Decoding the Suprasegmental Aspect: A Deep Dive into Word Stress Errors in English Pronunciation

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ABSTRACT

In pronunciation, students encounter significant challenges when it comes to stress. The majority of students often struggle with the accurate placement of stress in words. This research project seeks to identify the key aspects: the specific word categories that pose the most significant difficulty for students regarding stress placement, the syllable position where students commonly struggle with pronunciation, and the predominant types of errors made when attempting to pronounce stress in English. This research takes a quantitative descriptive approach to gather information about these three aspects. The study’s target population consists of 250 students from Tadulako University, with a sample of 35 students chosen through purposive sampling. Data collection was carried out through tests and mobile phones as research instruments, and the data were subsequently analyzed using basic statistical methods within the Excel application. The findings reveal that verbs are the most challenging for students to pronounce among various word categories, with 53 errors observed. Regarding syllable position, the ultimate position is the most difficult for students regarding placing stress on pronunciation, with 20 errors recorded. In line with the linguistic category, the error was identified in verb (48%), noun (25%), and adjective (27%) errors produced by students.

Keywords: Error analysis, Pronunciation, Word stress

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1. INTRODUCTION

Pronunciation is one of the critical parts of language components. Students who learn a second language should learn pronunciation to improve their oral skills. Based on Purwanto [1], pronunciation is essential in learning oral skills in a second language. According to Krisdianata and Bram [2], good pronunciation is essential to convey meaning when speaking. It can help other people understand the meaning of the word from the speaker. Pardede [3] states that good pronunciation skills are vital to speaking any language.
To become fluent in pronunciation, students should know the features. There are segmental and suprasegmental features. Segmental features refer to consonants and vowels, and suprasegmental features refer to stress, pitch, intonation, length, and juncture [4], [5]. Stress is an essential aspect of pronunciation that we should learn in English. It plays a crucial role in conveying meaning and can affect the overall intelligibility of speech. Research has shown that word stress errors are common among English language learners, and factors such as mother tongue influence, age, and target language exposure can impact the acquisition of English pronunciation, including stress patterns [6], [7]. According to Pusfitriyani [8], pronunciation has several aspects, including word stress. Additionally, the acquisition of prosodic features, including word and sentence stress, has been identified as a critical factor in achieving good pronunciation and speech intelligibility for English as a Foreign Language (EFL) learners [9]. Therefore, understanding and mastering stress patterns is essential for effective English pronunciation, especially for non-native speakers.

Word stress is the emphasis or relative prominence given to a specific syllable in a word. It is a fundamental aspect of pronunciation in many languages, including English. English words with multiple syllables usually do not pronounce each syllable with equal weight, so each syllable within a word can be stressed or unstressed [10]. For example, the word vegetable in English will be pronounced /ˈvedʒtəbl/. To pronounce a vegetable, the first syllable seems more substantial than the second syllable. In the first syllable, there is an emphasis on the word stress. Thus, it can give a true meaning, and the listener can understand the speaker's meaning. English stress pattern is rather complex. According to Shahin [11], the location of stressed syllables in English is unpredictable and must be determined and studied individually. Stressed syllables are the most carefully articulated portions of speech and are presumed to provide the reliably encoded information needed for automatic recognition of continuous speech [12]. English words have a fixed stress pattern [13]. However, the exact location of stress cannot be accurately determined using traditional methods, as they cannot describe the chaotic characteristics of speech signals well or fully approximate the complex nonlinear relationship between features [14]. This may be demonstrated by examining the dictionary's phonetic transcription format. Therefore, students must be familiar with the parts of a syllable in order to determine where stress is placed. The onset, nucleus, and coda comprise the first four parts, while the rhyme is formed by combining the nucleus and coda [15]. The study of word stress is an essential area in phonology and linguistics, and it plays a crucial role in language acquisition and communication.

In contrast, the position of stress in Bahasa Indonesia does not change the word's meaning [16]; for example, the word Me-la-ku-kan. When it is stressed on the first syllable (Me-la-ku-kan), on the second syllable (me-la-ku-kan), or the last syllable (me-la-ku-kan), it does not change the true meaning. Therefore, in Bahasa Indonesia, the meaning of words remains unaffected by the placement of stress. In contrast, in English, stress can affect both pronunciation and meaning [17]–[19]. According to Sabaruddin et al. [20], the word address has two meanings: as a noun, it refers to a place of living; as a verb, it means to summon someone. It may be deduced that the proper placement of syllable stress, stressing
the first syllable in a noun and the second syllable in a verb, distinguishes the meaning of an address.

The learners' first language can affect the pronunciation of English stress. For instance, Iraqi Arabic and Kurdish EFL learners' performance in producing English lexical stress differs based on their first language [10], [21]. The same thing also occurred in Indonesia, where many learners pronounced the word as they would in their mother tongue. They did not focus on how to pronounce words correctly, nor did they pay attention to stress patterns in English. Regardless of how to pronounce words with word stress, their attention was only on how to pronounce the word correctly.

There were several previous studies about the analysis of word stress errors. The first study by Haryani [22] is entitled “The Analysis of Students’ Errors in Stress Placement in English Pronunciation.” The finding showed that the total percentage of errors from the oral and written tests is 74.75%, which is categorized as a high error. The second study by Widagsa et al. [23] is entitled “The Influence of Indonesian Prosodic Features on English Word Stress Production.” The researcher used PRAAT software to analyze the recordings, including measuring the pitch of each word. This study showed that of the 36 words that became the instrument of this research, less than 50% were pronounced correctly, and the highest pitch fell on the last syllables. The following study by Syarifah et al. [24] is about English word stress production of male and female migraine students. The previous researcher found that the Madurese dialect significantly positively influences two-syllable words with stress on the first syllable. Meanwhile, male and female students were almost the same in pronouncing stress correctly on three to four-syllable words. Last, gender does not influence the pronunciation of word stress.

In general, students who learn English make errors in pronouncing word stress. Based on Botley [25], systematic errors reveal poor target language knowledge. In line with Arifin [26], errors result from a learner's failure to implement their skills both orally and in writing, as opposed to errors caused by a lack of skills. The word error is used more formally than mistake. The study aims to identify the errors made by students in stress placement when pronouncing English words using Dulay Taxonomy Error. As quoted by Dulay et al. (1982: 146-192 in Anggraini et al. [27]), Chomsky reviewed the literature and presented the most helpful and commonly used basis for descriptively classifying errors. These are linguistic categories, surface strategies, comparative analysis, and communicative strategies. Linguistic categories classify errors based on one or both corresponding linguistic components and the impact of the error. Based on Islam et al. [28], the components of language include discourse (style), semantics and lexicon (meaning and vocabulary), syntax and morphology (grammar), and phonology (pronunciation).

Meanwhile, Dulay, Burt, and Krashen (1982:150-163 in Hikmah [29]) divided errors into four types based on surface strategy taxonomy. These are omissions, additions, misformation, and misordering. Next, According to Simbolon et al. [30], comparative taxonomy is based on comparing second language error structures with other types of structures. The last communication strategy handles errors by considering how they may
affect the reader or listener. In this way, the focus is on distinguishing errors that lead to poor communication from misconception.

The researcher desires to know the same problem from students at the English Department of Tadulako University. In pronunciation courses, when the lecturer is tasked to pronounce some words, the students only pronounce the word, like pronouncing phonetic transcription, without pronouncing the word stress correctly. Although students have much vocabulary, they do not pay any attention to word stress; they concentrate on saying the word right. This occurred due to the students’ lack of independent practice, word stressing, and pronunciation correction habits.

Looking at reality, the researcher was interested in examining the error of word stress in English pronunciation made by students in the third semester at the English Department of Tadulako University. This study only analyses nouns, verbs, and adjectives regarding stress placement. The researcher determined kinds of pronunciation based on Dulay Taxonomy error, which is a linguistic category.

2. METHOD

This study used quantitative description. It aims to describe and calculate data related to errors produced by students in pronouncing word stress. According to Watson [31], quantitative research includes measurements and assumptions that the phenomenon under study can be measured. In line with Queirós et al. [32], quantitative research focuses on objectivity and is especially important when collecting quantitative measurements of variables and making consequences from population samples. Descriptive research is a research method that aims to describe existing phenomena that occur in the present or the past. Putra [33] states that descriptive research with the quantitative approach aims to express a situation as it is or is accurate. It can be concluded that quantitative descriptive methods aim to calculate the data, describe it with numbers, and draw conclusions according to the actual situation.

Population is usually about the number of people living in a particular homeland [34]. Meanwhile, the population of this research was the third-semester students of the English Education Study Program at Tadulako University, consisting of 250 students, with the sample students in class C, consisting of 35 students, chosen through purposive sampling. Test and Google Classroom applications were the instruments to collect data. The test contained a list of word stressors consisting of nouns, verbs, and adjectives that the students should pronounce individually.

There are several techniques to analyze the data in this research. First, the researcher checked the student’s voice when pronouncing the word list. Next, the researcher identified students’ errors in pronouncing a list of words. They then divided the errors of the students according to the stress placement. This step helped the researcher answer questions number one and two. To calculate the data, the researcher used the Excel application.
3. RESULTS AND DISCUSSION

3.1. Result

The results are presented in three main sections. The first section shows the results of the most challenging word category for students to place the stress. Second, the name of the stress syllable position is difficult for students. Third, the error types dominantly occur in pronouncing stress in English by Dulay’s Taxonomy error, a linguistic category.

3.1.1 The Number of Students Error in Pronouncing Noun

a. Bisyllabic Noun

The errors in bisyllabic nouns just occurred in the penultimate syllable. The total number of errors produced by students in the penultimate syllable was two out of 35.

b. Polysyllabic Noun

Polysyllable is a noun. Polysyllables are used to describe words that have more than two syllables [35]. Such words have syllables ranging from three and above. Meanwhile, the errors in polysyllabic nouns occurred in penultimate, ante-penultimate, and pre-ante-penultimate syllables.

![Figure 1. The percentages of student errors on polysyllabic noun](image)

Figure 1 indicates the percentage of students' total errors in pronouncing stress in polysyllabic nouns. The error in the polysyllabic noun occurred in the penultimate, antepenultimate, and pre-antepenultimate syllables.

In general, the penultimate and pre-ante penultimate errors are higher than in the antepenultimate syllable. There were 10 (38%) students who were misplaced in the penultimate syllable, 6 (23%) students who were misplaced in the antepenultimate syllable, and 10 (38%) who were misplaced in the pre antepenultimate syllable.

3.1.2 The Number of Students Error in Pronouncing Verb

a. Bisyllabic Verb

The data below shows the results of students' errors in pronouncing stress in verbs located on bisyllabic verbs.
Table 1. The number of student pronunciation errors on the bisyllabic verb

<table>
<thead>
<tr>
<th></th>
<th>Ultimate</th>
<th>Penultimate</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisyllabic</td>
<td>12</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>67%</td>
<td>33%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows the percentage of total student pronunciation errors on bisyllabic verbs. The result represented that the error in the ultimate syllable is higher than in the penultimate syllable. The errors produced by students in the ultimate syllable were 12 (67%), and in the penultimate syllable were 6 (33%).

b. Polysyllabic Verb

The diagram below indicates the results of students’ errors in pronouncing stress in verbs located on polysyllabic verbs.

![Figure 2. The percentage of student errors on polysyllabic verb](image)

Figure 2 indicates the percentage of total student errors on polysyllabic verbs. The student errors in the penultimate syllable are lower than those in the ultimate syllable. In the ultimate syllable, there were 20 (57%) student errors, and in the penultimate syllable, there were 15 (43%) errors produced by students.

3.1.3 The Number of Students Error in Pronouncing Adjective

a. Bisyllabic Adjective

An adjective that indicates a word has two syllables is called bisyllabic [36]. The diagram below represents the results of students’ errors in pronouncing stress in verbs located on bisyllabic verbs.
Figure 3 shows the percentage of total student errors in pronouncing stress in adjectives based on bisyllabic adjectives. The student errors occurred in the ultimate and the penultimate syllable. According to Figure 3, the student errors in the ultimate syllable are higher than in the penultimate syllable. There were 13 (65%) errors produced by students in the ultimate syllable and 7 (35%) errors produced by students in the penultimate syllable.

b. Polysyllabic Adjective

On the polysyllabic adjective, the student errors just occurred in the penultimate syllable. The errors produced by students in the penultimate syllable were ten errors.

3.1.4 The Number of Students Error Based on Linguistic Category

The data below shows the results of students' errors in pronouncing stress based on linguistic category by Dulay.

Table 2. The number of student errors in pronouncing English word stress based on Linguistic Category

<table>
<thead>
<tr>
<th>Linguistic Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun</td>
<td>28</td>
<td>25%</td>
</tr>
<tr>
<td>Verb</td>
<td>53</td>
<td>48%</td>
</tr>
<tr>
<td>Adjective</td>
<td>30</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>111</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 2 shows the total and percentages of student errors based on linguistic category. The information showed that students made noun, verb, and adjective word errors. The total error produced by students in verbs is higher than that produced by students in nouns and adjectives. There were 28 errors produced by students in nouns, 53 by students in verbs, and 30 by students in adjectives.

3.2. Discussion

3.2.1 The Most Difficult Word Category for Students to Place the Stress

Based on the data in the previous pages, the most challenging word category for students to place stress is a verb. The total number of errors on verbs was 53 errors produced by students. The finding of this research was similar to the previous research by Haryani [22], which focused on nouns and verbs as the most challenging categories for

The percentage of total student errors on verbs is higher than on nouns and adjectives. It is obtained based on the percentage of students in the placement of stress English syllables. On the bisyllabic verb, the error in the ultimate syllable was 67%, and in the penultimate syllable, it was 33%. Furthermore, on the polysyllabic verb, the error in the ultimate syllable was 57%, and in the penultimate syllable, it was 43%.

The research results showed that students' errors in pronouncing the word stress were located in the verb category. This is most likely a result of their native Indonesian language proficiency. In cases where a word's meaning is unaffected by stress, Indonesians tend to place stress anywhere.

3.2.2 The Name of Stress Syllable Position Which Is Difficult for Students to Pronounce

The finding in the previous pages indicated that the name of the stress syllable position, which is difficult for students to pronounce verbs, is in the ultimate syllable. Based on the data collected, most student errors on bisyllabic and polysyllabic occurred in the ultimate syllable. The percentage of total student errors in the ultimate syllable on bisyllabic verbs was 67% error. Meanwhile, the total percentage of total student errors in ultimate syllables on polysyllabic verbs was 57% error produced by students.

Students should pronounce the stress in the ultimate syllable in the verb category. They put it in the penultimate syllable. The following example of a student's mispronunciation of the word stress:

Table 3. The example of student errors in pronouncing word stress in the verb category

<table>
<thead>
<tr>
<th>Correct stress</th>
<th>Error stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expect</td>
<td>Expect</td>
</tr>
<tr>
<td>Corrupt</td>
<td>Corrupt</td>
</tr>
<tr>
<td>Recommend</td>
<td>Recommend</td>
</tr>
<tr>
<td>Accept</td>
<td>Accept</td>
</tr>
<tr>
<td>Introduce</td>
<td>Introduce</td>
</tr>
</tbody>
</table>

Table 3 indicates that students tend to place stress wherever they want. Even though there are stress rules in Indonesian, as stated by Basri et al. [37], the stress pattern of BI is that if the penultimate syllable contains a schwa and the penultimate syllable contains a non-schwa, stress falls in the penultimate syllable and the schwa drops. If the penultimate syllable contains a schwa and the syllable before in the penultimate also contains a schwa, stress falls on the last syllable.

3.2.3 The Error Types Dominantly Occur in Pronouncing Stress in English Pronunciation

According to Dulay's Taxonomy Error, four types of errors were identified: linguistic categories, surface strategies, comparative analysis, and communicative strategies [27]. However, this research only analyzed the student error using the linguistic
category and focused on phonology, especially in pronouncing word stress. The data shows student verb errors are higher than in nouns and adjectives. The total number of errors in the verb was 48% produced by the student, the total error in nouns was 25%, and the total error in adjectives was 27% produced by the student. It happened because students pronounced the stress in the wrong position or did not pronounce the correct stress according to the syllable position.

Based on the data collected, it happened because the sample is a native speaker of Indonesian. As explained above, stress does not affect the word's meaning in Indonesia. Students can stress the ultimate or the penultimate syllable as long as people understand the meaning of the word delivered.

Students assume that stress in English can be placed anywhere and does not affect the meaning. In reality, stress in English is unpredictable because stress can fall on the ultimate, penultimate, antepenultimate, and pre-ante penultimate syllables. Stress in English has rules that must be understood. The incorrect placement of stress may influence a word's meaning. For example, “address” was originally a noun, but the meaning becomes a verb when stress is put on the ultimate syllable. It can be concluded that students should pay attention when pronouncing the word stress and put the stress in the correct position.

4. CONCLUSION

Based on the findings and discussion, the verb is the most challenging category for students to place the stress. The name of stress syllable positions, which is the most difficult for students, is in the ultimate syllable. In Bahasa Indonesia, stress placement is not given more attention when saying a word or in speaking skills. This is because stress does not change the word's meaning or in the sentences.

Moreover, based on linguistic category, the error of this research occurred in noun, verb, and adjective words. Students did not pronounce the word according to stress placement. The sample of this research is a native Indonesian speaker, where stress can occur in Bahasa Indonesia in the ultimate, penultimate, antepenultimate, and pre-ante-penultimate syllable positions. So, students assumed that stress in English is similar to stress in Bahasa Indonesia. They can stress all syllables and do not affect the word's meaning.

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