

# The Acquisition of the English Plural Morpheme by L1 Thai Learners: A Case of the Failed Functional Features Hypothesis

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## **Abstract**

This paper examines the acquisition of the English plural morpheme ‘-s’ by L1 Thai learners. The study hypothesized that, in line with the Failed Functional Features Hypothesis (FFFH), whereby functional features unselected in learners’ L1 are not accessible in second language acquisition (Hawkins & Chan, 1997; Hawkins & Liszka, 2003), but not with the Missing Surface Inflection Hypothesis (MSIH), whereby functional categories non-existent in learners’ L1 do not by necessity mean that learners cannot acquire these features since it is assumed that inappropriate L2 production is due to syntax-morphology mapping problems (Lardiere, 1998; Prévost & White, 2000), variable production of the English plural morpheme would occur, possibly due to impaired syntactic representation of the said feature in the native Thai language. Two groups of L1 Thai learners -- high and low English proficiency groups -- performed a grammaticality judgment task (GJT) and a cloze test. The results indicated that both proficiency groups displayed relatively low correct judgment and suppliance rates of the English plural marking, and that variable production of the English plural ‘-s’ was found across obligatory plural contexts. The findings indicated asymmetries of the plural morpheme use, i.e. the L2 learners supplied the English plural morpheme more particularly when some linguistic cues were present than when these cues did not exist. Overall, the results of both tasks confirmed the hypothesis, thus supporting the FFFH and confounding the MSIH. The findings contribute to the ongoing debate on L2 variability of functional morphology.

**Keywords:** Acquisition, English plural morpheme, L2 English, L1 Thai learners, Failed Functional Features Hypothesis

# การรับหน่วยคำบ่งชี้ความเป็นพหูพจน์ในภาษาอังกฤษโดย ผู้เรียนชาวไทย: กรณีศึกษาสมมติฐานแสดงลักษณะหน้าที่ที่ล้มเหลว

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## บทคัดย่อ

งานวิจัยฉบับนี้ศึกษาการรับหน่วยคำบ่งชี้ความเป็นพหูพจน์ในภาษาอังกฤษโดยผู้เรียนที่มีภาษาไทยเป็นภาษาแม่ โดยมีสมมติฐาน คือ การใช้หน่วยคำบ่งชี้ความเป็นพหูพจน์จะมีลักษณะแปรเปลี่ยน อาจเกิดจากรูปแทนทางไวยากรณ์ที่บกพร่องของหน่วยคำบ่งชี้ความเป็นพหูพจน์ในภาษาไทย ซึ่งสอดคล้องกับสมมติฐานแสดงลักษณะหน้าที่ที่ล้มเหลว (Failed Functional Features Hypothesis) ที่ว่าหน่วยคำแสดงหน้าที่ทางไวยากรณ์ซึ่งไม่ปรากฏในภาษาแม่ของผู้เรียนภาษาที่สองนั้น จะไม่สามารถรับได้ (Hawkins & Chan, 1997; Hawkins & Liska, 2003) แต่ผลการศึกษาคัดแย้งกับสมมติฐานการผันคำระดับพื้นผิวที่หายไป (Missing Surface Inflection Hypothesis) ที่ว่าหน่วยคำแสดงหน้าที่ทางไวยากรณ์ แม้ไม่ปรากฏในภาษาแม่ของผู้เรียน ก็ได้หมายความว่าผู้เรียนภาษาที่สองจะไม่สามารถรับได้ เนื่องจากมีสมมติฐานว่าการผลิตในภาษาที่ 2 ที่ไม่ถูกต้อง เกิดจากปัญหาการเชื่อมโยงวากยสัมพันธ์ไปยังหน่วยคำ (Lardiere, 1998; Prévost & White, 2000) กลุ่มผู้เรียนที่ใช้ภาษาไทยเป็นภาษาที่หนึ่ง 2 กลุ่ม ซึ่งมีสมิทธิภาพภาษาอังกฤษระดับสูงและระดับต่ำทำแบบทดสอบ 2 ชุด ได้แก่ Grammaticality Judgment Task (GJT) และ Cloze Test ผลการวิจัยชี้ให้เห็นว่าผู้เรียนทั้งสองกลุ่มตัดสินใจการใช้ รวมทั้งใช้หน่วยคำบ่งชี้ความเป็นพหูพจน์ได้อย่างถูกต้องในระดับต่ำ และการใช้หน่วยคำบ่งชี้ความเป็นพหูพจน์มีลักษณะแปรเปลี่ยนไปตามบริบทที่บังคับการใช้ คำนามรูปพหูพจน์ ผลวิจัยยังชี้ให้เห็นถึงอสมมาตรในการใช้หน่วยคำบ่งชี้ความเป็นพหูพจน์ กล่าวคือกลุ่มผู้เรียนจะใช้หน่วยคำบ่งชี้ความเป็นพหูพจน์โดยเฉพาะเมื่อมีคำบ่งชี้ความเป็นพหูพจน์ปรากฏร่วมมากกว่าเมื่อไม่มีคำบ่งชี้ความเป็นพหูพจน์ปรากฏ โดยรวมแล้ว ผลการวิจัยจากแบบทดสอบทั้ง 2 ชุด ยืนยันสมมติฐานแสดงลักษณะหน้าที่ที่ล้มเหลวและขัดแย้งกับสมมติฐานการผันคำระดับพื้นผิวที่หายไป ผลการวิจัยนี้มีส่วนต่อการอภิปรายที่ยังไม่มีข้อสรุปเกี่ยวกับเรื่องการใช้หน่วยคำทางไวยากรณ์อย่างแปรเปลี่ยนโดยผู้เรียนภาษาที่สอง

**คำสำคัญ:** การรับภาษาที่สอง หน่วยคำบ่งชี้ความเป็นพหูพจน์ในภาษาอังกฤษ ภาษาอังกฤษเป็นภาษาที่สอง ผู้เรียนชาวไทย สมมติฐานแสดงลักษณะหน้าที่ที่ล้มเหลว

## Introduction

The plural morpheme ‘-s’ is one of the eight inflectional morphemes in English, and it is used to denote the ‘more-than-one’ aspect of the language (Clark & Nikitina, 2009). For native English speakers, the English plural morpheme is primarily acquired around the age of three (Jia, 2003). According to Brown (as cited in Lightbown & Spada, 2006), it is acquired as early as the present progressive ‘-ing’ (e.g. walking) and the irregular past form (e.g. went).

However, for L2 learners of English, the acquisition of this plural morpheme is controversial. According to Krashen’s acquisition order of English grammatical morphemes (as cited in Lightbown & Spada, 2006), L2 learners could acquire the English plural morpheme in a similar way to native English speakers. Despite this result, post-puberty or adult L2 learners exposed to English for many years in an English speaking country have still been reported to encounter difficulty mastering English plural morphology (Jia, 2003). Among different language backgrounds, speakers from L1s that do not have a plural morpheme or treat it as optional or non-obligatory like Japanese, Korean, and Chinese were found to have difficulty with this functional feature, according to Dulay & Burt, Hakuta, Izumi & Isahara, Nuibe, Pak, Shin & Milroy, and Shirahata (as cited in Luk & Shirai, 2009). Having Thai as a native language, whose plural markers are non-existent, L1 Thai learners of English have been reported to omit the English plural morpheme (Ar-lae & Valdez, 2011; Pongpairroj, 2002; Pongsiriwet, 2001; Riewthong & Pimsarn, 2013; Viriyaaksonsakul, 2008; Watcharapunyawong & Usaha, 2012 among others), showing that the English plural morphology is problematic.

To the best of our knowledge, there has been no research on the L2 acquisition of English plural morphology by utilizing obligatory plural contexts among L1 Thai learners. This study will thus create the contexts where plural forms of nouns in question are required so as to see if Thai learners can acquire the English plural feature or not.

This study is organized as follows. Section 2 outlines the two opposing views related to variable production of L2 functional morphemes and presents the differences between the concept of plurality in English and Thai, obligatory plural contexts as well as previous studies. Sections 3 and 4 provide the hypothesis and the objectives of the study. Section 5 describes the methodology including participants and research

instruments, followed by the prediction of the results in Section 6. Section 7 concerns results and discussion. Section 8 draws a conclusion of the study.

## **Literature Review**

This section reviews the two opposing views concerning variable production of L2 functional morphology (2.1), the differences between the plural marking in English and Thai (2.2), obligatory plural contexts (2.3), and previous research studies on the English plural morpheme related to this study (2.4).

### **Two Views of Variable Production of L2 Functional Morphology**

Variable L2 production by post-childhood and adult L2 learners of English is common. It refers to a phenomenon whereby L2 learners sometimes correctly supply grammatical morphemes in an appropriate context, but other times omit or mark them in an inappropriate context. Such variability results in the search of its cause. Two opposing accounts pertinent to variable L2 production are, thus, proposed. They are described below. There are two divergent views relevant to the production of L2 functional features. The first view is target-like syntactic representations or the Missing Surface Inflection Hypothesis (MSIH) (Lardiere, 1998; Prévost & White, 2000).

The MSIH postulates that variable production of L2 functional categories stems from a mapping problem from abstract syntactic representations to morphological instantiations. L2 learners' underlying syntactic representations are not, in other words, reflective of impairment. Variability concerning L2 production of functional morphemes is attributed to the processing problem that occurs only at a surface level. Universal Grammar (UG) is, for the MSIH, fully available for L2 learners to make full use of. Therefore, L2 learners are assumed to be able to reach targetlikeness, even if their performance is not completely identical to that of native speakers (Lardiere, 2006).

In her longitudinal study, Lardiere (1998) concluded that, even though English verbal markings of past tense and third person singular present tense were omitted a great deal in her participant's oral production, she was able to acquire finiteness due to her syntactic representation of verb raising and case marking.

The opposing view is called non-target-like syntactic representations or the Failed Functional Features Hypothesis (FFFH) (Hawkins & Chan, 1997; Hawkins &

Liszka, 2003). The FFFH posits that non-existent functional morphemes in L1 have a negative influence on L2 acquisition. That is to say, learners' use of parameterized functional features not specified in L1 tends to diverge from those used by native speakers. Such features are inaccessible to L2 learners and are also subject to the critical period. Variable production of L2 functional morphemes is, thereby, inevitable. In addition, the FFFH is composed of two strands: 'global' and 'local' impairments. The global impairment holds that Universal Grammar (UG) exists in L1 acquisition, but not in L2. By contrast, the local impairment argues that variability in L2 functional morphology arises especially when L1 and L2 grammars are different. In other words, functional categories not instantiated in L1 cannot be attained by L2 learners. UG is, as a consequence, assumed to be partially available in the acquisition of functional morphology. This paper focuses exclusively on the local impairment.

Franceschina (2005) argued that, among her near-native second language learners of Spanish, the English speakers, the [-gen] group, and the French, Arabic, Italian, Greek, German, and Portuguese speakers, the [+gen] group, varied in performance with respect to the grammatical gender feature. That is, by comparison with native Spanish speakers, the [-gen] group performed less satisfactorily than the [+gen]. The difference is, thus, assumed to be due to the absence and presence of the said feature in the participants' L1s.

### **Plurality in English and Thai**

This section discusses plurality in English and Thai.

#### ***English Plurality:***

Chierchia (as cited in Lardiere, 2009) proposes the Nominal Mapping Parameter which indicates that English has the feature of a noun phrase (NP) [+arg, +pred]. That is, [+arg] or argumental setting refers to the possibility of bare NP arguments, i.e., mass nouns like 'furniture' and plural nouns like 'chairs' which can stand alone, and the [+pred] or predicative setting makes reference to the use of plural marking like '-s' and the distinction between count/ mass nouns like 'ring(s) vs. jewelry' without the use of classifiers.

The common plural marking in English is the plural '-s' which is used with countable nouns such as 'dogs'. The English plural morpheme '-s' can become '-es'

when nouns end with sibilants or the sounds (/s/, /z/, /ʃ/, /tʃ/, /ʒ/, /dʒ/) (Davenport & Hannahs, 2010) as in ‘buses’ and ‘oranges’, or ‘-ies’ as in ‘countries’. There are also other rules and exceptions related to the plural marking in English which are beyond the scope of the study. Furthermore, the English plural morpheme ‘-s’ has to be exploited when it appears in obligatory plural contexts (Jia, 2003). For instance, when countable nouns occur after linguistic cues such as cardinal numbers like ‘two’ or ‘three’ and quantifiers like ‘few’ or ‘many’, the English plural morpheme must be attached to those count nouns. Aside from the linguistic cues, there are contextual cues where explicit measure words such as cardinal numbers are not available, for example, in front of countable nouns. Thus, the plural marking has to be interpreted by employing the sentential or the discourse contexts.

### ***Thai Plurality:***

Thai nouns have no form identifying plurality, and there are no plural suffixes like the plural ‘-s’ in Thai (Lekawatana, Littell, Scovel and Spencer, 1969). While English selects the [+plural] feature, Thai does not. That is, Thai is a numeral classifier language as are Chinese and Japanese (Yamashita, 2011); that is, it indicates the ‘more-than-one’ aspect through numeral classifiers (CLS) (Iwasaki & Ingkaphirom, 2005). Classifiers in these languages mentioned are used to quantify people, objects, and so on. Moreover, numeral classifiers are commonly found in languages without obligatory plural contexts (Iwasaki & Ingkaphirom, 2005). For example, in Thai, classifiers cannot be omitted in a counting context (Nomoto, 2013). Clark and Nikitina (2009) point out that the occurrence of languages that do not have the plurality system or do not mark plural on nouns is at 9%. These languages instead mark, represent, or signal plurality elsewhere. Certainly Thai has a possible plural marker like cardinal numbers, but its system in terms of pluralized nouns does not select the [+plural] feature by means of plural marking. In actuality, Thai indicates the ‘more-than-one’ aspect through a common pattern which, according to Iwasaki and Ingkaphirom (2005), is Head noun + [Number + Classifier (CL)].<sup>1</sup> An example is shown below.

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<sup>1</sup> There is another way to signal plurality in Thai, that is, reduplication (Iwasaki & Ingkaphirom, 2005). However, nouns that can be reduplicated are limited. For example, the noun ‘children’ in English can be pluralized in Thai by reduplicating the noun ‘dèk’ (child) twice, thus becoming

- (1)      thoorasàp [sǎam khrǎaŋ]  
          telephone three CL  
          ‘Three telephones’

(Iwasaki & Ingkaphirom, 2005, p. 62)

In (1), the head noun ‘thoorasàp’ (‘telephone’) is followed by the cardinal number ‘sǎam’ or ‘three’ and then by the classifier ‘khrǎaŋ’. Unlike in English where the number appears before the head noun, the cardinal number in Thai instead appears after it.

Additionally, Greenberg (1972) shows that, in Thai, some nouns appear as their own classifiers. That is, the same word can function as both noun and classifier, thereby occurring twice in one noun phrase. For instance, the noun ‘khon’ (person/human) in Thai can be expressed as ‘khon sǎoŋ khon’ (two people) where the first ‘khon’ is a noun but the second ‘khon’ is a classifier.

If following the Nominal Mapping Parameter above, Thai has the same nominal mapping parameter as Chinese and Japanese, that is, having the feature [+arg, -pred] (Chierchia, 1997). Chierchia (1997) proposes that languages selecting the feature [+arg, -pred] of NP allow bare arguments, lack plural morphology, do not combine numbers directly with nouns, and are classifier languages. To illustrate, Thai lacks plural markers of any kind, allows the noun ‘rót’ (‘car’) to stand alone, does not normally use or accept the ‘number + noun’ structure to denote plurality like ‘\*sǎam rót’<sup>2</sup> or ‘three cars’ in English, and always uses numbers after nouns such as ‘rót sǎam’ plus a classifier which often varies from noun to noun, thereby becoming ‘rót sǎam khan’ or ‘three cars’.

Besides the difference of the parameter settings between the two languages, Thai requires a classifier to minimize vagueness resulting from a number interpretation. Piriyawiboon (2010) illustrates this point by providing the following readings of a bare noun in Thai without a classifier and with a number before a classifier, respectively.

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<sup>2</sup> Even though Thai does not normally allow ‘number + noun’ like ‘sǎam rót’, there are some exceptions such as ‘sǎam nùm’ (three young men) or ‘sǎam sǎaw’ (three young women) in actual use of the language.

- (2)      nũu khâw maa nai bâan  
         rat enter come in house  
         ‘The/a rat(s) came in the house.’

(Piriyawiboon, 2010, p.6)

- (3)      chãn hẽn nũu sãam tua nai bâan  
         I see rat three CL in house  
         ‘I saw three rats in the house.’

(Piriyawiboon, 2010, p.6)

In (2), the bare noun ‘rat’ in Thai is vague as far as the number of rats is concerned while in (3) the noun ‘rat’ is quantified with the number three ‘sãam’ and the classifier ‘tua’ giving a clear number interpretation.

### ***Obligatory Plural Contexts:***

The idea of obligatory plural contexts was adopted from Jia (2003). It refers to the contexts where plural morphemes are required. There were three obligatory plural contexts for the English plural morpheme consisting of two cues, linguistic and contextual. The first context includes the linguistic cues, namely (a) determiners or quantifiers like ‘both’ and ‘many’, (b) cardinal numbers such as ‘five’ and ‘nine’, and (c) plural demonstrative adjectives, such as ‘these’ and ‘those’. As for the contextual cues, they refer to the sentential context and the discourse context. In the sentential context, plural realization of nouns can be implied without linguistic cues.

For example, the phrases like ‘break into pieces’ or ‘use chopsticks’ when used in sentences indicate that the nouns ‘pieces’ and ‘chopsticks’ should be in plural forms to make sense. For the discourse context, it shows that a noun has to be pluralized after a previous sentence in the discourse indicates the ‘more-than-one’ aspect of that noun. For example, the noun ‘stepsisters’ in “her stepsisters were jealous of her beauty” has to be marked with the English plural morpheme ‘-s’ after the previous sentence shows that Cinderella’s stepmother has two evil daughters (Jia, 2003, p. 1301).

It should be noted that, in this study, the three obligatory plural contexts restricted only nouns that take the English plural ‘-s’ and its variants ‘-es’ or ‘-ies’ to be recognized and produced in the two tests. Other clues for plural marking such as some forms of the verb to be (‘are’, ‘were’) or verb to have (‘have’) were purposely excluded



from the test items in order for the participants not to guess the plural marking of the nouns under consideration.

***Previous Studies Related to L2 English Plural Morpheme Acquisition:***

Studies on acquisition of functional morphemes by native English speakers have been prevalent. They have shown that the English native speakers can fully acquire the English plural morpheme in obligatory plural contexts around the age of three (Jia, 2003). For L2 learners of English, there have not been many studies specifically identifying the acquisition of the English plural morpheme, especially among L1s that do not select the [+plural] feature. Still, there are some studies that are worth mentioning, as shown below.

Jia (2003) investigated L2 acquisition of the English plural morpheme by 10 native Mandarin children (five boys and five girls) who immigrated to America. Their age range was from 5 to 16. The duration of L2 English plural morpheme acquisition of the subjects was over the course of five years. Two tasks were employed to test the subjects' production of the English plural morpheme: a picture description (an elicitation task) and a spontaneous speech task. The results revealed that, as opposed to native English speaking children, seven out of ten native Chinese counterparts had a full mastery of the English plural morpheme system within five years.

In the beginning, however, variable production of the L2 English plural morpheme occurred but decreased gradually. Moreover, the omission of the English plural morphology was frequently found, together with overgeneralization in singular or mass nouns. Age of arrival in the United States was a likely impact on L2 English plural morpheme acquisition by the subjects. That is, the older children performed well on the picture description task, while the younger children tended to do well on the spontaneous oral production task and therefore follow the acquisition of the English plural morpheme by native English speakers.

The rationale for the older children's better performance on the elicitation task was that they developed higher metacognitive skills to deal with the task than those of younger children. On the other hand, the reason why the younger children performed better on the production task was ascribed to the fact that they commenced their English

acquisition early on and were then exposed to richer English-oriented environments than the adolescents who were likely to be dominated by their L1 and weakened by increasing maturational constraints.

Widiatmoko (2008) examined the acquisition of grammatical morphemes by a Vietnamese learner of English. In Vietnamese, there is no suffix indicating plural. Plurality is instead indicated by words. Data was taken from an audio recording of a 28-year-old Vietnamese EFL learner of English who had been studying English at the fundamental level for three months at a language center in Manila, Philippines. The results showed that the learner entirely omitted the English plural ‘-s’ and the third person singular ‘-s’ from her spoken language samples, whereas the copula ‘be’, the progressive ‘-ing’, and the irregular past forms were marked more frequently. The reason behind this result was probably that there is no inflectional marking of plurality or numbers in Vietnamese.

In the Thai context, few studies have focused exclusively on the acquisition of the English plural morpheme. Still, there have been morpheme order studies on this issue. For example, Sridhanyarat and Chaengchenkit (2013) suggested that their high proficiency university learners were able to acquire the English plural morpheme, among the other three functional morphemes (the present progressive ‘-ing’, third person singular ‘-s’, and possessive ‘-s’). The English plural morpheme was ranked the first in a translation task and the second in a grammaticality judgment task according to the mean scores.

As for the present study, it aims to bridge a gap in the research works related to the acquisition of the English plural morpheme in the Thai context with an application of the Failed Functional Features Hypothesis, whereby grammatical or functional features not instantiated in learners’ L1 are unresettable in second language acquisition and with creation of obligatory plural contexts adopted from Jia (2003), to test L1 Thai learners with an 80% criterion for acquisition (Dulay & Burt, 1974; Slabakova, 2006) of the English plural morpheme.

## **Hypothesis**

The hypothesis is as follows:

Because the [+plural] feature is non-existent in Thai, L1 Thai learners' representation of L2 English plural morpheme is impaired irrespective of English proficiency levels. The local impairment subsumed under the FFFH can thus account for variable production of L2 English plural morpheme, and the MSIH is confounded.

## **Objectives of the Study**

The present study sets out to investigate the acquisition of English regular plural marking/ morpheme by L1 Thai learners of English and to demonstrate that variable production of the said feature is caused by the non-target-like syntactic representation (FFFH), not by the target-like syntactic representation (MSIH).

## **Methodology**

This section describes the participants, the research instruments, and data collection involved in the study.

### ***Participants:***

The eleventh graders from Chomsurang Upatham School, Ayutthaya, Thailand were recruited to participate in the current study. They were selected from two classes and were then divided into two proficiency groups. The high proficiency group ( $n = 10$ ) came from the special program in English and mathematics, while the low proficiency group ( $n = 10$ ) was from the regular program. The students in the high proficiency group had already passed examinations in their school subjects including English and achieved certain scores to be eligible for the special class. Thus, it was assumed that their English proficiency was higher than that of the students from the regular class. The students from the special program had received more intensive English instruction since the tenth grade. Their amount of time learning English in a classroom setting was approximately 10 years. The students' primary language is Thai. Their age range was around 16-17.

### ***Research Instruments:***

There were two research instruments in this present study, i.e., a grammaticality judgment task (GJT) and a cloze test.

### **Grammaticality Judgment Test (GJT)**

The GJT was selected to test the learners' underlying representation of the English plural morpheme. The total number of test items was 40 divided into 18 target items and 22 distracters. The 18 target items were further separated into three obligatory plural contexts consisting of one linguistic cue and two contextual cues. In each context, there were three grammatical and three ungrammatical test items.

The nouns under study in the GJT were drawn from the sixth grade and the ninth grade vocabulary lists provided by the National Institute for Educational Testing Service (NIETS) in Thailand. They are all countable nouns in English and are pluralized by adding either the English plural '-s', or other variants like '-es' or '-ies'. The nouns used in each context are shown in Table 1.

**Table 1** The distribution of the nouns used in the GJT

<b>Obligatory plural context</b>	<b>Nouns in grammatical items</b>	<b>Nouns in ungrammatical items</b>
Linguistic	earring, lifeguard, language	gorilla, handkerchief, kingdom
Sentential	sock, cherry, bubble	crayon, statue, bracelet
Discourse	employee, passenger, weapon	daughter, stepmother, disaster

The test items were not placed next to each other if they were from the same context or cue. Some examples of the test items are provided below.

- (4) .....Polyglots are those who can speak many languages fluently.
- (5) .....The statue I have collected over the years will be put in this yard tomorrow.
- (6) .....Hana's mother died last month, so her father had two new wives. Her new stepmother, however, really loved her and took good care of her.

The participants were asked to mark ✓ in the space given if a test item was grammatical, or mark ✗ if a test item was ungrammatical. If they judged it

ungrammatical, the students had to provide a correct version above that incorrect underlined part. In case the students could not make a correction, they would not receive any points.

With regard to the scoring, one point was given for each item. The highest score for each context was 60. The maximum score for this test was 180 (See the GJT in Appendix A).

### **Cloze Test**

The cloze test was chosen as a production task and was made up of nine test items and 11 distracters. Of the nine items, there were three test items pertaining to the English plural morpheme in each obligatory plural context. The nouns used in this test are displayed in Table 2 below, all of which were also drawn from the NIETS basic vocabulary words that sixth graders and ninth graders should know. They take the English plural ‘-s’ and its variants like ‘-es’ or ‘-ies’ when pluralized.

**Table 2** The distribution of the nouns used in the cloze test

<b>Obligatory plural context</b>	<b>Nouns</b>
Linguistic	vacancy, footprint, guest
Sentential	prize, tomb, questionnaire
Discourse	bird, ostrich, accident

The test items of the same context were not arranged next to each other. Some of the test items are shown below.

- (7) I was surprised that only five.....(guest) showed up at his party.
- (8) The.....(tomb) of powerful warriors in our country had been dug by the archeologists.
- (9) My dog caught a few unfortunate sparrows last week. So, I decided to keep the.....(bird) in the cage.

The participants were asked to fill in the blank with the word given in parentheses. Meanwhile, they had to choose whether to alter that word to its grammatical form or not.

In terms of the scoring, the participants would receive one point as long as they produced the nouns under investigation with the English plural ‘-s’. The highest score for each obligatory plural context was 30. The maximum score for this test was 90 (See the cloze test in Appendix B).

***Data Collection:***

The two tasks were administered to the students in class. The students were given 20 minutes to do each task. The researcher gave the test directions in Thai and showed the students how to do the tests. The students were asked to immediately submit the two tests to the researcher after finishing them. They were also told not to use any dictionaries during the tests.

***Prediction:***

Based on the hypothesis mentioned, the FFFH predicts that, because the plural morpheme is not specified in the L1 Thai, variability of English plural morphology on the reception test (GJT) and the production test (cloze test) would occur.

**Results and Discussion**

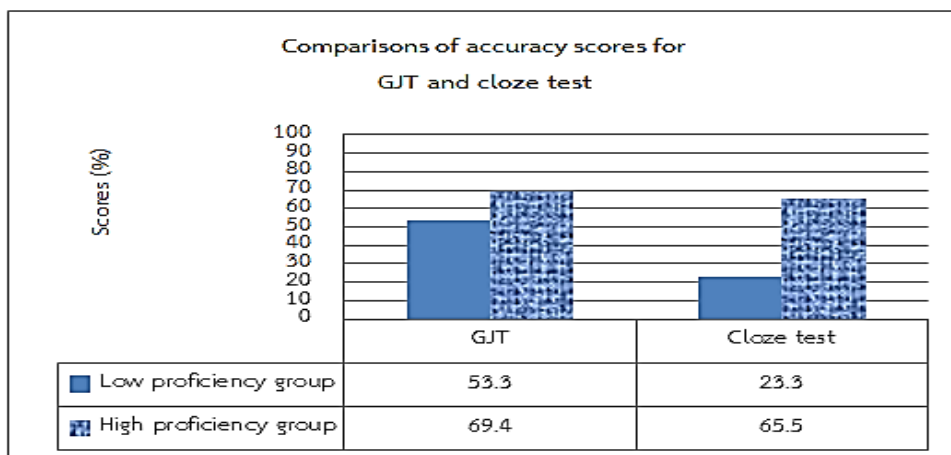
Table 3 below illustrates the overall results obtained from the GJT and the cloze test and figure 1 below shows the overall accuracy scores of the two tests.

**Table 3** Accuracy scores on plural marking in the GJT and the cloze test by the L1 Thai low proficiency group compared to the L1 Thai high proficiency group

Proficiency level	GJT		Cloze test	
	Scores	%	Scores	%
Low	96/180	53.3	21/90	23.3
High	125/180	69.4	59/90	65.5

According to Table 3 and Figure 1, the low proficiency group scored lower than the high proficiency group at the percentage of 53.3 against 69.4 on the GJT and of 23.3 against 65.5 on the cloze test respectively. Even though the high proficiency learners’ accuracy scores were higher than those of the low proficiency counterparts, their scores

were still at low rates. The accuracy scores even in the high proficiency group could not reach the 80% criterion for acquisition (Dulay & Burt, 1974; Slabakova, 2006). The overall findings suggested that the learners could not fully and consistently activate and then supply the English plural morpheme, which does not exist in their native language.



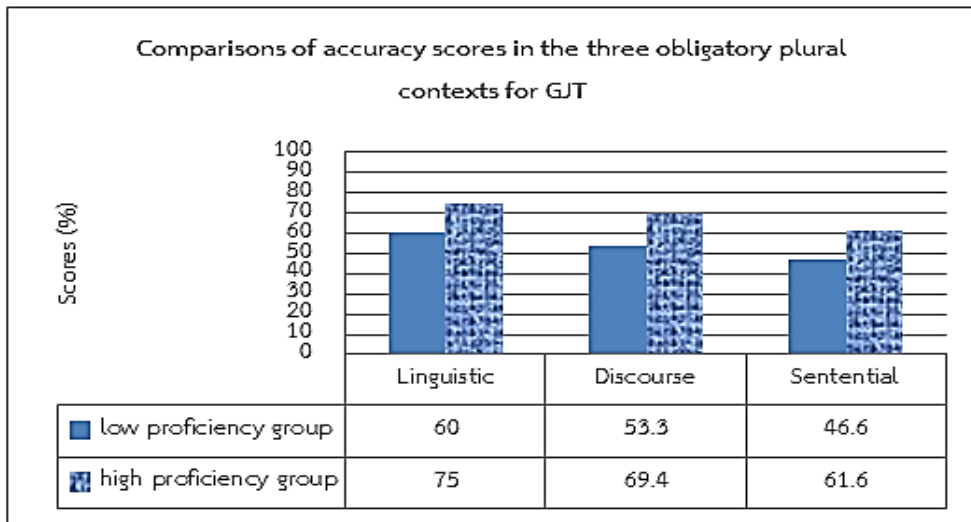
**Figure 1** Accuracy scores on plural marking in the GJT and the cloze test by the L1 Thai low proficiency group compared to the L1 Thai high proficiency group

In order to get comprehensive pictures regarding the acquisition of the English plural morpheme, the scores for the GJT and the cloze test were broken down by the three obligatory plural contexts. The accuracy scores on the three obligatory plural contexts for the GJT are shown in Table 4 below.

**Table 4** Accuracy scores on plural marking in each obligatory plural context for the GJT by the L1 Thai low proficiency group compared to the L1 Thai high proficiency group

Proficiency level	GJT					
	Obligatory plural context					
	Linguistic		Sentential		Discourse	
	Scores	%	Scores	%	Scores	%
Low	36/60	60	28/60	46.6	32/60	53.3
High	45/60	75	37/60	61.6	43/60	69.4

The low proficiency group's accuracy scores on the English plural marking stood at 60% when linguistic cues were present, at 46.6% when linguistic cues were absent in the sentential context, and at 53.3% when in the discourse context. By contrast, the high proficiency group scored higher with 75% in the context where linguistic cues were present, 61.6% in the sentential context, and 69.4% in the discourse context. The accuracy scores on each obligatory plural context are presented according to the accuracy scores in Figure 2.



**Figure 2** Accuracy scores on plural marking in each obligatory plural context for the GJT by the L1 Thai low proficiency group compared to the L1 Thai high proficiency group

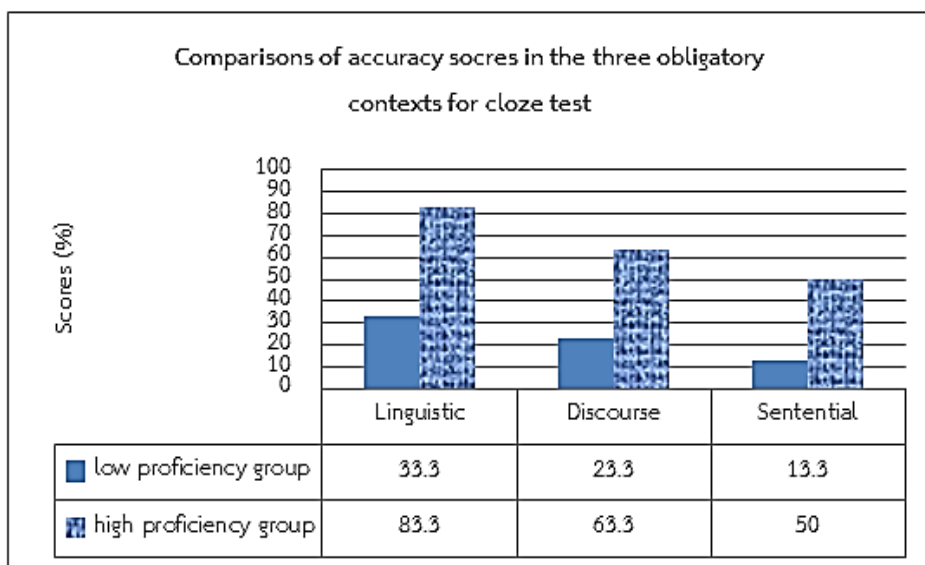
Figure 2 shows that the accuracy scores on the three obligatory plural contexts increased with respect to the proficiency levels. Still, the accuracy scores even in the high proficiency group could not meet the 80% criterion for acquisition (Dulay & Burt, 1974; Slabakova, 2006). Moreover, both low and high proficiency students' performance seemed to be variable across the three obligatory plural contexts. As for the cloze test, its accuracy scores are shown in Table 5.



**Table 5** Accuracy scores on plural marking in each obligatory plural context for the cloze test by the L1 Thai low proficiency group compared to the L1 Thai high proficiency group

Proficiency level	Cloze test					
	Obligatory plural context					
	Linguistic		Sentential		Discourse	
	Scores	%	Scores	%	Scores	%
Low	10/30	33.3	4/30	13.3	7/30	23.3
High	25/30	83.3	15/30	50	19/30	63.3

The low proficiency group's accuracy scores in this production task were at 33.3% in the context where linguistic cues were present, 13.3% in the sentential context, and 23.3% in the discourse context. On the contrary, the high proficiency group performed much better in the three obligatory plural contexts, that is, 83.3% in the context containing linguistic cues, 50% in the sentential context, and 63.3% in the discourse context. The results from the cloze test are presented according to the accuracy scores in Figure 3 below.



**Figure 3** Accuracy scores on plural marking in each obligatory plural context for the cloze test by the L1 Thai low proficiency group compared to the L1 Thai high proficiency group

As previously shown, with increasing proficiency, the learners were able to mark the English plural ‘-s’ frequently. Nonetheless, they tended not to omit it only in the presence of linguistic cues.

To elaborate on the results obtained, the L1 Thai learners in this present study were inclined to predominantly mark the English plural ‘-s’ in the presence of linguistic cues, namely cardinal numbers, quantifiers, and plural demonstrative adjectives in both tasks compared to the discourse context where cues are present elsewhere in discourse and the sentential context where cues are not available. It is likely that when the linguistic cues for plurality were absent, the students were less certain whether to mark the English plural morpheme ‘-s’. To illustrate the aforementioned points, the following three test items of each context (linguistic, discourse, and sentential contexts, respectively) in the cloze test are given below.

- (10) I was surprised that only five.....(guest) showed up at his party.
- (11) My dog caught a few unfortunate sparrows last week. So, I decided to keep the.....(bird) in the cage.
- (12) The.....(tomb) of powerful warriors in our country had been dug by the archeologists.

It can be clearly seen that, in (10), the noun ‘guest’ has to be pluralized because it is immediately preceded by the cardinal number ‘five’. The students may thus find the nouns in the linguistic context easier to trigger the concept of plurality. Compared to the linguistic context, the discourse context ranked the second in both GJT and cloze test. This may be due to the fact that, in the discourse context, the existence of some linguistic cues such as ‘a few’ or ‘sparrows’ in (11) is still established, albeit in the previous sentence. The students could thus, to some extent, pluralize the noun ‘bird’.

Among the three contexts, it was the sentential context where the learners omitted the English plural marker the most. The reason behind this phenomenon is possibly due to the absence of linguistic cues either in a preceding position of a noun or in previous discourse. The students might not have figured out that the noun ‘tomb’ in (12) needs to be pluralized for the fact that there should be more than one tomb for many warriors buried in the ground. Therefore, asymmetric suppliance rates of the English plural morpheme ‘-s’ in the three obligatory plural contexts were observed.

As exemplified above, it can be generalized that, based on the results, the L1 Thai learners were more likely to pluralize nouns in the obligatory plural contexts, especially when some linguistic cues indicating plurality were present. Nonetheless, in the absence of linguistic cues, the learners were less likely to pluralize nouns.

This asymmetry of plural marking suppliance rates also lends support to the FFFH rather than the MSIH. This is because, if the MSIH had been correct, whether linguistic cues were present or not should not have exerted any influence on marking the English plural morphology. Variability concerning the presence of linguistic cues in the GJT and the cloze test could potentially undermine the validity of the MSIH. Additionally, if the problem had occurred at the morphophonological level, variable production of the English plural morpheme should have been found in all the obligatory plural contexts according to the MSIH. However, the results showed the asymmetric rate of suppliance of the English plural morpheme depending on whether or not linguistic cues were present.

There might be a pertinent question posed by the proponents of the MSIH. That is, if the plural morphology was non-existent in Thai or absent in the learners' mental grammars, the presence of linguistic cues should not influence the ability to mark plural nouns. This very question might be argued by an explanation suggesting that the learners may look for some linguistic cues to represent the English plural aspect in their minds. This is probably because the presence of cardinal numbers such as 'two' and 'five' or quantifiers like 'many' unambiguously determines plurality (Birdsong & Flege, 2001).

This phenomenon was borne out by other research findings. For instance, Hong Kong English speakers were subject to pluralize nouns, particularly when some pre-nominal elements, namely numerals (except for one) and plural demonstratives were present (Carol, 1989). Linguistic cues are, first and foremost, a requirement for plurality (Cazden, 1968). Put differently, they make plurality particularly vivid for the learners.

Under the non-target-like syntactic representations or the FFFH, the question why the learners can judge the English plural morphology with the presence of some linguistic cues such as cardinal numbers and quantifiers can be answered. That is to say, the learners may call upon or resort to cognitive strategies or metalinguistic rules developed through years of learning English to compensate for their underspecified syntactic features (Franceschina, 2005; Khumdee, 2013; Pongpairroj, 2007; Trenkic,

2007), thus showing non-random plural marking, especially when linguistic cues are present. This may be the reason why the high-proficiency learners outperformed the low-proficiency counterparts in both GJT and cloze test since they tended to be more familiar with a particular strategic decision in locating plurality cues. As a result, they were able to correctly judge and produce plurality which is not syntactically triggered to a certain degree. Nevertheless, the scores of both L2 learner groups were still low.

In general, the findings lend support to the hypothesis in that the L1 Thai learners in this study could not acquire the plural morpheme which is absent in Thai. Their correct judgment and production were relatively low and did not reach the 80% criterion for acquisition (Dulay & Burt, 1974; Slabakova, 2006). Variable plural marking also was found across the three obligatory plural contexts when linguistic cues were present or absent. Hence, the results confirmed the FFFH hypothesis in that the learners showed impaired judgment in the use of the English plural ‘-s’ in their perception and tended to frequently omit it in their production.

What is more, the FFFH could account for the variable production across the three obligatory plural contexts. Since the plural morpheme does not exist in Thai, the acquisition of the English plural morpheme is assumed to be impaired. The L1 Thai learners were found not to fully and consistently activate the plural feature which is absent in their L1. Therefore, the [+plural] feature may not be available in the L2 learners’ mental representation, thereby bearing out the FFFH.

## **Conclusion**

Variable judgment and production evidenced by the results come to a conclusion that the non-existent English plural morpheme cannot be fully attained by L1 Thai learners because such a feature is not instantiated in their native language, and UG is partially available to them. The results thus support the non-target-like syntactic representation or the Failed Functional Features Hypothesis (FFFH), but falsify the target-like syntactic representation or the Missing Surface Inflection Hypothesis (MSIH).

Despite such a conclusion, the results of this study should be interpreted with a caveat. That is, owing to the small sample size, the results cannot be generalized to the wider population. However, it is hoped that the results of this study provide some useful insight into the acquisition of the English plural morpheme and also the ongoing debate

over the variability of L2 functional morphology. Future research can be conducted in a similar vein with end-state learners or advanced L2 learners of English by utilizing other kinds of tasks such as an oral production task and a picture elicitation task. It can also be carried out to compare and contrast the acquisition of the English plural morpheme by L1 learners whose native languages select the [+plural] with [-plural] feature.

This study has some pedagogical implications which are worth considering. English teachers should place more emphasis on plural nouns when they do not appear with linguistic cues. Students should also find evidence in a context as to why plural nouns are employed, what they are referring to, and whether or not a noun to be written should be pluralized. This will later minimize variability of the English plural morpheme.

### **Acknowledgements**

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## Appendix A: Grammaticality Judgment Task

**Direction:** Check the underlined part in each sentence. If you think it is correct, mark ✓ in the blank given; but if you think it is incorrect, mark × in the blank given and then provide a correct version above the incorrect underlined part.

Examples
1).....✓...Tom is waiting <u>for</u> his girlfriend outside in the snow. fast
2).....x...When he was young, Natsu always drove his car pretty <u>fastly</u> .

- .....My sister bought two pairs of earrings which cost her 1,000 baht.
- .....When water boils, bubbles rise to the surface.
- .....As the only employer at the company, I decided to hire Maria and Susan to work with me. Surprisingly, my new employeees had dated my current boyfriend before.
- .....Those lifeguards will be standing by to help a swimmer who is in danger.
- .....Polyglots are those who can speak many languages fluently.
- .....Jennifer took off her sneakers and her white socks to let her feet dry.
- .....This bus was crowded with students, workers, and sellers. However, the passengers behaved decently on the bus.
- .....Put the pot on the stove over medium-low heat, and cook the cherries until the sugar melts.
- .....The police found knives, bombs, and guns inside that house last week. The weapons will be destroyed tomorrow.
- .....The hunter often goes to the forests in Africa in order to hunt several gorilla living there.
- .....My niece was sitting at the desk with her box of crayon and coloring book spread out before her.
- .....My wife was pregnant with twin female babies. At the age of 18, our daughter went to the same university, Oxford University, to be more precise.
- .....I always stuff two handkerchief in my pocket for wiping my face and removing dirt.
- .....Hana's mother died last month, so her father had two new wives. Her new stepmother, however, really loved her and took good care of her.
- .....Sukhothai and Ayutthaya were once prosperous because these kingdom traded with other countries.
- .....The statue I have collected over the years will be put in this yard tomorrow morning.
- .....Floods, volcanic eruptions, earthquakes, and tsunamis hit many countries last year. The natural disaster mentioned also hit my city when I was young too.
- .....My girlfriend wears the gold bracelet around her feet.

Note: Appendix A includes only the test items.

## Appendix B: Cloze Test

Direction: Fill in the blank using the correct form of the word given in the parentheses.

Examples

- 1) The door of this classroom was.....*broken*.....(*break*) by the storm yesterday.
- 2) The doctor found the patient in.....*good*.....(*good*) health.

1. There will be many job.....(*vacancy*) available at the company next month.
2. The.....(*prize*) will be awarded every year to students who have got the highest scores.
3. See these.....(*footprint*) here, a policewoman said to her colleagues.
4. My dog caught a few unfortunate sparrows last week. So, I decided to keep the.....(*bird*) in the cage.
5. I was surprised that only five.....(*guest*) showed up at his party.
6. The.....(*tomb*) of powerful warriors in our country had been dug by the archeologists.
7. That guy illegally kept a couple of large flightless birds at home. Unluckily, his.....(*ostrich*) had been killed the day before. Guess what kind of animals he keeps now-- a giraffe!
8. The new teacher is distributing the.....(*questionnaire*) to the students to assess their in-class performance.
9. The newscaster reported that there had been a car crash, a plane crash, and a shipwreck last month. The.....(*accident*) had been supposed to occur because of human carelessness.

Note: Appendix B includes only the test items.

#### Biodata

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