

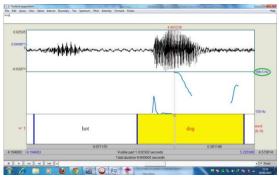
The table illustrates the different between the stress pattern on English noun phrase and compound produced by native speakers of American English. It can clearly be noticed that Native speakers of English simply make a clear distinction between noun phrase and compound by putting stress appropriately; stress on the first word indicates it as a compound whereas on second word indicating phrase.

English Department Students' Soundwaves

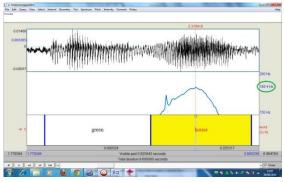
It will be different if we compare the graphs to English Department Students (English-L2) graphs. Here are the examples of soundwaves produced by English-L2. The respondents produce compound nouns which are similar to phrases.



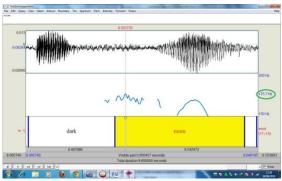
Picture 4.4



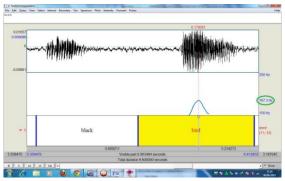
Picture 4.5



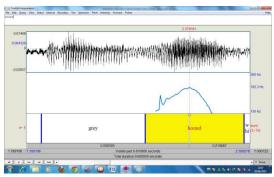
Picture 4.6



Picture 4.7



Picture 4.8



Picture 4.9

The pictures illustrate that English-L2 do not distinguish between English phrase and compound. Most of them put the stress on the second word or last word when producing compound. Here is the summary of the findings.

COMPOUND				
Grey hound	Correct stress	Number of respondents	Variation of Stress	Number of respondents
grey hound	/ 'greihaond /	3	/ greɪˈhaʊnd /	7
white house	/ 'waithaus /	2	/ wart haos /	8
hot dog	/ˈhɑːtdɔːg /	3	/ha:tvdə:g /	7
black bird	/ ˈblækbɜ:rd /	4	/ blækˈbɜːrd /	6
green house	/ 'gri:nhaos /	3	/ gri:n'haʊs /	7
dark room	/ 'da:rkru:m /	1	/ dɑːrˈkruːm /	9

Table 4.3

PHRASE					
Grey houn d	Correct stress	Number of respondent s	Variation of Stress	Number of respondent	
grey houn d	grei'haon d/	8	/ 'greihaon d /	2	
white house	/ wart'haos /	6	/ 'warthaus /	4	
hot dog	/ha:tvdɔ:g /	7	/ˈhɑːtdɔːg /	3	
black bird	/ blæk'b3:r d/	7	/ 'blækb3:r d/	3	
green house	gri:n'haʊs	8	/ 'gri:nhaʊs /	2	
dark room	/ da:r'kru: m /	6	/ 'da:rkru: m/	4	

Table 4.4

Tables describe how English-L2 make the similar pattern whether producing

compounds or phrases. English-L2 produce stress mostly on the last syllables. Only few of them who pronounce the words correctly.

CONCLUSION AND SUGGESTION Conclusion

Based the findings on discusion, this brings to the conclusion that English-L2 do not really notice the stress variation in English compound English phrase. The result illustrates that English-L2 produce inappropriate stress variation pattern in English compound, they give stress on the last syllables of the compounds. Most English-L2 are not able to distinguish between English phrases and compound. It is proved by the pitch which they produce have a broadly simillar pattern.

Suggestion

Here are some suggestion that may be helpful

For Teacher/Lecture:

Teachers should be able to use technology to make fair judgement in pronunciation. The use of some software including PRAAT makes the judgement more objective. This will also help students to recognise their own mistakes in pronunciation. By knowing pronunciation the students are automatically able to comprehend the spoken English since they are used to pronunce it on their own.

For Students

Students are expected to take some advantages in this study. Students should be aware of the different features between English and their mother tongue, some langauge in Indonesia do not have suprasegmental features. Students can also use use the software to measure their own sound quality in order to improve their pronunciation skill.

For the other researchers.

Researchers are expected to be able to create more interesting and effective material to boost students's ability in pronunciation practice.

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