Stress Assignment Patterns in Compound Words Among Prospective English Language Teachers in Universities in South Western States of Nigeria

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Abstract: *English stress, a key suprasegmental feature, remains a major challenge for Nigerians learning English as a second language. While previous studies have examined intonation, performance, and varieties of Nigerian English, limited attention has been given to stress in compound words. This study investigated stress assignment patterns among prospective English language teachers (PELTS) in universities across South-West Nigeria. A mixed-methods design was employed, involving 100 PELTs from four universities. Data were collected through a 20-word corpus analyzed with PRAAT Speech Analysis Software and a survey questionnaire. Guided by Metrical Phonology and Cognitive Social Learning theories, the study analyzed pitch, intensity, and duration across native and non-native groups. Findings revealed consistent difficulty among PELTs in assigning stress correctly to compound words, affecting pronunciation intelligibility. The study recommends targeted phonological training, integration of speech technology, and curriculum reforms to enhance stress competence among future teachers.*
Keywords: stress, suprasegmentals, compound words, pronunciation, Nigerian English, phonology

INTRODUCTION

Previous research on Nigerian spoken English has focused largely on students' performance, intonation tune assignments, and the varieties of English spoken across the country. These studies consistently reveal significant differences between the stress assignment of Standard British English speakers and that of educated Nigerian speakers. Stress, as a prosodic feature, plays a vital role in effective English pronunciation, and its correct placement is crucial for intelligibility. This becomes particularly important in compound words, whose written forms often resemble noun phrases, thereby creating potential confusion for learners and teachers alike. Mastery of stress

assignment patterns in such words is not only essential for accurate communication but also for effective English language teaching, especially as teachers are often considered models for learners.

This study, therefore, investigates the stress assignment patterns in compound words among prospective English language teachers in universities across South-Western Nigeria. It seeks to establish whether these teachers assign stress appropriately, identify the common patterns they use, and examine the challenges they encounter. The research also explores the factors influencing their choices of stress placement and considers whether these future teachers can truly serve as models of standard stress patterns. Ultimately, the study aims to provide practical recommendations that will enhance both the teaching and learning of English stress, thereby improving pronunciation, communication skills, and pedagogical effectiveness.

LITERATURE REVIEW

The English Syllable: Ladefoged and Johnson (2011: 248) opine that a syllable is the smallest unit of speech and Roach (2010: 56) states that a syllable which is a very important phonological unit can be described phonetically and phonologically. Phonetically, a syllable is seen in relation to the way it is produced and the way it sounds. It is usually described as consisting of a centre with little or no obstruction to airflow and which sounds comparatively loud before and after this centre. Languages differ in terms of phonotactics as there are considerably permissible numbers of consonant clusters in the syllable structures The English syllable can have a vowel at the beginning or with one, two or three consonant clusters but not more than three consonants. For instance, in 'a' /æ/or /eɪ/ or /Ə/, 'cat' /kæt/, 'spat' /spæt/, 'spray' /spreɪ/,and so forth. In the same vein, the English syllable can also have a vowel at the final position or with one, two, three or four consonant clusters but not more than four.

The English Stress assignment: Some researchers opine that it is difficult to provide a single or unified definition of stress but we can say that a stressed syllable is more prominent than its neighbours. Cruttenden's (1986) view is that stress, in relation to prominence, should be seen in a more general term rather than in a specific way and that loudness plays a minor role in producing prominence. According to Gussenhoven (2004:14), stress is the prosodic feature of the phonological unit in English that is referred to as syllable. Atoye (2001) sees stress as a suprasegmental feature of utterances that is described as perceived prominence. Robin (1971) claims that stress should not be equated with prominence. He sees stress as an articulatory term which has to be distinguished from prominence that he describes as a more subjective term relating to the more noticeable acoustic impression conveyed by certain parts of a stretch of speech as against the rest. Stress is a *generic term* for the relative greater prominence exerted in the articulation of part of an utterance.

However, Roach (2010) avers that stressed syllables are noted to be stronger than the others which are unstressed. He points out that the differences between strong and weak syllables are of some linguistic importance. In addition to this, Ladefoged and Johnson (2011: 249) assert that stress is a suprasegmental feature of utterances which makes a syllable to be pronounced with a greater

amount of energy than an unstressed syllable thereby causing the syllable to be more prominent in the flow of speech. But these claims may not be true in the case of most of the Nigerian languages. For instance, in the Yoruba language, we cannot attest to prominence contrast between syllables and the alternation between strong and weak syllables. The main reason for this disparity is because Yoruba language, like other Nigerian languages, is syllable-timed unlike English language that is stress-timed.

Furthermore, Hyman (1975) observes that stress can be described from both phonetic and phonological points of view. There are four phonetic variables that are identifed as indicators of stress in English, they include: pitch variation, intensity, vowel quality and vowel duration. According to him, the primary stress, secondary stress and the unstressed are the three types of stress in the English language. These three types of stress reveal the two levels at which stress can occur, namely word level and sentence level. The primary stress is the strongest and it is indicated by a vertical mark |'| placed above the line just before the syllable which carries it. While the second one is the secondary stress which is denoted by a vertical mark |,| placed just below the syllable which carries it found in polysyllabic words. The unstressed or weak stress is unmarked and it is the weakest.

Researchers have observed that stress could be described in terms of production and perception. It has also been established that one of the most important features of English pronunciation is that some of its syllables are strong, while some are weak. (Duncan, 1969; O' Connor, 2004; Akinjobi, 2004: 49, Roach, 2010, Aina, 2014, Aina, 2021). The terms 'strong' and 'weak' can be used to refer to phonetic characteristics of syllables. The vowel in a weak syllable tends to be shorter, of lower intensity (loudness) and different in quality compared to that found in a strong syllable. The main features of a stressed syllable apart from being a strong one are its louder in volume, higher in pitch and longer in duration that an unstressed syllable.

Functions of stress

Stress distinguishes between words, that is, it has a differentiating function. For example, `insult' and `compound'. Each of these has two different readings, depending on the position of the main stress. In the two words, 'insult' and 'compound', if the first syllable is stressed, it is a noun: `an `'insult', `a 'compound', but if the second syllable is stressed, it is a verb: `to in'sult', `to com'pound'. Stress can be used to mark contrast as in `I said a 'big farm not a 'pig farm.' It is used to indicate special emphasis as in `He 'ran all the way to the farm.'

Rules Governing Stress Assignment

The nature of English has made it very important for linguists to accurately formulate rules governing stress assignment in such a way that it can be easily understood by non-native learners of the language. Because not all languages have stress and those that do vary considerably in the manner in which it is applied and the way it impacts on intelligibility and comprehensibility, many researchers agree that there is the need to pay attention to word stress in the teaching of English as a foreign language. However, there is considerably less agreement about how exactly the

production of correct stress patterns should be taught. This is because of the unpredictable nature of English stress pattern.

English word stress rules are numerous and are also notoriously prone to exceptions. Likewise, many theorists and linguists advocate that students should learn the stress of individual word as part of the acquisition process for each new lexical item. (Jones, 1962; O' Connor, 1980 & 2005; Roach, 1991; 2004; 2010). Knowles (1987:117) avers that the regularity of stress patterns across some word groups has led to the view that the relative prominence of syllables within English words is 'not entirely capricious and a number of attempts have been made to formulate sets of rules' to both describe and predict stress placement (Arnold, 1957; Burzio, 1984; Chomsky & Halle, 1968; Fudge, 1984; Halle & Keyser, 1971). It is because of the very large number of exceptions to many of these rules that they are often referred to rather more circumspectly as "patterns" (Carr, 1999: 88), "Generalizations" (Bauer, 2009:140), "tendencies" (Yavas, 2006: 152), "regularities" (Giegerich, 1992: 183), "general statements" (Kreideler, 2004: 198) and "general principles" (Jones, 1962:249).

Despite these challenges in predicting stress assignment in English words, and the common focus in language classrooms on what Brown (1973: 53) terms "unstressing", there seems to be potential value in teaching particular rules in certain circumstances. Thus, we can say that there is the need to teach rules governing stress assignment in specific groups of words that are in high use or in high need for specific learners. It will be of benefit to the learners if these groups of words are taught with the specific rules governing their stress assignments. With the appropriate application of the rules, the correct intonation and mutual intelligibility and comprehension will be achieved between non-native and native speakers of English.

Davenport and Hannahs (2010: 83) state a number of factors that determine where stress falls in a word. These factors according to them can be based on the word class whether noun, verb, adjective, verb and so on. It can also be determined by the nature of any suffixes that may form part of the word such as –ate, -ic, -ity, etc. for instance words which have suffixes`-ic', `-ity', `-ation'  have their stress assignment on the penultimate syllable and they are called stress-shifting suffixes as in the words ˈphotograph' and 'photoˈgraphic'. However, `-ly', `-al', `-ness' are referred to as stress-neutral because they have no effect on stress placement as in `ˈperson' and `ˈpersonal'.

Another factor is the syllable weight that usually depends on whether the syllable is heavy or light. Davenport and Hannahs consider the morphological structure of adjectives in English as a significant determinant of stress assignment. For example, those with suffixes `-full', `-ble' behave like nouns, while those without suffixes behave like verbs.

Compounds words

Compounds words are composed of two words and they have more than one root morpheme which can function both grammatically and/or semantically as a single word. The main characteristic of a compound word is that it can be analysed into two words, both of which can exist independently

as English words. There are three different methods for writing compounds words. They can be can be written as one word as in bathroom, `blackboard; the two words can be separated by a space like `mud house, `power bank and they can also be separated with a hyphen as in `kind-hearted, `open-minded', `soul-searching (Roach, 2010:85 and Cruttenden 2001:229).

The rule governing stress assignment here is that both patterns of placing primary stress on the first constituent word and the second constituent of the compound are possible. The most familiar type of compound is the one which combines two nouns and which normally has the stress on the first element.

Stress Assignment in Nigerian English

Previous linguistic reseachers such as Duncan, 1969; Banjo, 1970; Kujore, 1991; Onuigbo, 1996; Amayo (1981), Akinjobi, 2004, Udofot (2009), Aina, 2014, Aina, 2021 have been able to identify English stress assignment as a major hurdle for most Nigerian English speakers. It has been confirmed that a Nigerian speaker hardly uses stress but tone and word boundary lowering which gives the impression of pitch accent and shifting of stress to English ears. This is in agreement with what Bamgbose (1971, 1982), Eka (1988), Jibril (1986), Ufomata (1996), Udofot (1997) and Jowitt (2000) observe that there is the presence of more stressed words / syllables in Nigerian English than there would be in a native English version. As Egbe (1979) points out, in a Nigerian speech, one does not usually hear any syllable receiving a nuclear stress as all of them are given full and almost equal weight or duration.

There are no changes in tune, in tempo and in voice quality as we have in the manner of the RP. This is because of the equal attention that is paid to every syllable in the sentence. In addition, there are no accentual patterns that can differentiate content from function words.

Kujore (1985: xiv) states that Nigerian English pronunciation is characterized by ''delayed primary stress''. Thus, there are more accented syllables than expected in the SBE pronunciation. Akinjobi (2004:89) notes that there is a striking resemblance between the analysis of Kujore (1985) and Jowitt (1991) but points out that the latter says there is a tendency to shift the primary stress to the right in Nigerian English. Jowitt opines that the shifting of stress assignment is more systematic with verbs than with nouns and adjectives. There is the tendency to shift stress as far to the right as possible in compound words and complex noun phrases with pre-modification. This according to Jowitt applies to stress assignment at the sentence level. This is because it is not unusual to assign nuclear stress on an unsuitable word in the sentence and that contrastive stress that is informational in SBE is not often used appropriately in NE. Working on "vowel weakening and unstressed syllable obscuration in educated Yoruba English", Akinjobi (2004) also concludes that the stress patterns of educated Yoruba English speakers are markedly different from that of the Standard British English.

Theoretical framework

Metrical phonology (MP)

MP is a derivative of Generative Phonology (Goldsmith, 1990:1) and it is associated with Liberman and Prince (1977), Kager (1995:365). In it, prominence relations are captured using metrical trees and grids, reflecting the constituents involved. Metrical phonology does not use the numbering of stress level and indefinite lowering of syllable found in GP. But the stress terms are labelled in a tree structure in the nodes which are divided into s (strong) and w (weak) syllables (Cruttenden, 1986:30 & 2010). Hayes (1992:424) states that stress is not a feature, rather, it is the hierarchical rhythmic organization of utterances. In Metrical Phonology, the labelling captures the relationships and culminative properties of stress; content words have at least one stressed syllable. Stress is hierarchical, delimitative in those languages where stressed and unstressed syllables alternate and where clashes (adjacent stresses) are avoided. It is also enhanced segmentally through germination or by vowel lengthening (Kager 1995:337). Halle and Idsardi (1995:439) argue that stress and syllable structure are represented on different planes. They are not strictly hierarchically layered.

According to Giegerich (1992:256), there is a rule that governs the assignment of stress in compounds which is called Lexical Compound Prominence Rule (LCPR).This rule is for the analysis of the simple and compound words. For example, in a pair of sister nodes (NI N2) L, where L is a lexical category, N2 is strong, if branches above the word level. It is on this note that metrical grid was adopted for this research as it would display the hierarchical representation of the two elements involved in each of the compound words. The MP through its metrical grids will help display the visual representations of the stress assignment in the compound words.

Metrical Theory has two means: the metrical tree (or the arboreal) which is discussed above and the grid formalisms. The grid formalism represents the beats of utterances and their weights through its multi-layered representation which shows the beats and the internal structure of the syllables, thus, its adoption in this study.

Cognitive Social Learning Theory/Modelling theory

Bandura (1963) and Bandura and Walters (1973), the proponents of Cognitive Social Learning Theory, claim that learning takes place through observation and modelling.   According to Morgan and King (1975), "Modelling is copying or imitating another person's behaviour". It is imitating another individual, or modelling one's own behaviour after another member of the species. A person watches or hears someone else say or do something, then attempts to copy it. Bandura states that the environment causes behaviour and behaviour causes environment as well. This he labels "reciprocal determinism". Learners imitate exactly what they see their teachers do. For proper imitation to take place, the teacher should ensure the learners pay proper attention. Whatever teachers model, there will be retention and reproduction. This implies that if teachers do model wrongly, the learners too will retain the wrong   which they will eventually reproduce. Some social

behaviour theorists, such as Brown (1973), argue that learning by modelling is the major channel through which personality characteristics are developed.

The teacher's way of oral delivery is reflected in the way and manner his students pronounce. Jibril (1979) avers that the divergence between Northerners' and Southerners' pronunciation in Nigeria seems to be the fact that Irish and German missionaries, who among others, first taught English to Southern Nigerians (or those Sierra Leonians who later taught Southern Nigerians) might have passed on their own tendency to their students, while the RP-speaking teachers who first taught English to Northerners in Government Schools, such as Katsina College might have influenced the Hausa pronunciation. Awonusi (1986: 550) asserts that differences in the English pronunciation in Nigeria are as a result of diverse linguistic and social backgrounds brought by the British who came to teach in Nigeria. He contends that Igbo English [ɛ] or [ɛ:] in words like *learn*, *modern* as opposed to Yoruba [a] in such words, is a legacy of the Scottish accent of the early teachers. Wikins (1974) observes that when a child is adequately exposed to language, he/she produces the language himself and what he produces is an imitation of what he/she has heard; and this is a process which adults often try to simulate. Learners of English in Nigeria in the contemporary times are seriously handicapped because they are constantly exposed to wrong models (Ihejirika, 2011). Modelling theory is adopted for this study because the PELTs are to serve as potential models for their students when it comes to stress assignment in compound words.

METHODOLOGY

The research methodology adopted for this study was both quantitative and qualitative. It was Corpus-based approach by collecting twenty compound words from various sources, such as written texts, websites, and educational materials. The prepared texts were administered to 100 prospective English language teachers to gather information on their knowledge and understanding of stress assignment in compound words by reading them and got them digitised in Praat at 4.1 kHz, a computerised speech analyser so as to identify prevalent stress assignment patterns. Secondly, there was a questionnaire which explored the PELTs' educational status and to understand the level of knowledge and awareness among prospective English language teachers regarding stress assignment rules in compound words. The survey was to also investigate PELTs' views on phonetics and phonology, spoken English, their level of exposure to English native speakers and teachers and other challenges that might be affecting their spoken English.

Descriptive Analysis of Prosodic Features

This section presents a comparative analysis of the three core prosodic features of stress – pitch, intensity, and duration by computing their respective ratios across two distinct groups: a control group (native speaker) and a consolidated participant group (Prospective English Language Teachers in Universities in South-Western States of Nigeria – PELTs). Each prosodic metric is visualised as mean ± 95% confidence interval (CI) to evaluate group-level trends and infer variability and prominence in prosodic realisation. This descriptive analysis provides evidence of prosodic deviation in compound nouns pronunciation between control and speaker

group. The triadic lens of pitch, intensity, and duration not only quantify stress realisation but also uncover possible cue trade-offs in speech production.

Pitch as a Feature of Stress Assignment in Compound Words

This sub-section examines the pitch ratio analysis based on the Control's and the 100 PELTs' renditions of 20 compound nouns in different utterances.

Pitch Ratio Analysis

The pitch ratio (first syllable pitch / second syllable pitch) reflects the relative prominence through pitch modulation assigned to one syllable of the compound noun as against the other. Figure 1 reveals a clear and substantial difference in pitch ratio between the two groups. The control group exhibited a markedly higher average pitch ratio (M = 1.71) compared to the PELTs group (M = 1.07). The 95% CI bars do not overlap, indicating a statistically meaningful separation. This result strongly suggests that the control group applies significantly more pitch prominence to the stressed syllable of compound nouns, consistent with native-like prosodic marking. In contrast, the PELTs group appears to underutilise pitch as a primary cue for stress realisation, potentially reflecting L1 transfer or reduced stress as a prosodic sensitivity.
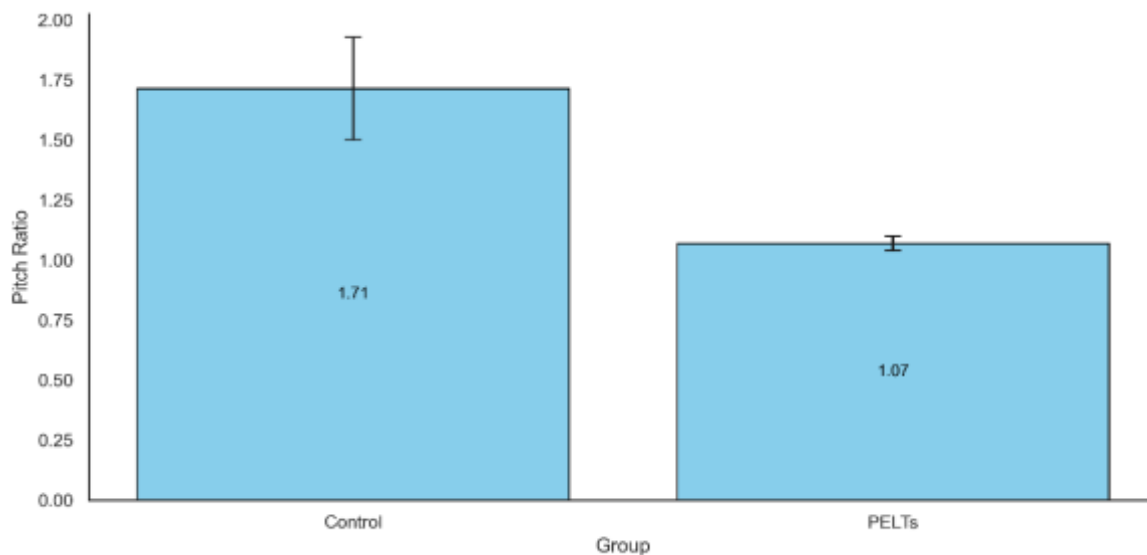

Figure 1: Pitch Ratio Mean ± 95% CI by Groups

Intensity Ratio Analysis

Intensity ratio compares the loudness prominence between the first and second elements of the compound nouns. In contrast, Figure 2 shows that while the control group had a higher mean intensity ratio (M = 1.50) than the PELTs group (M = 1.05), the error bar for the control group is notably wide, indicating high variability in intensity use. The overlapping confidence intervals between the two groups suggest that this difference is not statistically significant. Thus, although

intensity may play a role in stress marking, it does not reliably distinguish the PELTs group from the native speaker in this sample.
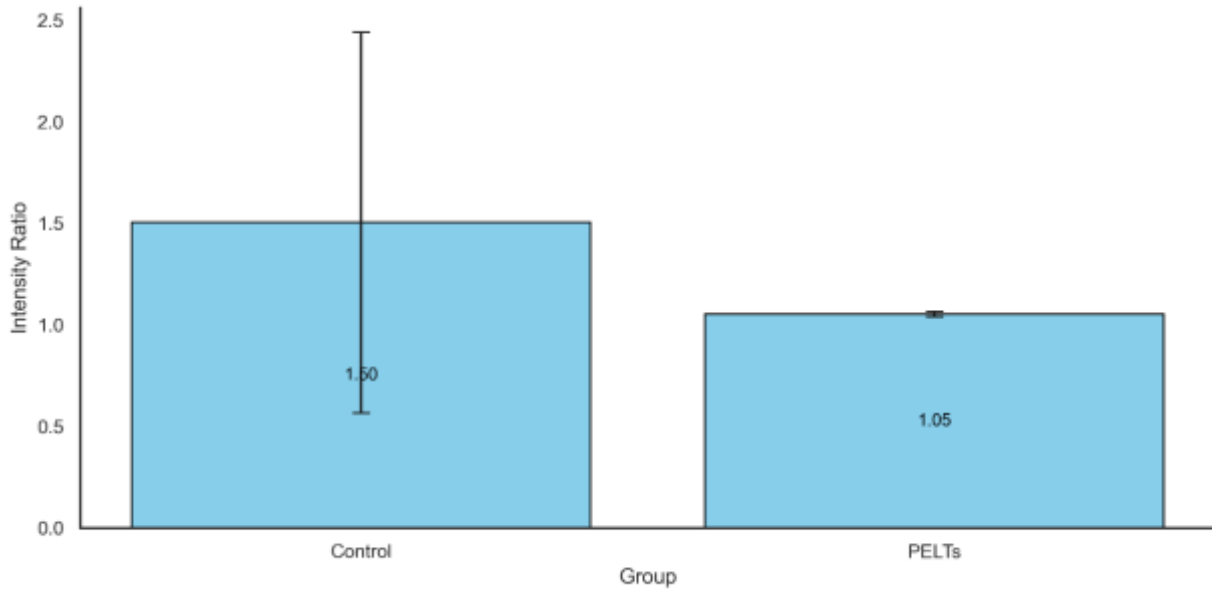

Figure 2: Intensity Ratio Mean ± 95% CI by Groups

Duration Ratio Analysis

Duration ratio captures temporal elongation between the two elements of the compound nouns. Figure 3 indicates that both groups demonstrated virtually identical average duration ratios (M = 0.84), with overlapping confidence intervals. This finding confirms the absence of any systematic group-level differences in temporal cue usage for stress realisation. Duration, in this context, appears to be a stable but non-discriminative cue between the two groups.
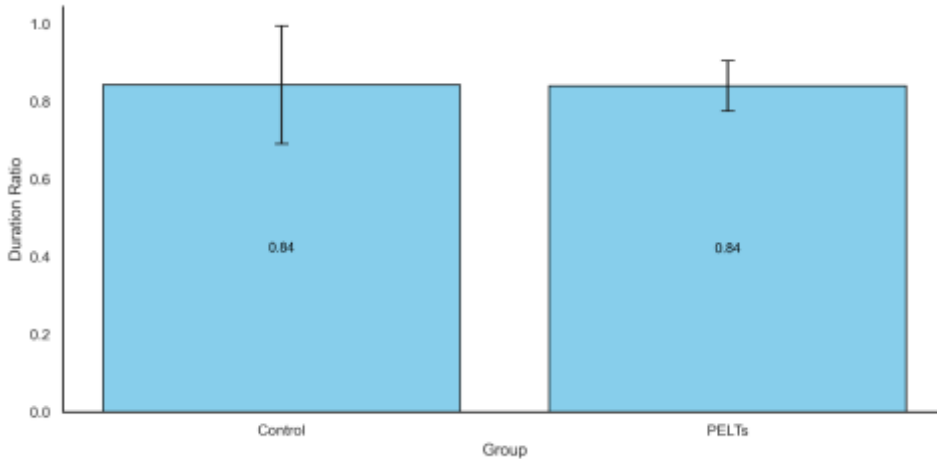
Figure 3: Duration Ratio Mean ± 95% CI by Groups

Collectively, the pitch, intensity and duration which are dominant features of stress reveal a multidimensional attenuation in stress marking among the PELTs participants relative to the control group. Of the three cues analysed, pitch emerges as the most robust and discriminatory indicator of native-like prosody, clearly separating the control group from the prospective English language teachers in universities in the south-west of Nigeria. Intensity, while exhibiting some divergence, is characterized by substantial within-group variability, particularly in the control's renditions; thereby limiting its diagnostic utility. Duration appears largely consistent across the 100 participants, suggesting limited functional relevance in this context. These patterns underscore the challenges non-native or less-proficient speakers face in producing canonical prosodic cues, with broader implications for speech intelligibility, listener perception, and second language acquisition strategies.

DISCUSSION OF FINDINGS

Inferential Cues of English Stress Analysis

Cues of English stress such as pitch, intensity, and duration play a critical role in the perception and production of linguistic stress, particularly in compound nouns. In English, stress is typically realised by emphasising the first syllable of a compound word (e.g., *"LAPtop"*), often through variations in pitch, loudness, and temporal duration. The ability to appropriately modulate these cues is closely tied to a speaker's phonological competence, language exposure, and fluency. Consequently, examining how these cues are manifested by different speaker groups offers valuable insights into speech production strategies, second language acquisition processes, and potential transfer effects from a speaker's first language (L1).

To quantitatively assess whether stress assignment differs between native-like and prospective English language teachers in universities in south-western Nigeria (PELTs), the present study adopts a two-group inferential approach. Specifically, the analysis contrasts a control group

(comprising native English speakers) with a consolidated PELTs group (representing all non-native participants). This binary classification enables focused statistical testing of group-level differences in pitch ratio, intensity ratio, and duration ratio, using independent samples t-tests.

This targeted approach strengthens statistical power and simplifies interpretability, making it easier to detect core divergences in prosodic realisation. Significant group differences, particularly in pitch would point to systematic deviations from canonical English stress patterns among PELTs. These findings have broader implications for pronunciation intelligibility, perceptual accuracy, and the development of targeted instructional or technological interventions. By narrowing the scope to a controlled binary comparison, this inferential analysis provides a robust empirical basis for evaluating which prosodic features most effectively distinguish native-like stress realisation, and where learner deviations are most pronounced.

Table 1: Levene's Test for Equal Variance Assumption

Feature	Levene_Stat	p-Value	Variance Equal?	Recommended Test
Pitch	54.434	0.000	No	Welch's t-test
Intensity	5.031	0.027	No	Welch's t-test
Duration	0.0001	0.994	Yes	Independent Samples t-test

Before conducting inferential comparisons between the Control and PELTs groups, Levene's Test was used to assess the assumption of equal variances for each English stress cues – pitch ratio, intensity ratio, and duration ratio, as seen in Table 1.

The test revealed a significant variance inequality for both pitch (F = 54.434, p < .001) and intensity (F = 5.031, p = .027), indicating that the assumption of homogeneity of variances is violated for these features. Consequently, the Welch's t-test, which does not assume equal variances, was deemed more appropriate for comparing these variables across groups. Meanwhile, the test for duration ratio yielded a non-significant result (F = 0.0001, p = .994), confirming that the variances between groups are statistically equivalent. Therefore, the standard independent samples t-test was retained for this variable.

Table 2: T-test analysis

Feature	t-Statistic	p-Value	Significant at α=0.05
Pitch	5.856	0.000	Yes
Intensity	0.941	0.358	No
Duration	0.033	0.974	No

Details in Table 2 presents the results to evaluate if the Control and PELTs groups differ significantly in their use of English stress cues during compound noun production, independent samples t-tests were conducted for pitch ratio, intensity ratio, and duration ratio, with test selection informed by Levene's Test for homogeneity of variances (see Table 1).

A Welch's t-test revealed a statistically significant difference in pitch ratio between the Control and PELTs groups, t(df) = 5.856, p < .001. This result confirms that the control group exhibited significantly higher pitch prominence than the PELT group during stress realisation. This aligns with the descriptive findings and supports the interpretation that pitch is a critical cue in native-like stress marking, and that PELTs tend to underutilise this cue. However, no statistically significant difference was observed for intensity ratio, t(df) = 0.941, p = .358. Despite some descriptive divergence, the variability within the groups – particularly the wider spread among control speakers may obscure any consistent group-level effects. This suggests that intensity is not a consistently distinguishing cue between native and non-native pronunciation in this context. Additionally, the standard t-test conducted for duration ratio also indicated no significant difference between the two groups, t(df) = 0.033, p = .974. This result reinforces earlier descriptive insights that duration is relatively stable and does not contribute meaningfully to distinguishing prosodic patterns between native and learner speech in compound nouns.

These findings underscore pitch as the only stress cue with a statistically robust difference between control and PELTs groups. In contrast, intensity and duration appear insufficiently differentiated to support group-level discrimination. This result reinforces the dominance of pitch in lexical stress realisation and highlights it as a focal point for prosodic training in second language acquisition contexts.

To enable meaningful comparison across the prosodic features which inherently have different measurement scales, log transformation was applied to the ratio values of pitch, intensity, and duration. This approach did not only normalises the distribution but also enhances interpretability by expressing relative deviations from a neutral ratio of 1.0 (i.e., log(1) = 0). Therefore, positive values indicate emphasis on the first syllable – as expected in canonical English compound stress, while negative values suggest deviation from this norm.
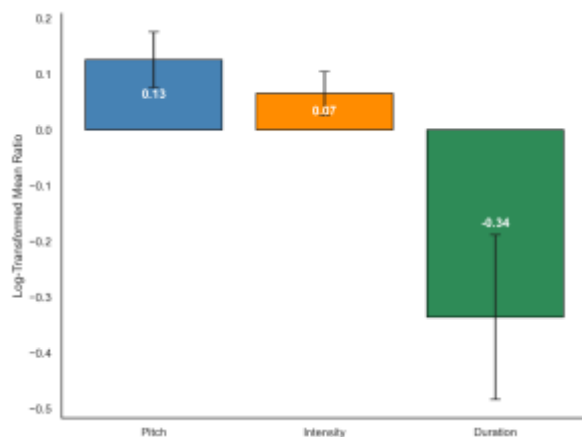

Figure 4: Overall comparison of PELTs' performance in English stress cues **in compound nouns**

Details in Figure 4 reveals that pitch yielded the highest log-transformed mean (Log Mean ≈ 0.13), indicating that participants in the PELTs group systematically raised the pitch on the first syllable of compound nouns. This trend suggests that pitch remains the most consistently employed cue for lexical stress among the PELTs group, aligning at least partially with the native-like prosodic patterns. The relatively narrow confidence interval further underscores the stability and reliability of pitch modulation across the PELTs. While also positive, the mean log-transformed intensity ratio (Log Mean ≈ 0.07) is noticeably lower than that of pitch. This suggests that intensity was used to mark stress to a lesser extent, and with greater variability. Given the auditory salience of loudness, its marginal role here may indicate either limited control over vocal effort or strategic de-prioritisation in favour of pitch. The moderate error margin supports the interpretation that intensity is an inconsistently applied cue among this PELTs group.

In contrast, the duration ratio exhibited a negative log-transformed mean (Log Mean ≈ -0.34), implying that, on average, the second syllable was either elongated or the first was shortened. Moreover, the broader confidence interval denotes substantial variability, pointing to a lack of systematic duration-based stress marking. This pattern suggests that temporal modulation is either underdeveloped or subject to L1 interference, consistent with findings in second language acquisition research where duration is often the least internalised prosodic cue

PELTs' regular patterns of the Metrical grids for compound nouns

These metrical grids are based on the observable pitch contours of the PELTs' productions:

```
CONTROL                           PELTs
DUSTpan                           DUSTPAN
  x                               *x       x
   x    x                         x       x


AIRport                           AIRPORT
  x                                *x        x
   x   x                            x        x


LAPtop                            LAPTOP
 x                                *x       x
 x    x                            x      x


 CLASSroom                        CLASSROOM
x                                 *x        x
 x        x                        x        x
```

In the grid for compound nouns, it is observed that the control assigned stress to only the first syllable. This shows that it is the first syllable that takes the higher prominence. Conversely, PELTs

gave equal prominence to both syllables in most of the compound nouns based on the observable pitch contours.

| Control		PELTs	
down	load	down	load
x		*x	x
x	x	x	x

*Unresolved clashes

In the grid for compound nouns shown above, the syllables of the first nouns had the higher grids for the control's productions. This implies that the syllables of the first nouns are the more prominent; while PELTs gave equal prominence to both syllables in the compound nouns.
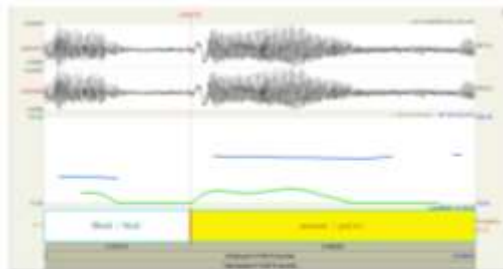
Acoustic Analysis

Dominant Patterns of PELTs' stress contours in compound nouns
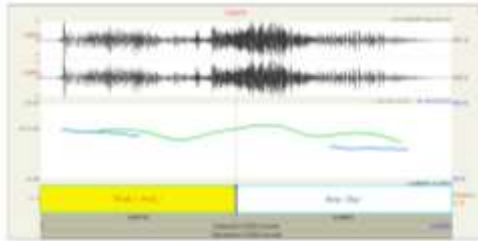**Control**   **PELTs**
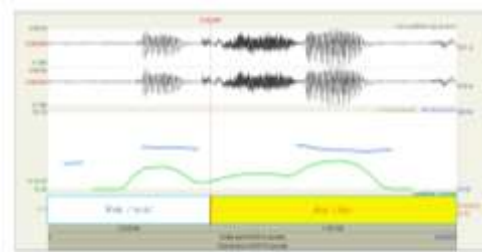
Blood pressure
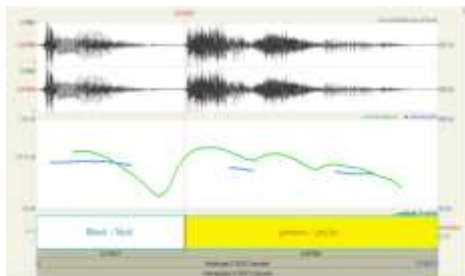
Pitch
Blood: 210.5 Hz
Pressure: 157.1 Hz
Intensity
Blood: 78.9 dB
Pressure: 77.57 dB
Duration
Blood: 0.467886
Pressure: 0.274427

Pitch
Blood: 114.6 Hz
Pressure: 218.1 Hz
Intensity
Blood: 50.98 dB
Pressure: 54.26 dB
Duration
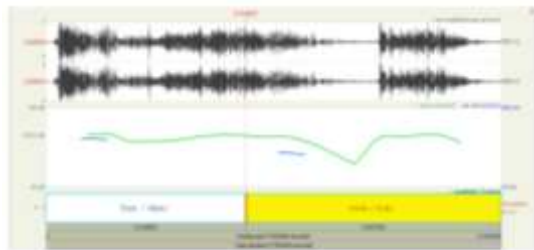Blood: 0.255755
Pressure: 0.498259

Pitch
Work: 274.6 Hz
Shop: 153.1 Hz
Intensity
Work: 82.68 dB
Shop: 81.9 dB
Duration
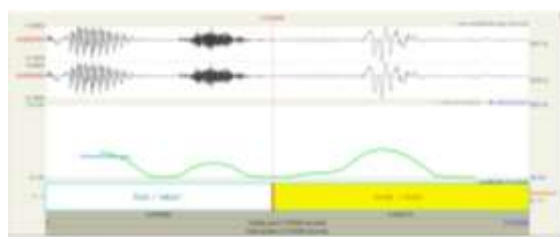Work: 0.289875
Shop: 0.262778

Pitch
Work: 194.4 Hz
Shop: 209.6 Hz
Intensity
Work: 60.01 dB
Shop: 62.9 dB
Duration
Work: 0.252348
Shop: 0.381166

Textbook   PELTs

Pitch
Text: 217.5 Hz
Book: 164.8 Hz
Intensity
Text: 81.73 dB
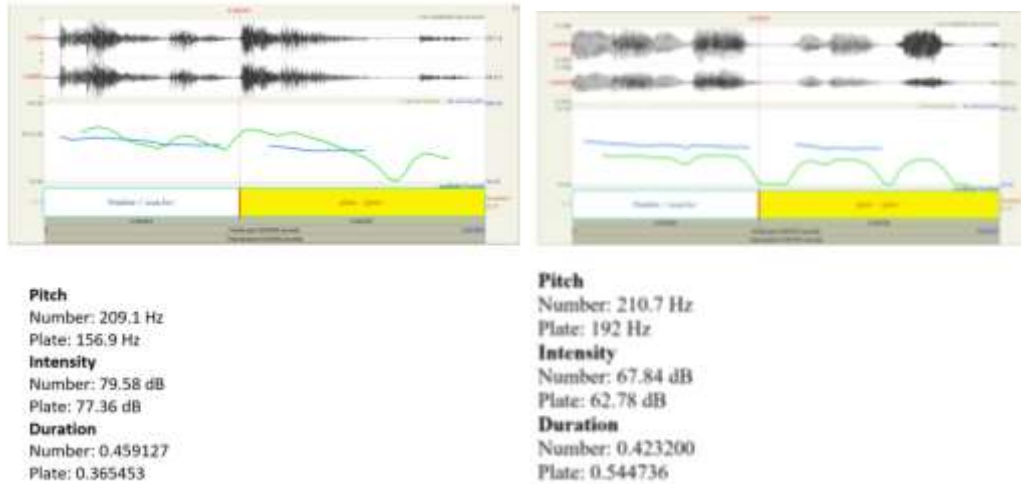Book: 80.57 dB
Duration
Text: 0.427342
Book: 0.334925

Pitch
Text: 111.6 Hz
Book: 0 Hz
Intensity
Text: 60.5 dB
Book: 62.59 dB
Duration
Text: 0.270942
Book: 0.305517

Number plate   PELTs

Pitch
Number: 209.1 Hz
Plate: 156.9 Hz
Intensity
Number: 79.58 dB
Plate: 77.36 dB
Duration
Number: 0.459127
Plate: 0.365453

Pitch
Number: 210.7 Hz
Plate: 192 Hz
Intensity
Number: 67.84 dB
Plate: 62.78 dB
Duration
Number: 0.423200
Plate: 0.544736

CONCLUSION

This study set out to investigate the stress assignment patterns in compound words among prospective English language teachers (PELTS) in universities across South-Western Nigeria. The findings revealed that most of the participants were unable to assign stress appropriately to compound words, contradicting earlier claims that Nigerian teachers of English could distinguish compound stress from that of noun phrases. Their performance reflected delayed or misplaced stress, often giving equal prominence to both elements of the compounds or stressing the second element rather than the first. This confirmed earlier descriptions of Nigerian English as characterised by "delayed primary stress."

Several factors contributed to this outcome. Many of the participants were in their first or second year of study and had not yet taken advanced courses in phonetics and phonology. Furthermore, the complexity of English stress—with its numerous shifts, rules, and exceptions—poses a challenge to non-native learners who must consciously acquire in the classroom what native speakers acquire naturally. Mother tongue interference also emerged as a significant influence, since many Nigerian languages are syllable-timed, leading to equal prominence across syllables and resulting in clashes when transferred into English. The lack of adequate facilities, exposure to native models, and the psychological discouragement learners face when mocked for attempting "foreign" pronunciation further complicate the problem.

Given these challenges, it is evident that prospective English language teachers in South-Western Nigeria cannot yet serve as reliable models of stress assignment in English compound words. This has serious implications for their role as future language instructors, since teachers are expected to model intelligible and standard pronunciation for learners. To address this gap, deliberate interventions are required. Teacher education programmes should integrate more practical and technology-driven phonology training, making use of tools such as PRAAT, speech laboratories, and online pronunciation platforms. Computer Assisted Language Learning (CALL) offers valuable opportunities for exposure to authentic English pronunciation through electronic media,

audio dictionaries, social networking platforms, and films. Additionally, regular workshops and internships involving native or near-native English speakers should be encouraged, while government and institutions must invest in providing modern facilities and training opportunities for language teachers.

A long-term solution lies in cultivating a culture of international intelligibility as the goal of English pronunciation teaching in Nigeria. Teachers must be encouraged to develop their own competence continuously through self-training, exposure to authentic speech, and the use of digital resources. This will not only enhance their personal proficiency but also enable them to serve as credible pronunciation models for future generations of learners.

Future Research

Future research should extend beyond compound stress into broader aspects of prosody in Nigerian English, such as rhythm, intonation, and connected speech, while also comparing stress performance across different regions of the country. A longitudinal study tracking the development of stress competence among PELTs as they progress in their academic training would also provide deeper insights into when and how proficiency improves. Such research will contribute to building a more comprehensive understanding of pronunciation challenges in Nigeria and guide sustainable reforms in English language teacher education.

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APPENDIX

Kindly read the following words:

1. <u>Home chores</u>
   - Say Dust pan please
   - Say Broomstick please
   - Say Bathroom please
2. <u>Education</u>
   - Say Classroom please
   - Say Blackboard please
   - Say Textbook please
   - Read Workshop please
3. <u>Kinships</u>

- Read Grandfather please
- Say Brother-in-law please

4. <u>Health</u>
   - Read Checkup please
   - Read Blood pressure please

5. <u>Transportation</u>
   - Read Airport please
   - Say Number plate please

6. <u>Technology</u>
   - Read Laptop please
   - Say Power bank please
   - Say Download please

7. <u>Administration</u>
   - Read Checklist please
   - Read Storeroom please
   - Read Payroll please
   - Say Deadline please