

The Effectiveness of Explicit and Implicit Instruction of L2 English Word Stress among L1 Thai learners

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Abstract

The study aimed to investigate the effectiveness of explicit instruction and implicit instruction concerning English word stress among L1 Thai learners. The participants were 18 intermediate Thai undergraduate students divided into two groups: “the explicit group” receiving direct instruction, and “the implicit group” receiving indirect instruction. The results suggest a trend showing the effectiveness of the explicit instruction over the implicit instruction. The results of the study provide pedagogical implications for L2 English word stress.

Key words: explicit and implicit instruction, L2 English, word stress, L1 Thai learners

1. Introduction

For second language learners of English, to successfully communicate using the target language seems not just about knowing a amount of vocabulary or rules of particular grammatical structures, but also about having a good command of pronunciation. As stated in Chung (2007: 2), “[t]o speak a foreign language, a learner needs to pay attention to correct pronunciation.” Also, Fotovatnia & Omid (2013: 769) state in their work that “pronunciation is of vital importance in effective communication.”

According to Celce-Murcia et. al. (2011: 8), moreover, the advent of Communicative Language Teaching (CLT), which sees the importance of pronunciation teaching, suggests what is called “a threshold level of pronunciation for non-native speakers of English.” That is to say, regardless of English proficiency concerning grammar and vocabulary, a non-native speaker is likely to face certain difficulties in oral communication if his or her pronunciation falls below this threshold. In other words, non-native speakers are likely to be unsuccessful in English conversations if they have not mastered English pronunciation to a particular extent.

To master English pronunciation, however, there are several areas to be concerned with. According to Pennington & Richard (1986, cited in Chung, 2007: 2), English pronunciation consists of three components, which are segmental features, voice-setting features, and prosodic features. While second language learners' competence in segmental features or individual sounds of English such as consonants and vowels is of interest and has been widely studied by a number of researchers (e.g. Saito, 2013; Sturm, 2013), prosodic features (e.g. intonation, stress, and rhythm) are not any less important.

Prosodic features of English pronunciation, especially stress patterns, are one of the crucial factors which could determine or fail a sound communication. According to Chung (2007: 2-3), "the communication between a non-native speaker and a native speaker could cause a breakdown because of the misplacement of stress." To this respect, Gumperz (1982, cited in Sardegna, 2009: 51) also states that "the wrong use of suprasegmentals not only contributes to a lack of understanding, but also to problems of miscommunication and cultural stereotyping." To be more specific, Benrabah (1997, cited in Sardegna, 2009: 51) states that "the wrong use of word stress may render non-native speakers of English unintelligible."

Since problems in English stress among non-native speakers or second language learners, as mentioned, could cause conversation breakdown, misunderstanding, and unintelligibility, for instance, a way to diminish the problem is worth addressing.

Despite the fact that "the English stress rules are too complicated and have many exceptions" (Chan & Leung, 2013: 467), studies have tried to examine the effectiveness of different approaches to teaching English stress patterns and pronunciation. For example, Chan & Leung (2013) investigated implicit learning of stress patterns among Cantonese speakers whose second language was English; Fotovatnia & Omid (2013) examined the effect of a visual medium on English word stress among Iranian students; Saito & Saito (2016) investigated the effectiveness of different types of instruction – implicit and explicit – on comprehensibility, word stress, rhythm, and intonation among Japanese learners. To the best of my knowledge, however, none has investigated the effectiveness of explicit and implicit instruction on English word stress among L1 Thai learners.

This study, therefore, aims to examine the effectiveness of explicit and implicit instruction on the pronunciation of English word stress among L1 Thai learners.

2. Research question and hypothesis

2.1 Research question

2.1.1 Which types of instruction i.e. explicit or implicit instruction works more effectively in improving L1 Thai learners' competence in English word stress?

2.2 Hypothesis

2.2.1 Explicit instruction works more effectively in improving L1 Thai learners' competence in English word stress than implicit instruction.

3. Literature review

This section is divided into three sub-sections i.e. 3.1 Explicit and implicit instruction; 3.2 Previous studies; 3.3 English word stress.

3.1 Explicit and Implicit instruction

According to Ellis & Shintani (2014: 15-16), early Second Language Acquisition research was encouraged by the wish to improve language pedagogy. Researchers believed that in order to have a better language pedagogy, they needed to be able to propose a sound approach to second language teaching, and to serve that purpose, they recognized that there was a need for empirical investigations on the effects of instruction on learning. Several types of instruction, therefore, have been developed and investigated. Explicit instruction and implicit instruction, to this respect, are also frequently under investigation (Ellis & Shintani, 2014: 15-16).

3.1.1 Explicit instruction

Explicit instruction is concerned with an explicit account of target rules of particular features under instruction. To elaborate, Ellis & Shintani (2014: 83-85) described explicit instruction as involving presentation and practice where rules of the target feature(s) are *explicitly* described or explained to students, followed by some sorts of drills or exercises. The presentation or instruction can be either deductive – where an explicit account of the target features is provided first - or inductive, where examples concerning the target features are given as a start. On top of that, Ellis et al. (2009: 17), state that learners (studying through explicit instruction) “are encouraged to develop metalinguistic awareness of the rule”, meaning that the instruction uses metalinguistic terminology (i.e. rule explanation), and the students are aware of what they are learning.

According to Ellis & Shintani (2014: 83), and Hulstijn (2002, cited in Chung, 2007: 10), therefore, explicit instruction results in intentional learning or explicit learning, which “takes place consciously, either in the form of a search for underlying structures, or in the form of rule assimilation following explicit instruction” (Hulstijn, 2002, cited in Chung, 2007: 10). In

other words, explicit learning is a conscious process in which the learners are aware of what is being taught.

According to Krashen (2009: 10), in addition, the term “explicit learning” is a synonym of the term “learning”, which is used to refer to “conscious knowledge of a second language, knowing the rules, being aware of them, and being able to talk about them.” This learning, consequently, results in explicit knowledge, which is also conscious and can be verbalized (Hulstijn, 2005, cited in Chan & Leung, 2013: 464).

However, this learned knowledge – according to the monitor hypothesis under Krashen’s monitor model – can only function as a Monitor or editor of the learners’ production out of the knowledge which was acquired implicitly (Krashen, 2009: 15), and this “Monitor” can be done only when the following three conditions are met: (1) Time (i.e. the learners have sufficient time to consciously think about the rule), (2) Focus on form (i.e. the learners are paying attention to form, or correctness, rather than meaning), and (3) Know the rule (i.e. the learners know and are able to resort to the right set of rule(s) relevant to the target structure(s) being processed).

3.1.2 Implicit instruction

Implicit instruction, as opposed to explicit instruction, is conducted “spontaneously in an otherwise communication-oriented activity” without any involvement of metalanguage (Lichtman, 2013: 95). The treatment (i.e. instruction) is said, according to Norris & Ortega (2001, cited in Lichtman, 2013: 95), to include only pools of input, interaction, and recasts where learners are only joining activities containing the target features without knowing the subject matter being taught.

Consequently, according to Ellis & Shintani (2014: 85), this kind of instruction leads to “incidental language learning” or “unconscious knowledge which one is unaware of possessing” (Chan & Leung, 2013: 464). To support this, Chung (2007: 54) stated that implicit knowledge encourages “a phenomenal sense of intuition” i.e. the learners might respond in conversations using particular structures because they ‘feel right’ about them (Krashen, 2009: 10; Gasparini, 2004: 205, cited in Chung, 2007: 54). It is also stated in Chung (2007: 54) that the absence of “metaknowledge (i.e. the knowledge that one has knowledge)” is a crucial characteristic of implicit knowledge. However, this kind of knowledge is not verbalisable (Chung, 2007: 54-55) i.e. learners, relying on their “feel for correctness” (Krashen, 2009: 10) are able to use the language in conversations, but cannot talk about the rules of the structures they are using. That is, for example, they might know that this grammatical feature is suitable for a particular context because it sounds correct, and errors sound wrong to them (Krashen, 2009: 10); however, they might not be able to explain why it is correct or to consciously tell which rule has been violated in case of errors. So,

in short, implicit learning is an unconscious process resulting in implicit knowledge which cannot be expressed.

Under Krashen's monitor model, the term 'implicit learning' is one of the surrogates for 'acquisition' (Krashen, 2009: 10). This acquisition, according to the monitor hypothesis, "initiates" learners' utterances and "is responsible for [their] fluency" (Krashen, 2009: 15). According to Birdsong (1989, cited in Chung, 2007: 55-56), moreover, implicit knowledge is "automatic and ready to use" while explicit knowledge comes into play only to edit the "imperfect automatic production from implicit knowledge" (Chung, 2007: 56).

To clarify, under Krashen's theory, the function of explicit knowledge is to fix the learners' output produced out of their implicit knowledge (Krashen, 2009: 15).

As for the effectiveness of both kinds of instructions, Ellis (2002: 643, cited in Chung 2007: 56) stated that "the effectiveness of an implicit or explicit instructional treatment may depend on the type of linguistic material being learned and the characteristic of the individual learners." To this respect, Ellis & Shintani (2014: 19) stated that explicit instruction is more effective with simple grammatical features while the opposite is true for complex ones.

However, several studies (De Graaff & Housen, 2009; Spada & Tomita's, 2010, both cited in Ellis & Shintani, 2014: 19) failed to support this interaction between the type of structure (i.e. simple or complex) and the type of instruction (i.e. explicit or implicit).

Whether or not the correlation is supported, it is claimed in Lichtman (2013: 95) that explicit instructions "generally cause significant larger effect size than implicit treatments". Also, learners are likely to perform explicit tasks better than implicit ones (Ellis, 2005, cited in Lichtman, 2013: 95) and "to master structure more quickly and accurately under explicit than implicit instructional conditions" (Lichtman, 2013: 95).

To support this, a number of studies have suggested that explicit instruction is beneficial in many ways. For example, Saito (2013) examined whether explicit pronunciation instruction affects the accuracy of French learners' pronunciation in a classroom context. The pronunciation ability or accuracy of advanced undergraduate learners of L2 French who both enrolled and did not enroll in a French pronunciation course was compared. The result showed that there was no significant difference between the two groups at the beginning of the semester or before the explicit phonetic instruction. However, the posttest result showed a significant improvement in the experimental group who received explicit pronunciation instruction.

However, certain studies have found the result to be in favor of implicit instruction. For example, Peter MacCandless and Harris Wintiz (1986, cited in Chung, 2007: 59-60) examined the effect of explicit and implicit

instruction on speaking production of German. While the explicit instruction involved rule explanation, English translations of German texts, and drills, which the participants needed to complete, the implicit instruction was concerned only with comprehension-focused activities, in which the participants needed to participate. The study found that the implicit group outperformed the explicit one.

3.2 Previous studies

Concerning the effects of explicit and implicit instruction on L2 pronunciation, a number of studies have been conducted to investigate the issue. To name a few, Sturm (2013) conducted a study examining whether explicit pronunciation instruction affects the accuracy of French learners' pronunciation in a classroom context. The pronunciation ability or accuracy of the students who enrolled in a French pronunciation course and that of those who did not were compared; Saito (2013) investigated whether and to what degree the combination of explicit phonetic information (EI) and form-focused instruction (FFI) can enhance the generalizability and magnitude of FFI effectiveness; and Lord (2010) studied the combined effect of immersion (i.e. SA or study abroad program, in this case) and explicit instruction on second language pronunciation. Though with different approaches and initial objectives of the studies, the results of the three studies harmoniously showed that explicit instruction, especially explicit phonetics and pronunciation instruction was proved to be effective, beneficial, and crucial for students' improvement.

Apart from past research on overall English pronunciation, or segmentals in English, the effect of explicit and/or implicit instruction on the pronunciation of English stress has also been investigated in certain studies (e.g. Chung, 2007; Fotovatnia & Omid, 2013; Chan & Leung, 2014; Saito & Saito, 2016). For example, Chan & Leung (2014) investigated the possibility of implicit learning of second language (in this case Spanish) stress patterns. The participants were 52 Cantonese-English bilinguals divided into two groups (37 experimental: 15 control). Their English proficiency was intermediate to advanced. Nobody had any knowledge of Spanish prior to the experiment. Two sets of audio recordings were used in the experiment. The training set contained 16 Spanish verbs ending in '-ar' or '-o', which were randomly repeated four times for the participants to repeat during practice session. The testing set, consisted of 24 new Spanish verbs. Also, an interview, referred to in the study as a 'verbal report', was conducted to measure the participants' awareness of stress rules after the experiment. As for the results, evidence of the possession of implicit knowledge of L2 stress among the participants was indicated, confirming the hypothesis that L2 stress rules can be learned implicitly. In terms of pedagogical implications, the paper suggested that learners can gain linguistic knowledge through exposure without rules being taught explicitly.

Additionally, Chung (2007) examined the effectiveness of explicit, implicit, and noticing instruction on English sentence stress among Mandarin learners of English. Eighty-six advanced students participated in this study. They were divided into three groups: an explicit group receiving explicit instruction; an implicit group studying through a humming activity; and a noticing group who were asked to notice and respond to the sentence stress without any involvement of metalinguage. As for data collection and analysis, a pre-test, post-test, and delayed post-test were administered. The results of the study showed that the noticing group performed significantly better than the other two groups, based on the immediate post-test result. However, the results from the delayed post-test indicated that the explicit group outperformed the other two groups, leading to the conclusion that explicit instruction had a slightly better retention. As for the participants' perception of all three types of instruction, the participants found them helpful to a certain degree. Concerning pedagogical implications for Mandarin speakers learning English, the researchers suggested combining all three types of instruction investigated in the study when teaching English rhythm, stress, and intonation.

Moreover, there are also a few studies regarding English stress among L1 Thai learners (Khamkhien, 2010; Jangjamras, 2011; Wayland, 2006). For example, Khamkhien (2010) conducted a study aiming to assess Thai learners' knowledge of English word stress assignment and to determine possible factors affecting competence. The participants were 90 Thai university students. The main instrument used was a list of 40 words taken from two textbooks used by the participants. In order to assess their competence in word stress assignment, the participants were asked to identify the correct stressed syllable by marking an X on a particular syllable. The results showed that the participants' competence in word stress assignment was limited, and gender seemed to be a significant factor affecting ability.

In addition, Jangjamras (2011) studied the perception and production of English lexical stress by Thai speakers, using 15 native Thai speakers, and 15 native American speakers as participants. Perception and production tasks of English non-words drawn from a specifically designed corpus were employed in the study to test the influence of Thai tone assignment and stress position on production and perception of English stress. The results showed that the participants were significantly more accurate in identifying initial stress than final stress. This led to the conclusion that native Thais were not influenced by Thai tonal rules as much as hypothesized when producing English lexical stress.

However, these existing studies – albeit concerning English stress among L1 Thai learners as illustrated – involved neither explicit and/or implicit instruction nor their effects on L1 Thai learners' pronunciation of English stress.

To fill in the gap, therefore, the present study aims to investigate the effectiveness of explicit and implicit instruction on the pronunciation of English word stress among L1 Thai learners.

3.3 English word stress

According to Jotikasthira (1999: 29), Ladeforged (2011: 78), and Collins & Mees (2013: 129-130), *stress* can be simply described as a syllable which is pronounced louder, longer with full length of vowel, and higher in pitch.

Basically, there are three degrees of stress in English: primary stress, secondary stress, and weak stress or unstressed (Jotikasthira, 1999: 29-30; Collins & Mees, 2013: 131; Ladefoged, 2011: 79). The following are brief descriptions of each stress respectively.

(1) **Primary stress:** According to Jotikasthira (1999: 29) and Collins & Mees (2013: 131), this stress is the loudest or the strongest stress which must exist in every English word. The symbol indicating primary stress is a superscript ['] placed in front of the syllable receiving the stress.

(2) **Secondary stress:** Though this stress is not required in every word as in the case of primary stress, it usually appears in words with three or more syllables (Jotikasthira, 1999: 29). This stress is pronounced a little bit softer than the primary one, or at a “normal speaking level” (Jotikasthira, 1999: 29). The symbol for secondary stress is a subscript [,] placed in front of the syllable receiving the stress.

(3) **Weak stress (Unstressed):** Weak stress is normally pronounced even softer than normal speaking level (Jotikasthira, 1999:30). It is usually unmarked, and the vowel of the syllable receiving this stress is usually /ə/ or /ɪ/ (Jotikasthira, 1999:30).

The following table summarizes the characteristics of these degrees of English stress:

Table 1: Characteristics of different degrees of English stress

NO.	Degree of English stress	Characteristic(s)	Symbol	Example(s)
1	Primary stress	- the loudest stress - must occur in every word in English	- a superscript ['] placed in front of the syllable receiving primary stress	English /'ɪŋ.ɡlɪʃ/
2	Secondary stress	- quieter than primary stress - usually found in three-syllable words or more	- a subscript [,] placed in front of the syllable receiving secondary stress	pronunciation /prəˌnʌn.si'ei.fən/
3	Weak stress / Unstressed	- softer than the normal speaking level - vowels usually found in syllables receiving weak stress or unstressed syllables are /ə/ or /ɪ/	- unmarked	experiment /ɪk'sper.ə.mənt/

According to Collins & Mees (2013: 131), the pattern of stress placement varies across languages. In some languages in the world stress is said to be “language invariable”. That is to say stress has its more or less particular position in a word. For example, stress normally falls on the initial syllable in Czech and Slovak; in the final syllable for words in French & Turkish (Collins & Mees, 2013: 131; Ladefoged, 2011: 80). As for English and some other languages such as German or Dutch, stress is said to be “lexically designated” (Collins & Mees, 2013:131), meaning that “not only stress can occur at any point in the word but, crucially, it is fixed for each individual word.” (Collins & Mees, 2013: 131).

Regarding English stress, Quinn (1996: 9) wrote “...English stress patterns may seem quite arbitrary...” In addition, Collins & Mees (2013: 131) stated “...rules for stress are complex and have numerous exceptions.” However, the feature is still believed to be “completely predictable” (Collins & Mees, 2013: 131; Ladefoged, 2011: 81). To clarify, English stress is believed to be predictable based on the fact that native speakers are able to assign the correct stress of unfamiliar words. This implies that some sort of underlying rule system does exist (Collins & Mees, 2013: 131; Ladefoged, 2011: 81).

In fact, several guidelines and observations concerning possible common rules governing English stress have been compiled. For example, Quinn (1996: 9-15) elaborated five of the most important tendencies (i.e. rules) for English word stress: (1) the initial stress tendency; (2) the segmental weight tendency; (3) syntactic class tendency; (4) the affixation rules; and (5) the compound word rule.

To further elaborate on these common rules, the following are details and some relevant examples.

(1) The initial stress tendency: Generally for words with two or three syllables, the first syllable will be stressed i.e. bear primary stress (Quinn, 1996: 9; Jotikasthira, 1999: 30).

For example:

(1) ¹people

(2) ¹document

(2) The segmental weight tendency: Stress under this rule is said to be attracted by the heaviness of a syllable (Quinn, 1996: 9; Ladefoged, 2011: 82). A heavy syllable, according to Ladefoged (2011: 82), is one “consisting of long vowels, diphthongs, or codas (i.e. final consonant sounds)” while a light syllable is one with short vowels. Normally in English, the heavy syllable bears stress.

For example:

(3) ap^l peal (Ladefoged, 2011: 82)

(4) enter^l tain. (Ladefoged, 2011: 82)

(3) Syntactic class tendency: Some stress patterns of certain English words are “seen to be related to their syntactic category” (Quinn, 1996: 13). To this matter, Ladefoged (2011: 80) stated that English stress may be able to “distinguish between words” or has a “differentiating function”. For example, Avery & Ehrlich (1992: 67, cited in Quinn, 1996: 12) stated that “90% of bisyllabic English nouns are stressed on the first syllable while 60% of all bisyllabic verbs are stressed on the second.”

For example:

	Noun	Verb
(5)	re ^l cord	re ^l cord
(6)	ex ^l port	ex ^l port

(4) The affixation rules: The stress is more predictable when certain suffixes are added (Quinn, 1996: 14). There are basically two sub-groups under this rule, according to Collins & Mees (2013: 132):

(4.1) Stress on the suffix itself: For words in this group, the stress will fall on the suffix added as shown in Table 2.

Table 2: Examples of words with stress on the suffix

suffix (ending)	example
-ade (nouns)	pa' <u>rade</u>
-ain (verbs)	ab' <u>stain</u>
-ee (nouns)	interview' <u>ee</u>
-eer, -esque (adjs/nouns)	engi' <u>neer</u>
-esce (verbs)	conva' <u>lesce</u>
-ess (verbs)	as' <u>sess</u>
-ette (nouns)	statu' <u>ette</u>
-ique (nouns/adjs)	cri' <u>tique</u>
-oon, -self/-selves	lam' <u>poon</u>

(4.2) Stress on syllable preceding the suffix: Stress for words in this group falls on the syllable that comes before the suffix as shown in Table 3.

Table 3: Examples of words with stress on syllable preceding the suffix

suffix (ending)	example
-ative	al'tern <u>ative</u>
-itive	'pos <u>itive</u>
-cient	'anc <u>ient</u>
-ciency	de'f <u>iciency</u>
-eous	ou'tr <u>ageous</u>

(5) The compound word rule: In general, the primary stress usually falls on the initial word of the two-word compound nouns (Jotikasthira, 1999: 33; Quinn, 1996: 14) while it often falls on the second word of the compound verbs (Jotikasthira, 1999: 35). The following table displays different stress position concerning compound words under this rule.

Table 4: Stress position of compound nouns and verbs

Compound nouns	Compound verbs
'newspaper	over'hear
'farmhouse	over'work
'underwear	under'stand

Even though these stress regularities do not actually rule out the existence of certain exceptions, Collins & Mees (2013: 131) state that it might be best for non-native learners to “consider English stress as being in part rule-governed, and only concern themselves with learning the most useful and frequent pattern.”

4. Methodology

This section is divided into four main parts: 4.1 Participants, 4.2 Instruments, 4.3 Procedure, and 4.4 Data analysis.

4.1 Participants

There were 16 participants in this study. All of them were first-year students in the Faculty of Arts, Chulalongkorn University. Their age range was 18 – 20. Their average length of English study was 10 years. All of them, according to the Oxford Placement Test, were intermediate learners without prior knowledge concerning phonetics and phonology. None of them had taken any courses regarding English pronunciation and none had never lived abroad. The participants were divided into two groups: The first group, referred to as “explicit group”, received explicit instruction while the other group, referred to as “implicit group”, received implicit instruction.

4.2 Instruments

Three different materials serving three different purposes were employed in this study: pre-test, materials for the experiment (i.e. explicit and implicit instruction), and post-test. Each of the instruments is briefly discussed below in turn followed by a table displaying a summary of all instruments.

Pre-test¹: A pre-test was used to investigate if the participants were able to identify correct stress and accurately pronounce the given English words. There were two parts in the test. Part I involved 58 English words, 19 of which were nouns and verbs requiring different stress position such as *progress* (v.), *desert* (n.); another 20 items were words with certain suffixes which attract stress e.g. *monsoon*, *technique*, *himself*; and the last 19 items were words with another set of suffixes which attract stress to fall on the syllable preceding them e.g. *political*, *identify*, *casual*. The participants were asked to record their pronunciation of these words in this part. As for Part II, the content was the same as in Part I, but the participants were asked to identify the stress of each word in writing instead of pronouncing it.

Materials for the experiment²: Materials for the experiment were divided into two sets – Set I was for explicit instruction; and Set II was for implicit instruction. The materials in Set I provided the participants with rules of English word stress under investigation: the syntactic class tendency and the affixation rules, together with some examples.

For example:

- (18) 2. Words ending in the following suffixes usually have primary stress on the ending:

Ending	Example
-oon	ty'phoon, car'toon, mon'soon
-eer	engi'neer, pio'neer, volun'teer

As for the materials in Set II, they were only lists of words and a recording which the participants listened to and repeated. No symbols or rules were present in the materials. Moreover, it should be noted that the audio was recorded by one of the native instructors in the Faculty of Arts, and the words given in these lists were the same words contained in the materials in Set I.

For example:

(19) **Set II**

typhoon cartoon monsoon engineer pioneer volunteer

Post-test³: A post-test was employed to examine the participants' pronunciation of English word stress after instruction in order to see if it improved or declined, and to what extent. The number of words was identical to the pre-test. However, the order of the given words varied.

It should be noted here that the instruments employed in this study were validated by an American native speaker, who is one of the instructors in the Department of English, Faculty of Arts prior to the experiments. In addition, the words included in both the pre-test and post-test were mainly taken from two sources: *Practical Phonetics and Phonology* (Collins & Mees, 2013) and *Introduction to the English Language: System and Structure* (Jotikasthira, 1999). Moreover, all the words were of A2-B2 level according to CEFR⁴. Therefore, it is possible to assume that all the words selected did not exceed the scope of the participants' vocabulary knowledge in the present study.

4.3 Procedure

A few weeks prior to the experiment, the Oxford Placement Test (OPT) was given to the participants as a take-home assignment. The participants were told to spend only 30 minutes on the test in a private and quiet environment. Since the participants were divided into two groups, the experiment was conducted on two different days. In each experiment, the participants completed the pre-test, spending around 15 minutes before receiving either explicit or implicit instruction. Immediately after instruction, the participants completed the post-test. The tests consisted of two parts. For the first part of both pre- and post-test, the participants needed to record their

pronunciation of the words given. As for the second part, the participants were asked to identify the correct stress for each word in the previous part (i.e. Part I). The duration of both experiments, inclusive of pre- and post-test was about an hour.

It should be noted here that while the explicit group was explicitly introduced to certain word stress rules, and practices, the implicit group was only told to study word pronunciation, and asked to listen and repeat after the audio, details of which are described in Section 4.2.

In addition, since the participants were required to record their pronunciation both for the pre- and post-tests, the experiment was conducted in the Faculty's language lab where they could record their pronunciation at the same time within the same environment. The recording was saved as an MP3 file for the researcher and raters to analyze accordingly.

Regarding the raters, they (i.e. two of them) were asked to help assess the participants' recorded pronunciation to strengthen the reliability of the assessment results. The first rater was a native speaker who is a lecturer in the Department of English at the Faculty of Arts. The other rater was a Thai lecturer in the same department and faculty with lots of experience in English pronunciation teaching.

4.4 Data analysis

The data were analyzed by three raters: the researcher, a native speaker who is one of the instructors in the Faculty of Arts, and a Thai lecturer who is also one of the instructors teaching pronunciation in the Faculty of Arts.

To analyze the data collected, the researcher and the two raters listened to the recordings of the participants' pronunciation. The raters were told to focus their attention on the accuracy of the pronunciation of the English word stress, and to ignore other aspects of pronunciation (e.g. errors at segmental level).

In terms of scoring, the participants were given one point if they applied the correct stress to the given words, and no point for any incorrect application. The same measurement was applied both in the pronunciation part (i.e. Part I), and the identification part (i.e. Part II) of both tests (i.e. pre- and post-test). The scores given by the researcher and the raters were compared for a consensus of assessment i.e. if the scores given were not all agreed, the one that was agreed by two out of three raters was taken.

Concerning the calculation, it should be noted that the full score of each participant in the oral production task as you will see later in Results was different since some of the participants mispronounced certain words e.g. adding another syllable from 'bou.tique' to 'bou.ti.que', or reducing a syllable from 'stat.u.esque' to 'stat.u', which might affect how they applied the stress.

Therefore these kinds of words were excluded from the data, resulting in different full scores.

5. Results

Seeing from a clear improvement achieved by the explicit group, the results of the present study indicate a trend in favor of explicit instruction. The details are shown in the following tables.

Table 5: Results of the oral production and the identification task by the explicit group

Results of the oral production and the identification task by the explicit group								
Participant	Part I: Oral production					Part II: Identification (58)		
	pre-test		post-test		increase / decrease (%)	pre-test (%)	post-test (%)	increase / decrease (%)
1	26/57	46%	44/58	76%	+ 30	48	86	+ 36
2	29/53	55%	35/56	63%	+ 8	43	74	+ 31
3	47/58	81%	56/58	97%	+ 16	69	100	+ 31
4	37/56	66%	47/58	81%	+ 15	57	98	+ 41
5	30/56	54%	37/57	65%	+ 11	53	84	+ 31
6	42/56	75%	53/57	93%	+ 18	59	97	+ 38
7	29/55	53%	47/58	81%	+ 28	47	88	+ 41
8	41/56	73%	55/58	95%	+ 22	81	97	+ 16

Table 6: Results of the oral production and the identification task by the implicit group

Results of the oral production and the identification task by the implicit group								
Participant	Part I: Oral production					Part II: Identification (58)		
	pre-test (%)		post-test (%)		increase / decrease (%)	pre-test (%)	post-test (%)	increase / decrease (%)
1	41/56	73%	33/58	57%	-16	52	71	+ 19
2	39/56	70%	41/58	71%	+ 3	59	72	+ 13
3	36/56	64%	42/58	72%	+ 8	62	81	+ 19
4	37/55	67%	47/56	84%	+ 17	57	93	+ 36
5	33/56	59%	27/57	48%	- 11	50	59	+ 9
6	23/54	43%	33/55	60%	+ 17	43	57	+ 14
7	33/56	59%	32/55	58%	- 1	47	79	+ 32
8	38/55	69%	37/58	64%	- 5	60	71	+ 11

Broadly speaking, it can be seen that in the oral production task, while all the participants in the explicit group performed better in their post-test, only some in the implicit group did in the same task. To be more specific, half of the implicit group performed better (i.e. participants 2, 3, 4, and 6 improved by 3%, 8%, 17%, and 17%, respectively) while the other half performed more poorly (i.e. scores of participants 1, 5, 7, and 8 decreased by 16%, 11%, 1%, and 5%, respectively). On the other hand, in the identification task, all of the participants, both the explicit and the implicit group, performed better in their post-test.

To give a clearer picture, Table 7 below compares the results for both groups of participants.

Table 7: Comparison of the results from the oral production and the identification tasks by group

Comparison of the results from the oral production and the identification tasks by each group												
Participant	Oral production (%)						Identification task (%)					
	Explicit			Implicit			Explicit			Implicit		
	Pre	Post	difference	Pre	Post	difference	Pre	Post	difference	Pre	Post	difference
1	46	76	+30	73	57	-16	48	86	+38	52	71	+19
2	55	63	+8	70	71	+1	43	74	+31	59	72	+13
3	81	97	+16	64	72	+8	69	100	+31	62	81	+19
4	66	81	+15	67	84	+17	57	98	+41	57	93	+36
5	54	65	+11	59	48	-11	53	84	+31	50	59	+9
6	75	93	+18	43	60	+17	59	97	+38	43	57	+14
7	53	81	+28	59	58	-1	47	88	+41	47	79	+32
8	73	95	+22	69	64	-5	81	97	+16	60	71	+11
Average	63	81	N/A	63	64	N/A	57	91	N/A	54	73	N/A
increase / decrease	+ 18		N/A	+ 1		N/A	+ 34		N/A	+ 19		N/A

From Table 7, it can be seen that in the oral production part, the participants from both groups, in their pre-test, initially gained exactly the same average score of 63%. This indicates that their ability regarding English word stress was equal at the beginning. However, in their post-test, it is obvious that the explicit group outperformed the implicit group, gaining up to 18% improvement from the pre-test while the implicit group improved only 1%.

As for the identification task, both groups of participants – in their pre-test – gained a similar average score i.e. 57% for the explicit group, and 54% for the implicit one. However, in their post-test, the scores of the explicit group improved up to 34% whereas those of the implicit group improved much less, or up to only 19%.

In addition to this, the scores were broken down into separate results for words under each rule of word stress being investigated i.e. syntactic class tendency, and the affixation rules which are also divided into stress on the suffix, and stress before the suffix. Regarding this, Table 8 and 9 below display the

accuracy rates (by rules) produced by the explicit group and the implicit group, respectively.

Table 8: Accuracy rates of English word stress produced by the explicit group

No.	Oral production									Identification task								
	Syntactic class tendency (%)			Affixation: stress on the suffix (%)			Affixation: stress before the suffix (%)			Syntactic class (%) tendency			Affixation: stress on the suffix (%)			Affixation: stress before the suffix (%)		
	Pre	Post	Difference	Pre	Post	Difference	Pre	Post	Difference	Pre	Post	Difference	Pre	Post	Difference	Pre	Post	Difference
1	37	84	+47	58	70	+12	42	74	+32	53	100	+47	55	90	+35	42	68	+26
2	47	63	+16	40	44	+4	74	79	+5	58	100	+42	50	95	+45	26	47	+21
3	68	100	+32	75	100	+25	100	89	-11	58	100	+42	50	100	+50	100	100	0
4	68	84	+16	44	70	+26	84	89	+5	58	100	+42	45	100	+55	68	95	+27
5	63	84	+21	39	53	+14	58	58	0	58	95	+37	40	95	+50	63	63	0
6	74	95	+21	78	84	+6	74	100	+26	53	100	+47	45	90	+45	79	100	+21
7	53	100	+47	41	70	+29	63	74	+11	42	100	+58	30	80	+50	68	84	+16
8	94	100	+6	50	90	+40	74	95	+21	100	100	0	55	95	+40	89	95	+6
Average (%)	63	89	N/A	53	73	N/A	71	82	N/A	60	99	N/A	46	93	N/A	67	82	N/A
Increase/decrease	+26			N/A			+ 20			N/A			+ 11			N/A		

Table 9: Accuracy rates of English word stress produced by the implicit group

No.	Oral production									Identification task								
	Syntactic class tendency (%)			Affixation: stress on the suffix (%)			Affixation: stress before the suffix (%)			Syntactic class (%) tendency			Affixation: stress on the suffix (%)			Affixation: stress before the suffix (%)		
	Pre	Post	Difference	Pre	Post	Difference	Pre	Post	Difference	Pre	Post	Difference	Pre	Post	Difference	Pre	Post	Difference
1	53	32	+21	100	60	-40	68	79	+11	58	89	+31	30	50	+20	68	74	+6
2	68	89	+21	67	50	-17	74	74	0	68	100	+32	40	45	+5	68	74	+6
3	53	53	0	56	65	+9	84	100	+16	47	68	+21	55	75	+20	84	100	+16
4	74	95	+21	41	72	+31	84	84	0	58	95	+37	30	95	+65	84	89	+5
5	42	26	-16	50	58	+8	84	58	-26	42	42	0	55	70	+15	53	63	+10
6	47	58	+11	63	47	-16	21	74	+53	42	58	+16	35	65	+30	53	47	-6
7	53	32	-21	63	67	+4	65	78	+13	47	100	+53	55	95	+40	37	42	+5
8	47	42	-5	83	65	-18	78	84	+6	58	58	0	50	60	+10	74	95	+21
Average (%)	55	53	N/A	65	61	N/A	70	79	N/A	53	76	N/A	44	69	N/A	65	73	N/A
Increase/decrease	- 2			N/A			- 4			N/A			+ 9			N/A		

According to Table 8, it can be seen that after receiving instruction, all the participants in the explicit group – in the oral production task –, became more accurate in words under every rule being investigated. On average, the explicit group became 26% more accurate in words under the syntactic class tendency rule; 20% more accurate in words under the affixation: stress on the suffix rule; and 11% more accurate in words under the affixation: stress before the suffix rule. Likewise, in the identification task, the explicit group became 39% more accurate in words under the syntactic class tendency rule; 47% more accurate in words under the affixation: stress on the suffix rule; and 15% more accurate in words under the affixation: stress before the suffix rule.

According to Table 9, however, after receiving instruction, the participants in the implicit group – in their oral production – became more

accurate only in words under the affixation: stress before the suffix rule. They performed worse in words under the syntactic class tendency rule, and the affixation: stress on the suffix rule. However, the implicit group performed more accurately after instruction in words under every rule in their identification task. They became 23% more accurate in words under the syntactic class tendency rule; 25% more accurate in words under the affixation: stress on the suffix rule; and 8% more accurate in words under the affixation: stress before the suffix rule. Based on these results, it can be seen that a trend in favor of explicit instruction was indicated.

6. Discussion

This study aims to explore which type of instruction - explicit or implicit - works more effectively in improving L1 Thai learners' ability to correctly pronounce and identify English word stress.

As described in Section 5, explicit instruction appeared to yield better results. To elaborate, the result comparison as shown in Table 9 above indicates that even though both the explicit and implicit groups improved their performance in English word stress pronunciation and identification, it was the explicit group that showed higher rates of improvement.

In addition, it is not only the overall scores that suggest the effectiveness of explicit instruction over implicit instruction. As can be seen from Tables 10 and 11, when the scores were broken down into separate rules of word stress under investigation, it was also quite obvious that the explicit instruction helped improve the participants' performance in both pronouncing and identifying English word stress under different rules as well. In contrast, implicit instruction did not only seem to play little role in the participants' improvement, but also led to poorer results by the participants in the group.

The fact that the explicit instruction seemed to work more effectively in improving L1 Thai learners' competence in English word stress supports the hypothesis of the study.

The following discussion deals with a possible reason why the explicit group outperform the implicit one – both in the oral production and the identification task

As previously described, explicit instruction involves presentation of rules of a target feature, which encourages learners to develop metalinguistic knowledge (Ellis et al., 2009: 17), resulting in, according to Krashen (2009: 10), “conscious knowledge of a second language, knowing the rules, being aware of them, and being able to talk about them.” Consequently, this kind of knowledge serves as a ‘Monitor’ – according to the monitor hypothesis proposed by Krashen (2009: 15-20) – editing the learners' utterances or performances, making them more accurate.

Moreover, since the ‘Monitor’, and conscious rules are said to be used only when three conditions are met (i.e. Time, Focus on form, and Know the rule), it is quite possible to speculate, in regards to the results of the present study, that the participants in the explicit group were able to ‘Monitor’ their tasks since they had enough time to think about the rules they had learned. Because the tasks were untimed, they focused on form or correctness rather than meaning (i.e. they knew they were completing a test requiring accuracy), and they knew the rules provided throughout the explicit instruction they received.

On the other hand, however, even though the participants in the implicit group underwent the same tasks and procedures, the conditions – encouraging the use of the ‘Monitor’, which could increase accuracy – were different. That is, while the implicit group also had time, and focused on form, it was hard to say that they knew the exact rules of English word stress under investigation since the implicit instruction they received did not provide any metalinguistic knowledge or exact rules concerning the English word stress being examined.

Based on this speculation, the fact that the explicit group might have been able to ‘Monitor’ the tasks while the implicit group might not have can be one of the reasons why the explicit group became more accurate – than the implicit group - to a certain extent after instruction, resulting in a better performance.

The results of the present study are consistent with those found in Chung (2007: 89-90), which showed that the explicit participants outperformed the ‘implicit’ and the ‘noticing’ groups. The researcher concluded that the learned knowledge – or explicit knowledge – of ‘sentence-stressed placement’, which was the focus of the study, served as the monitor to the production of the explicit participants. That is to say, the participants in the explicit groups had access to the stressed words in the sentences being tested while neither the implicit nor noticing participants had direct access to them because the explicit knowledge was not addressed (Chung, 2007: 90).

7. Conclusion

The present study aims at examining the effectiveness of explicit instruction versus implicit instruction regarding English word stress among L1 Thai learners, attempting to answer which type of instruction between the two works more effectively in improving L1 Thai learners’ competence in English word stress. After the experiments, the results clearly suggested a trend supporting explicit instruction, showing that the explicit group improved more than the other group. One possible reason for this is that the explicit group might have been able to ‘Monitor’ their tasks while the implicit group might not have.

However, the results of this study should be taken with caution since one of the limitations of the present research is the number of participants, which was small. Another limitation concerns the time period allowed for the study.

Since it was quite limited, a delayed post-test could not be included in the research. Therefore, it is quite difficult to say to what extent the knowledge gained from the instructions remains over time.

As for further studies, it is recommended that researchers investigate the effectiveness of these types of instruction on other rules of English word stress, and that they examine which type of instruction works more effectively with what rule of English word stress.

Based on the results at this stage, however, it can be said that the more effective way to teach learners English suprasegmental features like word stress is to explicitly tell them the rules and have them do certain exercises, or through explicit instruction.

Notes

1. See Appendix I
2. See Appendix II
3. See Appendix II
4. CEFR or Common European Framework of Reference for Languages is an international standard for describing learners' language skills. The levels under CEFR range from A0-C2 where A0-A2 indicate a basic user in absolute beginner, beginner and elementary levels respectively; B1-B2 indicate an independent user in intermediate and upper-intermediate levels respectively; C1-C2 indicate a proficient user in advanced and proficiency levels respectively.

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Appendixes

Appendix I: Pre-test

Part I

Direction: Read the following words.

- | | | | |
|-------------------|------------------|------------------|------------------|
| 1. progress (v.) | 2. monsoon | 3. present (v.) | 4. contest (n.) |
| 5. subject (n.) | 6. volunteer | 7. silhouette | 8. outrageous |
| 9. nominee | 10. protest (n.) | 11. technique | 12. contain |
| 13. record (v.) | 14. dynamic | 15. technology | 16. kitchenette |
| 17. political | 18. cocoon | 19. escort (n.) | 20. ability |
| 21. casual | 22. picturesque | 23. comedian | 24. insult (v.) |
| 25. grammarian | 26. rebel (v.) | 27. yourselves | 28. desert (n.) |
| 29. photography | 30. conduct (v.) | 31. employee | 32. Chinese |
| 33. object (n.) | 34. Vietnamese | 35. mountaineer | 36. boutique |
| 37. detail (v.) | 38. himself | 39. extract (n.) | 40. produce (n.) |
| 41. continuous | 42. invade | 43. typical | 44. dramatic |
| 45. conflict (v.) | 46. creation | 47. explain | 48. parade |
| 49. statuesque | 50. refund (n.) | 51. satisfy | 52. apology |
| 53. electricity | 54. reject (v.) | 55. biography | 56. identify |
| 57. manual | 58. incline (n.) | | |

Part II

Direction: Identify stress for each word in **Part I** by putting ['] in front of a particular syllable.

Example: (1) re'ject (2) 'practice

Appendix II: Materials for explicit and implicit instruction

a. Explicit group: Instruction material.

English Word Stress

NO.	Degree of English stress	Characteristic(s)	Symbol	Example(s)
1	Primary stress	- the loudest stress - must occur in every word in English	- a superscript ['] placed in front of the syllable receiving primary stress	English /'ɪŋ.ɡlɪʃ/
2	Secondary stress	-quieter than primary stress - usually found in three-syllable words or more	- a subscript [,] placed in front of the syllable receiving secondary stress	pronunciation /prəˌnʌn.si'ei.fən/
3	Weak stress / Unstressed	- softer than the normal speaking level - vowels usually found in syllables receiving weak stress or unstressed syllables are /ə/ or /ɪ/	- unmarked	experiment /ɪk'sper.ə.mənt/

Certain rules of English word stress

1. Nouns and verbs having the same spelling may be distinguished by a different stress:

NOUNS normally have primary stress on the first syllable whereas **VERBS** usually have primary stress on the second.

NOUN	VERB
'contest	con'test
'conduct	con'duct
'conflict	con'flict
'desert	de'sert
'extract	ex'tract
'discount	dis'count
'refund	re'fund
'insult	in'sult
'permit	per'mit
'present	pre'sent
'refuse	re'fuse
'suspect	sus'pect
'project	pro'ject
'rebel	re'bel
'protest	pro'test

2. Words ending in the following suffixes usually have primary stress on the ending:

Ending	Example(s)
-oon	ty'phoon, car'toon, mon'soon
-eer	engi'neer, pio'neer, volun'teer
-ee	emplo'yee, refe'ree, train'ee
-ese	Japa'nese, Vietna'mese, Bur'mese
-ade	pa'rade, sere'nade, ar'cade
-ette	statu'ette, bru'nette, silhou'ette
-ique	cri'tique, tech'nique, an'tique
-esque	pictur'esque, gro'tesque, bur'lesque
-self/-selves	my'self, himself, them'selves
-ain	ab'stain, com'plain, ex'plain

3. Words ending in the following suffixes usually have primary stress on the syllable BEFORE the ending:

Ending	Example(s)
-eous / -uous	ou'trageous, con'spicious, cou'rageous
-ian	pe'destrian, gram'marian, poli'tician
-ic	dra'matic, eco'nomie, his'toric
-ical	'radical, 'typical, 'chemical
-ion	cre'ation, o'ccasion, e'lection
-ity	a'bility, i'dentity, mo'rality
-ify	'classify, per'sonify, 'beautify
-ual	'actual, 'casual, 'gradual
-logy	derma'tology, psy'chology, a'pology
-graphy	bibli'ography, ge'ography, biography

b. Implicit group: Instruction material

English Word Stress

Direction: Listen and Repeat.

Set I

- It was a very even contest.
 - We will contest any claims made against us.
- The club has a strict code of conduct.
 - This is how to conduct research.
- There was a lot of conflict between them.
 - The two sides conflict with each other again,

4. (a) They were lost in the desert for nine days.
(b) How many people desert from the army each year?
5. (a) The cream contained extracts from several plants.
(b) They managed to extract the information from him
6. (a) Is there a discount on this?
(b) You shouldn't discount the possibility of him coming back.
7. (a) I'd like a refund please.
(b) We'll refund you 50%.
8. (a) She made several insults about my appearance.
(b) Frank always insults people.
9. (a) Do you need a permit to work here?
(b) The regulations do not permit much flexibility.
10. (a) They gave me theatre tickets as a present.
(b) She presents the late-night news.
11. (a) I don't want to see any kitchen refuse here.
(b) They always refuse my help.
12. (a) This is a photograph of the suspect.
(b) We had no reason to suspect him.
13. (a) My next project is decorating the kitchen.
(b) You really have to project your voice if you want to be heard.
14. (a) He was a rebel when he was a teenager.
(b) If you are too strict with teenagers, they often rebel.
15. (a) There's a student protest today.
(b) They sometimes protest against cuts.

Set II

typhoon	cartoon	monsoon	engineer	pioneer	volunteer
employee	referee	trainee	Japanese	Vietnamese	Burmese
parade	serenade	arcade	statuette	brunette	silhouette
critique	technique	antique	picturesque	grotesque	burlesque
myself	himself	themselves	abstain	complain	explain

Set III

outrageous	conspicuous	courageous	pedestrian	grammarian	politician
dramatic	economic	historic	radical	typical	chemical
creation	occasion	election	ability	identity	morality
classify	personify	beautify	actual	casual	gradual
dermatology	psychology	apology	bibliography	geography	biography

Appendix III: Post-test

Part I

Direction: Read the following words.

- | | | | |
|-------------------|------------------|------------------|-------------------|
| 1. yourselves | 2. volunteer | 3. Vietnamese | 4. reject (v.) |
| 5. typical | 6. protest (n.) | 7. technology | 8. technique |
| 9. detail (v.) | 10. subject (n.) | 11. statuesque | 12. silhouette |
| 13. satisfy | 14. record (v.) | 15. rebel (v.) | 16. progress (v.) |
| 17. produce (n.) | 18. present (v.) | 19. political | 20. picturesque |
| 21. photography | 22. parade | 23. outrageous | 24. object (n.) |
| 25. nominee | 26. mountaineer | 27. monsoon | 28. manual |
| 29. kitchenette | 30. invade | 31. insult (v.) | 32. refund (n.) |
| 33. incline (n.) | 34. identify | 35. himself | 36. grammarian |
| 37. extract (n.) | 38. explain | 39. employee | 40. electricity |
| 41. dynamic | 42. dramatic | 43. desert (n.) | 44. creation |
| 45. escort (n.) | 46. continuous | 47. contest (n.) | 48. contain |
| 49. conflict (v.) | 50. conduct (v.) | 51. comedian | 52. cocoon |
| 53. Chinese | 54. casual | 55. boutique | 56. biography |
| 57. apology | 58. ability | | |

Part II

Direction: Identify stress for each word in **Part I** by putting ['] in front of a particular syllable.

Example: (1) re'ject (2) 'practice