

Word Stress Errors in Polysyllabic Words: Effects of Syllable Number and Word Familiarity Among Thai EFL Learners

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Abstract

This research aims to investigate the effects of syllable number (2-, 3-, 4-syllable words) and word familiarity on English word stress production among Thai EFL learners, using polysyllabic words with neutral affixes that do not affect stress placement in the word list. The participants were 20 third-year English major students in Chiang Rai, Thailand, who had basic knowledge of stress production in two-syllable, three-syllable, and four-syllable words due to completed courses in Introduction to Linguistics and Phonology. They were required to be at the B1 level or lower by taking the CEFR level test from the British Council Global. The data were collected by giving participants a task to read aloud 60 polysyllabic words (30 familiar, 30 unfamiliar) in isolation to test word stress production. The results revealed that the number of syllables had a significant effect on participants' word stress placement, with more syllables resulting in more stress placement errors due to increased complexity. Moreover, word familiarity also had a significant effect on word stress placement, as the unfamiliar word set had a higher error rate than the familiar word set. Participants tended to avoid using Thai stress patterns to pronounce the given words since they probably had phonological awareness. However, participants showed a tendency to apply Thai stress patterns to unfamiliar words automatically when they did not know how to pronounce those words, following the Thai stress pattern that participants were used to.

Keywords: English word stress, EFL learners, stress misplacement, neutral affixes, word familiarity

Introduction

In the present context, English has become a global communication medium, and many countries urge people to learn the English language. Thailand has also supported students in learning the English language since grade one. However, the key findings from EF English Proficiency Index (EF Education First, 2025) reveal that speaking skills are also the weakest in most countries included Thailand, and there are only 3 countries which are Kenya, South Africa, and Zimbabwe scoring in high proficiency in speaking, and three of them have English as an official language. According to the EF English Proficiency Index (EF Education First, 2025), Thailand has the second lowest English proficiency in Asian country which is categorized as very low proficiency with 402 scores, placing 116th out of 123 countries. If diving into each four English language skills, it was found that writing is the weakest skill with 363 scores; interestingly, the speaking skill is also categorized as very low with 377, which is not very far from the lowest. One of the reason caused Thai students struggle speaking English is pronunciation, which consists of segmental (e.g., consonants and vowels) and suprasegmental (e.g., stress, intonation, rhythm, volume) features, because they are unsure how the word be pronounced, so it caused fear of mistake when speaking, It leads them to have anxiety and reduce their self-confidence (Chantaraphat & Jaturapitakkul, 2023; Nguyen et al., 2021). Moreover, it probably could affect intelligibility and accuracy, leading to heightened difficulties for those receiving the message (Khamkhien, 2010; Jaiprasong & Pongpairaj, 2020). It demonstrates that pronunciation is a factor that should be considered in speaking skills.

Soontornwipat (2023) stated that EFL learners (or learners who study English as a foreign language) who pronounce correctly tend to make themselves understood better, even though they misuse vocabulary or make grammatical mistakes. On the other hand, learners who have a good application of grammar and vocabulary, but whose pronunciation is weak tend to encounter difficulties when communicating with other non-native speakers or native English speakers.

In the same vein, Plansangket (2016) indicated that the factor that affects difficulties for L2 learners the most, including Thai learners, is stress placement. L2 learners have significant difficulties producing or perceiving the correct word stress placement because their stress placement systems are very different and less complex compared to English (Krajo, 2016). If they place the wrong stress pattern, it will alter the original meaning of the word, slow down the listener's processing time, and reduce the amount of content remembered

during the conversation (Plansangket, 2016). It can be interpreted that differences in rules between L1 and L2 make learners struggle, and mispronunciation, especially word stress placement, may lead to miscommunication or communication failure.

1. The Difference Between Thai and English Stress Placement

The differences in stress placement between English and Thai can be one of the main challenges causing difficulty for L2 or Thai learners in the pronunciation of English (Nuraini et al, 2024; Isarankura, 2018). Since stress placement in English is not fixed as in Thai, Thai learners have difficulty placing stress in the correct position and tend to apply their mother tongue when pronouncing English words, following the stress patterns of their native language (Isarankura, 2018). This often results in pronunciation errors, leading to misunderstandings and miscommunication. Therefore, the characteristics of Thai and English stress placement are as follows:

1.1 English Stress Placement

English is a stress-timed language, which refers to a language in which the time between stressed syllables tends to be equal. However, the stressed syllable has greater loudness, longer duration, rapid pitch change, higher pitch, and purer vowel quality compared to the other syllables in the word (Jaiprasong & Pongpairoj, 2020). Additionally, the meaning of a word can depend on the correctness of stress placement. In English, primary stress is not fixed to a particular syllable in a word (Piyapattaranop, 2020), which means that the primary stress can shift to different syllables rather than staying on the same one all the time. Although there are general rules for English stress placement, it is often unpredictable due to many existing exceptions (Isarankura, 2018). These exceptions may depend on the part of speech, the morphological structure, the phonological structure of each syllable, or the number of syllables in the word. Therefore, without knowledge of English stress placement, it is difficult to stress words correctly.

1.2 Thai Stress Placement

Thai is a syllable-time and a tonal language, meaning each syllable carries a lexical tone and conveys its meaning within a word and every syllable in the word are pronounced clearly (Piyapattaranop, 2020). Standard Thai has five contrastive lexical tones: mid, low, falling,

high, and rising, each of which can change the meaning of a word. Therefore, when Thai learners speak English, they might rely on tone (pitch) instead of using correct stress placement. In Thai, primary stress is fixed and always falls on the last syllable of polysyllabic words, regardless of the number of syllables in the word (Isarankura, 2018). Moreover, words with more than three syllables tend to have a double stress pattern, where the final syllable carries the primary stress and another syllable carries the secondary stress (Piyapattaranop, 2020). As a result, when Thai learners apply Thai stress patterns while pronouncing English words, it can lead to incorrect stress placement. This often causes stress to shift to the final syllable, resulting in mispronunciation and potential misunderstanding.

Previous Studies About How Thai EFL Learners Have Difficulty Pronouncing English Word Stress

Some previous studies studied how the number of syllables in the word affect participants' word stress placement. Jaiprasong and Pongpairoj (2020) examine how L1 Thai learners' English word stress recognition and production. They were focusing on two aspects:

Firstly, English words with different nonneutral suffixes which are as follows: 1.1 some suffixes affect stress shift, such as '-ic' (e.g., fan**TAS**tic), '-ity' (e.g., i**DEN**tity), and '-tion/-sion' (e.g., e**LEC**tion). 1.2 suffixes require stress on themselves, such as '-oon', '-eer', and '-ee' (e.g., guran**TEE**). Secondly, compound words which include compound nouns (e.g., **BED**room) and compound verbs (e.g., look **FOR**). The results showed that participants did better on the production task (with a correct score of 82%) than recognition (with a correct score of 78%) in two-syllable words because it is the least complex structure and participants were familiar with those word list because they already have seen it in the recognition task.

Additionally, Soontornwipat (2023) also found that two-syllable words are the most correct stress placement followed by four-syllable words, and three-syllable words are the most problematic. This result is supported by the high percentage, which are 29.52% and 35.71% of three-syllable words that were incorrectly recognized and produced, respectively. While 21.90% and 17.14% of the two-syllable words and 27.14% and 28.10% of the four-syllable words were incorrectly recognized and produced. In addition, the study revealed that three-syllable words are the most problematic for the participants because most of the three syllables did not contain suffixes, resulting in participants being unable to predict the stress rule or pattern of word stress.

Moreover, Thai stress and tone patterns influence the way Thai students place stress on English loanwords was studied. Isarankura (2018) studied how Thai EFL learners pronounce English loanwords gradually used in Thai. It aims to analyze how Thai stress and tone patterns influence the way Thai students place stress on English loanwords with polysyllabic loanwords, as perceived by a native English speaker. The study found that the students' first language (L1) had the strongest influence when they read two-syllable loanwords in sentences, leading Thai learners to encounter difficulties placing the correct word stress. Many of them know the stress rule for two syllables and correct stress patterns. However, many students pronounced the final syllable with a long vowel sound, likely due to Thai stress rules, which made the native English listener perceive the final syllable as stressed.

Furthermore, Isarankura (2018) also found that students seem to be more aware of the three-syllable words when they are pronouncing, especially those words that contain suffixes, most of which do not take stress. Moreover, four-syllable loanwords and stress placement seemed more random, but only a few students incorrectly stressed the final syllable. Students may have learned from experience that stress usually does not fall on the last syllable of loanwords with certain suffixes they recognized, so they avoided stressing the last syllable. In addition, Armijos and Guzmán (2024) reported that phonological awareness in EFL classes helps learners understand and enhance their pronunciation. When they hear the word, phonological awareness acts as a tool for learners to notice and process the word at the same time with proper pronunciation. Therefore, it might be assumed that when L2 learners who have basic knowledge or awareness of phonology have to produce word stress, they might tend to avoid using their mother language's rules because they have phonological awareness, whether it comes from the lesson, teachers, or environment in the classroom.

Based on earlier studies discussed above, the studies have shown that English language learners encounter the challenge of word stress production, especially those whose first language uses different rhythms and stress patterns than English. The results of these previous studies found that the number of syllables affects the stress placement of participants, with two-syllable words having the least errors of misplacement of English word stress, followed by four-syllable words, and lastly, three-syllable words being the most problematic. They pointed out the reason behind it might be from the vocabulary that they used containing non-neutral affixes, which are affixes that affect or shift stress placement. They indicated that these affixes can be hints of stress placement for participants and affect the result of participants'

stress placement. These raise the questions 1) if in this study polysyllabic words with only neutral affixes, which are affixes (prefixes and suffixes) that do not affect stress shift placement, are used, will the result be the same as the previous studies, with three-syllable words being the most problematic? And 2) If the word list that contains polysyllabic words with neutral affixes is divided according to word familiarity based on CEFR levels, how will the result affect participants' stress placement?

Therefore, the present study tries to examine the effect of the number of syllables in polysyllabic words—specifically two-syllable, three-syllable, and four-syllable words—including those with stress-neutral prefixes and suffixes—on English major students' ability to correctly produce word stress, and whether these variations lead to different levels of accuracy in their stress production. Moreover, this study tries to explore how prior exposure to or familiarity with vocabulary influences English major students' ability to accurately stress words.

The Hypotheses of the Current Study

1. If learners are given polysyllabic words, including those with stress-neutral prefixes and suffixes, with an increasing number of syllables (two, three, and four syllables), their accuracy in producing correct word stress is expected to decrease.

2. The less familiar learners are with a vocabulary item, the more likely they are to misplace or incorrectly apply word stress. In contrast, learners are more likely to correctly stress words they are familiar with, possibly due to prior exposure and experience in hearing the correct stress patterns.

Methodology

This section contains participants, research instruments, data collection, and data analysis.

1. Participants

There were 20 third-year undergraduate English major students in Chiang Rai, Thailand. The participants had completed courses in Introduction to Linguistics and Phonology, which provided them with basic knowledge of stress production in two-syllable, three-syllable, and four-syllable words. Additionally, the participants were required to have an English proficiency

level of B1 according to the CEFR level test by the British Council Global (Free English Online Level Test, 2025). This level was chosen based on the second research question of the study: How does familiarity with vocabulary affect learners' ability to accurately stress words? Since B1-level learners still encounter many vocabulary items they are unfamiliar with, their lack of knowledge in this area could influence their ability to apply correct word stress. This aligns with one of the study's hypotheses: The less familiar learners are with a vocabulary item, the more likely they are to misplace or incorrectly apply word stress. In contrast, familiarity with a word increases the likelihood of accurate stress placement due to prior exposure and experience in hearing correct stress patterns. Therefore, B1-level participants were deemed suitable for this study, as they are familiar with A1-B1 vocabulary but still lack exposure to B2-C2 words, making them an appropriate group for examining the influence of vocabulary familiarity on word stress accuracy.

2. Instruments

Two research instruments were used in this study: the Free English Online CEFR Level Test from British Council Global (Free English Online Level Test, 2025) (Task 1) and Reading English Word Stress in Isolation (Task 2). The first instrument ensured that only B1-level participants were included by assessing their CEFR proficiency. The test consisted of 30 multiple-choice questions, each with two components: a level-check question and a self-assessment, where participants indicated their confidence level in their answer by selecting “certain,” “fairly sure,” or “not sure.” Participants were required to complete both parts before proceeding to the next question to enhance the validity of the test results.

The second instrument involved two sets of vocabulary words: a familiar word set (A1-B1 level) and an unfamiliar word set (B2-C2 level). Each set contained 30 simple polysyllabic words, totaling 60 words, selected from the Oxford 3000 and 5000 (Oxford University Press, n.d.), which indicate the CEFR level of each word. The criteria for word selection were as follows:

- a. Using words are polysyllabic words which are words that contain more than one syllable
- b. Using a group of affixes—prefixes and suffixes that do not affect stress production in polysyllabic words—is allowed, which are neutral-stressed prefixes and neutral-stressed suffixes, respectively, to select words for this study, as shown in Table 1.

Table 1*Definitions of the Types of Prefixes and Suffixes Included in This Study*

No.	Stress pattern	Definition	Affixes	Example words
1	Neutral stressed prefixes	Monosyllabic prefixes that do not affect stress shift in the word	re-, in-, dis-, ac-, ir-, mis-, un-, co-, de-, etc.	A. NOR mal • /'nɔ:.məɫ/ <u>Ab</u> NORmal • /æb' nɔ:.məɫ/
2	Neutral stressed suffixes	Suffixes that add to the based word will not shift stress placement in the word and main stress still falls on the main stressed position of the based word	-y, -age, -able, -ess, -less, -hood, -ful, -ly, -al, etc.	B. a WARE • /ə'weər/ aWARE <u>ness</u> • /ə'weə.nəs/

However, other types of prefixes and suffixes, as shown in Table 2, were not included in this study because they carry stress patterns that could serve as cues for participants. To prevent participants from relying on these affixes as hints for stress placement, only the affixes listed in Table 1 were used in word selection to ensure that the results reflected the participants' actual ability.

Table 2

Types and Definitions of Prefixes and Suffixes Excluded from the Study

Stress pattern	Definition	Explanation	Example words
Non-neutral prefixes	Disyllabic prefixes that may cause a slight shift in stress depending on the part of speech of the word they precede.	1. When <i>preceding a monosyllabic verb root</i> , the primary stress falls on the root word , while the secondary stress is placed on the first syllable of the prefix (e.g., <i>contra-</i> , <i>inter-</i> , etc.).	C. contra VENE ● /,kɒn.trəˈviːn/
		2. When <i>preceding a monosyllabic noun root</i> , the primary stress falls on the first syllable of the prefix (e.g., <i>inter-</i> , <i>super-</i> , etc.).	D. SU perman ● /ˈsuː.pə.mæn/
		3. When <i>preceding a disyllabic or polysyllabic noun or verb</i> , the main stress usually falls on the root word , while the secondary stress is placed on the first syllable of the prefix (e.g., <i>poly-</i> , <i>para-</i> , <i>hyper-</i> , etc.).	E. poly TECHnics ● /,pɒl.iˈtek.nɪk/

Table 2

Types and Definitions of Prefixes and Suffixes Excluded from the Study (continued)

Stress pattern	Definition	Explanation	Example words
Non-neutral suffixes	Suffixes that may shift stress placement to a different position when added to a word can be categorized into three groups:	1. Ultimate stressing refers to the placement of primary stress on the final syllable of a suffix, where the suffix itself carries the stress (e.g., -aire, -ee, -eer, -ette, -ese, -esque, -oon, -ique).	F. volun TEER ● /ˌvɒl.ənˈtɪər/ G. question NAIRE ● /ˌkwes.tʃəˈneər/ H. nomi NEE ● /ˌnɒm.iˈniː/
		2. Penultimate stressing refers to the shift of primary stress to the second-to-last syllable when these suffixes are added (e.g., -ic, -sion, -tion, -ion, -ial, -ian, -ual, -ish, -ible, etc.).	I. pho NETics ● /fəˈnet.ɪks/ J. re VI sion ● /rɪˈvɪʒ.ən/ K. par T icipation ● /pɑːˈtɪs.i.peɪt/
		3. Antepenultimate stressing refers to the shift of primary stress to the third-to-last syllable when these suffixes are added (e.g., -ate, -cy, -ical, -ify, -itive, -ity, -ize, -phy, -logy, etc.).	L. o R iginate ● /əˈrɪdʒ.ən.eɪt/ M. metho D ology ● /ˌmeθ.əˈdɒl.ə.dʒi/ N. SIM plify ● /ˈsɪm.plɪ.faɪ/

- c. Selecting the words with two, three, and four syllables ensured that stress patterns were evenly distributed. Each group contained 10 words with varying stress placements. For example, in three-syllable words, some were stressed on the first syllable, like “**MED**icine”, some on the second, like “a**BAN**don”, and some on the third, like “recom**MEND**”. This balanced distribution was applied to all word groups to cover different stress patterns.

According to the criteria for word selection, the familiar word set (A1–B1 level) and the unfamiliar word set (B2–C2 level), which include two-syllable, three-syllable, and four-syllable words, respectively, were displayed in Table 3, in which bold indicates the syllable that refers to the stressed syllable.

Table 3

List of Familiar Word Set 1 (A1–B1 Level) and Unfamiliar Word Set 2 (B2–C2 Level) of Two-Syllable Words, Three-Syllable Words, and Four-Syllable Words

Set 1		Set 2	
1. BAR gain	16. BAT tle	1. VIR tue	16. AR bitrariness
2. con TIn ue	17. COM fortable	2. a BAN don	17. entrepre NEUR
3. MED icine	18. recom MEND	3. COUR tesy	18. SUB urb
4. indi RECT	19. ac COM pany	4. unfa MIL iar	19. misdiag NOSE
5. AL bum	20. CAR pet	5. bi ZARRE	20. ex PRESS
6. en JOY able	21. avo CA do	6. HAB itat	21. en THU siaist
7. HUR ricane	22. LUX ury	7. STER eotype	22. CAN vas
8. cam PAIGN	23. con TROL	8. ro BUST	23. SAC rifice
9. CAT erpillar	24. ar R ival	9. MAR athon	24. ir REG ular
10. ar REST	25. maca RON i	10. pro H ibit	25. ar RAY
11. disad VAN tage	26. ac CEP table	11. BAL lot	26. appa RA tus
12. INTER esting	27. suc CESS ful	12. rear RANGE	27. SLO gan
13. maga ZINE	28. ig NORE	13. GE nocide	28. dis HON estly
14. des PITE	29. cur RIC ulum	14. a LEGE	29. un PLEA sant
15. de L ivery	30. CER tain	15. propa GAN da	30. RES idue

In addition, the list of words in Table 3 was utilized as the research instrument for Task 2, given to participants to complete the task. However, the bold letters were removed from the list.

3. Data Collection

The data collection process was divided into two parts. The first part involved administering the Free English Online CEFR Level Test from the British Council Global (Task 1) to select only B1-level participants. Afterward, participants were asked to complete Task 2, which involved reading English word stress in isolation. They were instructed to read the words from Table 3 and to pronounce each word clearly at their natural speaking speed. If they were

unsure about the pronunciation, they were allowed to repeat the word until they were satisfied with it. With this approach, it seemed possible for participants to pronounce the words most correctly within their ability and awareness. Therefore, the results would come from the intention of the participants, not accidental pronunciation.

Before recording, participants were asked for permission to record their voices and were not informed about the specific focus of the test.

4. Data Analysis

The analysis of participants' word pronunciation was conducted using the PRAAT program. As shown in Figure 1, this program displays pitch (blue line), intensity (green line), and duration (time), which help identify stress placement in participants' speech. To identify the syllable stress in a word, First, the recording file was uploaded to the program, and after that, each word was separated into syllables. The focus of this analysis was on the pitch (blue line), which is one of the key features of word stress. If the syllable with the highest point on the blue line (the highest pitch) was identified, it was marked as the primary stress syllable.

Figure 1

Function of the PRAAT Program Showing Pitch (Blue Line), Intensity (Green Line), and the Duration of the Word Pronunciation (Red Mark)



To analyze the data and achieve the research objective, the collected data were uploaded to PRAAT to identify stress placement in each token. A total of 1,200 tokens (derived from 20 participants, each pronouncing 60 words) were examined to analyze: 1) the number of syllables and 2) word familiarity, to determine whether both factors affect participants' word stress performance. The results were then recorded in a Google Sheet, which displays the familiar and unfamiliar word sets separately, categorizing words into two-syllable, three-syllable, and four-syllable groups. To use the PRAAT program to analyze how participants place the stress in the assigned word, the researcher could easily and clearly notice whether a syllable was stressed by noticing the prominent highest pitch (blue line). Therefore, the result was accurate and obviously noticeable.

Participants' pronunciation errors were marked using specific symbols, adapted from Tangtorrith and Pongpairoj (2022). Symbol 1 refers to the word that was pronounced with correct stress placement, and symbol 2 refers to the word that was pronounced with incorrect stress placement.

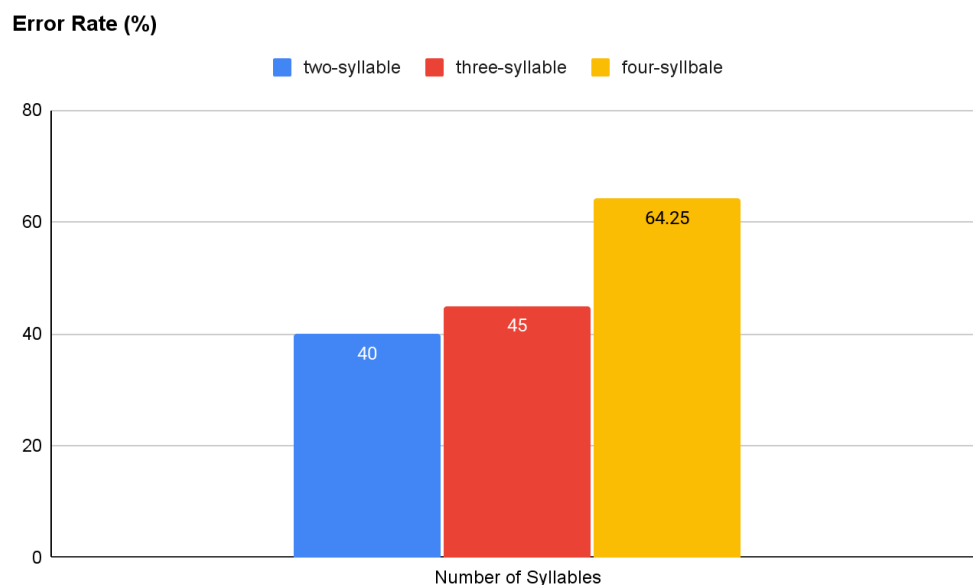
Result and Discussion

1. The Number of the Syllable

The number of syllables is one of the factors considered when placing the main stress in a word (Krajo, 2016). In this study, the number of syllables is significant in demonstrating how participants correctly place the main stress, tested through pronounced vocabulary in two-syllable, three-syllable, and four-syllable words in both familiar and unfamiliar vocabulary sets. Figure 2 shows the percentages of error rate of participants' stress placement across both word sets: Familiar and Unfamiliar word sets.

Figure 2

Error Rates in Stress Placement Increase as Word Length Increases, Based on the Number of Syllable



From Figure 2, The error in word stress tends to increase as the number of syllables increases, while conversely, the correctly stressed placement decreases with the increasing number of syllables. It can be seen that four-syllable words are the most problematic for participants in producing correct stress placement, with an incorrect stress placement score of 64.25% (257 out of 400) followed by three-syllable words score of 45% (180 out of 400) and two-syllable word score of 40% (160 out of 400).

This might be a result of the fact that the complexity of the pattern is directly proportional to the number of syllables in the word. The reason behind the result that two-syllable has the most correctly pronounce could be examined according to English stress rules,

the probability of producing correct stress placement for two-syllable words is up to 50%, as there are only two possible stress patterns: stressing the first syllable (Oo) or stressing the final syllable (oO). However, for three- and four-syllable words, the probability of correct pronunciation decreases in descending order.

As same as Soontornwipat (2023) found the result that the number of syllables that had more complexity would affect participants' word stress placement, she found that two-syllable words were stressed most accurately, followed by four-syllable words, and finally three-syllable words. The reason four-syllable words are stressed more accurately than three-syllable words is that the suffixes in four-syllable words affect stress placement, which helps predict where the stress should fall according to English stress rules. However, in the current study, the selected words were polysyllabic words consisting of prefixes and suffixes that do not affect stress placement, which are stated in Table 1. As a result, the highest stress placement errors occurred in the four-syllable words, rather than in the three-syllable words. Moreover, Khamkhien (2010) found that Thai learners had the most difficulty pronouncing five-syllable words, suggesting that less frequent exposure and greater cognitive load associated with longer words can hinder accurate stress placement. Isarankura (2018) also observed that students placed stress more randomly on four-syllable loanwords, indicating a possible lack of familiarity with the stress patterns of longer words.

At the same time, the high error rate of two- and three-syllable words is quite interesting. Although their error rates are lower than those of four-syllable words, they still reach 40% and 45%, respectively. According to data collection, the researcher found that participants performed well when pronouncing words with first-syllable stress. For example, they pronounced the words “album (65%)”, “hurricane (70%)”, “slogan (80%)”, “virtue (70%)”, “residue (80%)”, and “habitat (85%)” correctly. However, the researcher also found that the participants showed a tendency to place stress on the first syllable in words that do not require stress there, which is stress misplacement. For example, the word “campaign,” which should be pronounced as “camPAIGN”; instead, 12 out of 20 participants, accounting for 60%, tended to pronounce it as “CAMpaigh” on the first syllable. Likewise, the following words: “continue,” which should be pronounced as “conTinue”; instead, 14 out of 20 participants, accounting for 70%, tended to pronounce it as “CONTinue,” or the words “magazine (60%)” and “disadvantage (60%)” tended to be pronounced with stress on the first syllable no matter how many syllables there were or which part of speech they belonged to. These results would

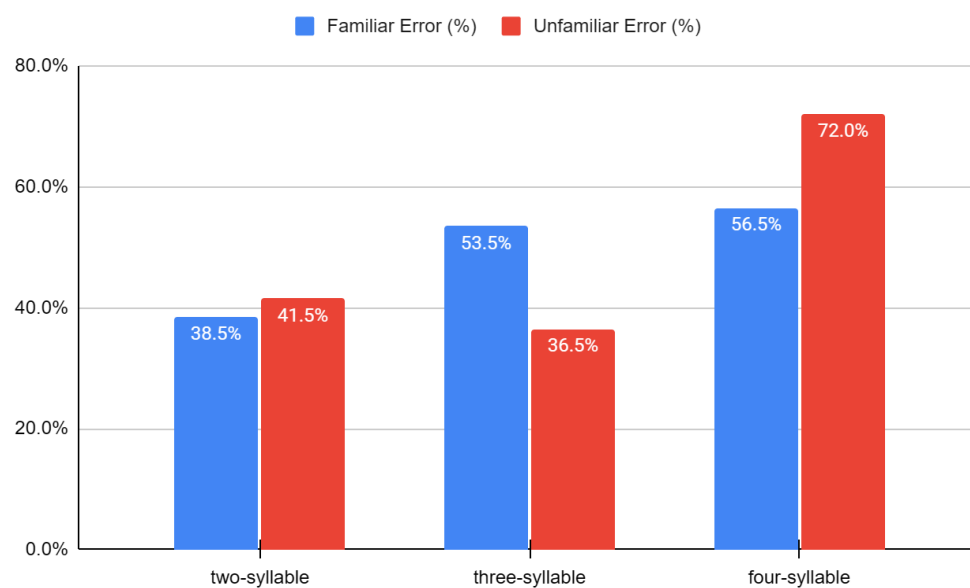
seem to show that avoiding negative transfers has occurred. According to Armijos and Guzmán (2024), learners who learn in EFL classes will gain phonological awareness, which means having the ability to identify the general sound structure of the target language. In this case, participants appear to show this awareness even though the results still went wrong; however, they didn't rely on their mother language rules anymore.

2. Word Familiarity

The vocabulary selected for Task 2 was chosen based on its familiarity, categorized into familiar words (A1–B1) and unfamiliar words (C1–C2), according to the CEFR levels of the participants, with most being at the B1 level. This was done to test whether exposure to the vocabulary affects participants' ability to accurately place stress on words. For this reason, Figure 3 shows the error rate of stress placement for both the familiar word set and the unfamiliar word set in each syllable group (2-, 3-, 4-syllable).

Figure 3

Comparison of Stress Placement Errors by Word Familiarity in Each Syllable Count

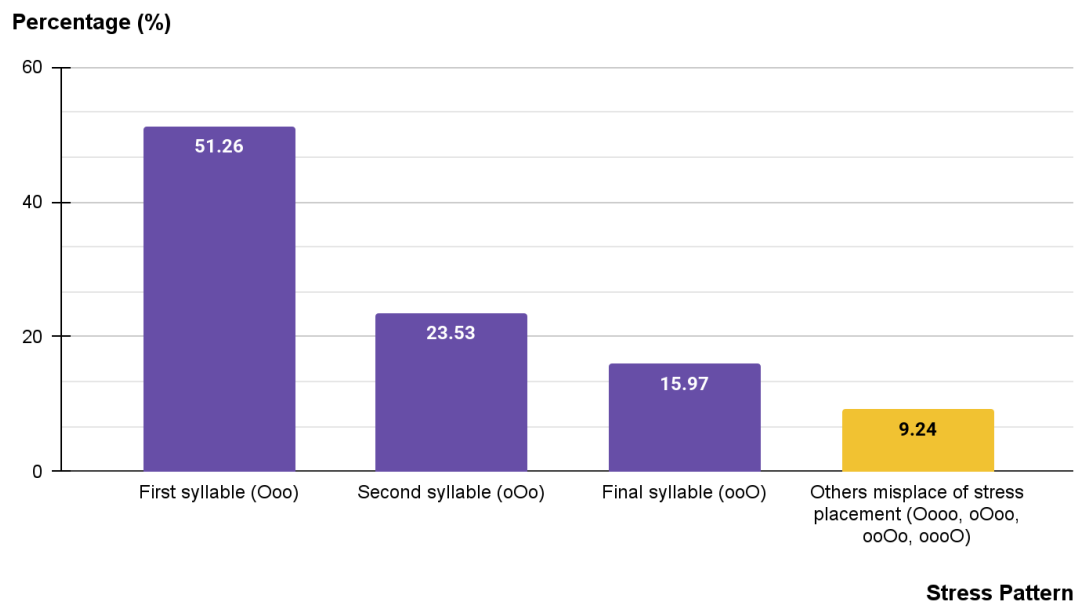


From Figure 3, it can be observed that the unfamiliar word set shows a higher overall error rate in stress placement compared to the familiar word set. This trend is evident in the two-syllable words (41.5% vs. 38.5%) and especially in the four-syllable words (72% vs. 56.5%), where the difference is more pronounced. In contrast, for three-syllable words, the familiar word set has a higher error rate than the unfamiliar word set.

This result aligns with the hypothesis that the less familiar learners are with a vocabulary item, the more likely they are to misplace or incorrectly apply word stress. Additionally, this finding agrees with Khamkhien (2010), who stated that exposure to the English language plays a crucial role in how learners perceive and produce English word stress. Therefore, it can be interpreted that exposure has a significant effect on learners' understanding of English stress patterns. This means that words participants have already known and heard—typically those with CEFR levels like their own proficiency—are more likely to be pronounced correctly.

However, three-syllable words show a higher error rate in the familiar word set than in the unfamiliar set. This might be because participants rely on patterns they are used to in familiar words rather than following the correct English word stress rules. Since the participants are English major students, even those with lower proficiency levels may be aware that they should not place stress on the final syllable in familiar words, since they might be aware of the difference between English and Thai stress rules. Since there are many words on the three-syllable word list that have stress on the last or other positions, and a few of them must be stressed on the first syllable, which is the type of stress pattern participants had performed well. Therefore, trying to avoid placing the stress syllable in this case makes the result show the error in the highest percentage.

This awareness may lead them to apply incorrect but familiar stress patterns, rather than the correct pronunciation, as evidenced in Figure 4.

Figure 4*Distribution of Stress Misplacement Patterns in Three-Syllable Words in Familiar Word Set*

From Figure 4, it can be observed that the first syllable (Ooo) at 51.26% and the second syllable (oOo) at 23.53% tend to be stressed more frequently than the final syllable at 15.97%, even when participants were unsure of the correct stress placement for the words in the list. However, they appeared to be aware that English word stress typically differs from Thai, where primary stress is fixed and consistently placed on the final syllable of polysyllabic words, regardless of the number of syllables (Isarankura, 2018). This result is evident in the familiar word set, where participants may have recognized the word but were uncertain about its correct stress pattern. In the same vein, participants mispronounced words instead of three-syllable to four-syllable, as shown in the graph with 9.24%, even though it is the familiar word set. However, it might be assumed that participants are used to the word in reading and writing, but not in speaking or pronouncing. For example, the word “interesting” has an error rate higher than 85%, which is 17 out of 20 who had stress misplacement on this word.

Conclusion

This study examines the effect of syllable number and word familiarity on English major students' word stress production. The results showed that as the number of syllables increased, stress placement errors also increased. Two-syllable words had the lowest error rate (40%), while four-syllable words had the highest error rate (64.25%). This suggests that

longer words without clear stress pattern hints, which have non-neutral affixes, are more difficult for learners. Interestingly, word familiarity also had a significant effect on participants' stress placement. The results showed that the unfamiliar word set had a higher stress error rate than the familiar word set, which is evident in the two-syllable and four-syllable groups, in which the less familiar with the word, the more mistakes in stress placement. However, in three-syllable words, the familiar word set had the most stress placement errors. The reason behind this might be assumed to be that participants are aware that Thai and English stress placement rules are different. So, they tried to avoid relying on Thai rules, which mainly place stress on the last syllable. However, in the unfamiliar word set, they tend to place the primary stress on the final syllable because they do not know the word and are unfamiliar with it, so they apply Thai stress, placing the primary stress on the last syllable automatically. Therefore, these findings highlight the combined influence of syllable number, word familiarity, and first-language transfer on English word stress production among Thai EFL learners.

Recommendations

Future research could consider presenting the vocabulary in a conversation format to capture more natural stress production. Additionally, conducting interviews after the stress production task could help understand the reasoning behind participants' stress placement choices. Furthermore, it would be beneficial to include participants with a higher level of English proficiency to examine whether the results related to the second hypothesis would differ, providing further insights into stress production accuracy at more advanced levels.

References

- Armijos, K., & Guzmán, P. (2024). *Metalinguistic awareness in EFL classrooms* [Undergraduate thesis, Universidad de Cuenca]. Universidad de Cuenca Institutional Repository.
<https://dspace.ucuenca.edu.ec/handle/123456789/45225>
- British Council. (2025, March 13). *Free English online level test*.
<https://englishonline.britishcouncil.org/free-english-level-test-cefr-2/>
- Chantaraphat, Y., & Jaturapitakkul, N. (2023). Use of peer tutoring in improving the English speaking ability of Thai undergraduate students. *rEFLections*, 30(3), 826–849.
<https://doi.org/10.61508/refl.v30i3.268771>

- Isarankura, S. (2018). The effects of stress and tones in Thai on the pronunciation of English polysyllabic loanwords among Thai EFL students. *LEARN Journal: Language Education and Acquisition Research Network*, 11(2), 66–83. <https://so04.tci-thaijo.org/index.php/LEARN/article/view/161528>
- Jaiprasong, S., & Pongpairroj, N. (2020). L2 production of English word stress by L1 Thai learners. *LEARN Journal: Language Education and Acquisition Research Network*, 13(2), 142–157. <https://so04.tci-thaijo.org/index.php/LEARN/article/view/243699>
- Karjo, C. H. (2016). Accounting for L2 learners’ errors in word stress placement. *Indonesian Journal of Applied Linguistics*, 5(2), 199–208. <https://ejournal.upi.edu/index.php/IJAL/article/view/1344/938>
- Khamkhien, A. (2010). Thai learners’ English pronunciation competence: Lesson learned from word stress assignment. *Journal of Language Teaching and Research*, 1(6), 757–764. <https://doi.org/10.4304/jltr.1.6.757-764>
- Nguyen, L., Hung, B., Duong U., & Le, T. (2021). Teachers’ and learners’ beliefs about pronunciation instruction in tertiary English as a foreign language education. *Frontiers in Psychology*, 12(1), 1–11. <https://doi.org/10.3389/fpsyg.2021.739842>
- Nuraini, L., Hastini, H., & Mertosono, S. (2024). Decoding the suprasegmental aspect: A deep dive into word stress errors in English pronunciation. *Journal of General Education and Humanities*, 3(1), 63–74. <https://doi.org/10.58421/gehu.v3i1.209>
- Oxford University Press. (n.d.). *Oxford 3000 and 5000 word lists*. Oxford Learner’s Dictionaries. <https://www.oxfordlearnersdictionaries.com/wordlists/oxford3000-5000>
- Piyapattaranop, C. (2020). *Stress patterns and metalinguistic knowledge before and after praxis intervention on the pronunciation of English derivational suffixed words by Thai learners* [Master’s thesis, Chulalongkorn University]. Chulalongkorn University Theses and Dissertations. <https://digital.car.chula.ac.th/chulaetd/435/>
- Plansangket, C. (2016). *Word stress errors of graduate students in Thailand: A study of CEIC program* [Master’s thesis, Thammasat University]. Thammasat University Digital Collections. <https://doi.org/10.14457/TU.the.2016.1272>
- Soontornpiwat, S. (2023). The recognition and production of English word stress of Thai university students. *Asia Social Issues*, 16(5), e256125. <https://doi.org/10.48048/asi.2023.256125>
- Tangtorrith, N., & Pongpairroj, N. (2022). Systematicity of L2 interlanguage of stress assignment in English compound nouns and phrasal verbs by L1 Thai learners. *LEARN Journal: Language Education and Acquisition Research Network*, 15(1), 33–63. <https://so04.tci-thaijo.org/index.php/LEARN/article/view/256713>