UNIVERSITY OF SOUTHAMPTON

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Modern Languages

The L2 Acquisition of English Articles and Noun Phrases by Thai Learners

by

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ABSTRACT

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English is widely considered as one of the most significant languages which plays a vital role in a wide range of domains, including in and outside educational settings. In second language (L2) acquisition of English, however, many L2 learners encounter difficulties with certain aspects, including English noun phrases (NPs) and the English article system. In the Thai context, many Thai learners of L2 English have the persistent problems with those linguistic aspects in their English acquisition.

This research explores the acquisition of the English article system and NPs by Thai L2 learners of English who reside in Thailand and have limited L2 input exposure. 118 Thai participants, divided into three different English proficiency level groups (42 intermediate, 43 upper-intermediate and 33 advanced groups), were recruited into this study and asked to complete three tasks: the count-mass grammaticality judgment (GJ) task, the forced choice elicitation (FCE) task, and the production task (PT). The study aims at examining the Thai learners' (re)setting of parameters (i.e., the Nominal Mapping Parameter (NMP), proposed by Chierchia (1998) and the Article Choice Parameter (ACP), proposed by Ionin (2003) and Ionin et al. (2004)) to the appropriate settings for English and investigating the role of semantic universals (definiteness and specificity) and an article preference in their English article choice.

The results from the FCE and PT data show that most of the Thai participants made use of English articles more than they omitted them. It is argued that these results can reflect the learners being in the process of resetting of the NMP from the NMP setting of Thai, whose NPs have no articles, to the NMP setting of English, whose NPs have the article system. However, the statistical analysis from the GJ data reveal that only the advanced group had high ability in differentiating between English count and mass nouns at the level consistent with the control group (native English speakers). The results are interpreted that most of the Thai learners were being in the process of

resetting to the NMP setting of English, but only the advanced learners, indicating native-like ability in making a distinction between the two English noun types, could succeed in resetting their NMP to the target setting of the NMP.

In relation to the Thai learners' English article choice, the results from the FCE and PT data suggest that their L2 English article choice was affected by the semantic universal features: definiteness and specificity, indicating UG access, mainly in that fluctuation between the definiteness setting and the specificity setting of the ACP as well as the specificity article use patterns were demonstrated in their English article choice with the conflicting semantic contexts, especially [-definite, +specific] contexts. The results are interpreted that the Thai learners showed article difficulty with the specificity effects and thus that their article errors did not seem to be random. However, it was also found in the study that the Thai learners had an article preference in their choice of English articles. They indicated a preference for *the* in their English article choice. It is, thus, argued that apart from the semantic universals, an article preference which the learners had was likely to be a key factor, with which they had a tendency to connect English article choice.

Table of Contents

List of Tables

List of Figures

DECLARATION OF AUTHORSHIP

I, Harinfa Pattanapongpitak, declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

The L2 Acquisition of English articles and Noun Phrases by Thai learners

I confirm that:

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Definitions and Abbreviations

ACP	Article Choice Parameter
Adv	advanced
arg	argumental
[+def]	definite
[+definite]	definite
[-def]	indefinite
[-definite]	indefinite
FCE	Forced Choice Elicitation
FH	Fluctuation Hypothesis
GJ	Grammaticality Judgement
INT	intermediate
L1	first language
L2	second language
NMP	Nominal Mapping Parameter
NP	noun phrase
NS	native speakers
P&P	Principle and Parameters
pred	predicative
PT	Production Task
[+spec]	specific
[+specific]	specific
[-spec]	nonspecific
[-specific]	nonspecific

UG	Universal Grammar
Upp	upper-intermediate

Chapter 1: Introduction

1.1 Rationale

It cannot be denied that English is one of the most common and important languages which is acquired by second language learners (L2 learners) all over the world. In addition, it seems to be widely regarded as one of the most significant and main languages which has been typically used as the medium of instruction in a great number of classroom settings, as well as the main tool of communication or interaction between people around the world, particularly when they are from different linguistic and cultural backgrounds. In other words, it may be said that English plays an essential role both in and outside educational settings; moreover, it is used in a wide range of domains (Graddol, 1997). However, not all L2 learners are successful in their acquisition of English in that many of them experienced problems with certain aspects of learning English, including English articles.

With regard to the English article system, English articles are among the most commonly used English words (Master, 1997; Sinclair, 1991). For using English articles, for example, in communication, article misuse by speakers may occasionally lead to misunderstanding and a communication breakdown (Yoshii and Milne, 1998). However, even being important linguistic features to some extent, the article system in English is the function words or grammatical features which seem relatively hard for a number of L2 learners to succeed in acquiring. This notion could be supported by Butler (2002), who points out that errors in the use of English articles are an error type which a great number of L2 learners commit most frequently.

In the Thai context, even though many Thai learners of L2 English started to study English, for example, English grammatical structures and features, including English articles and noun phrases (NPs), when they were relatively young, it seems that a number of them could not achieve complete success in acquiring the language, especially its article system. The findings in many studies (e.g., Hawkins et al., 2006; Ionin et al., 2004; Lardiere, 2004; White, 2003) revealed that a number of L2 learners, including Thai learners, as demonstrated in Winward's (2012) study, for instance, have difficulty in acquiring the English article system. As a teacher of English as a Foreign Language (EFL), the researcher has been aware that one of the most challenging English L2 grammars for many Thai learners is English NPs. In particular, the appropriate use of English articles in NPs or determiner phrases (DPs) was difficult for them to achieve. Master (1997) points out that L2 learners, including ones with more advanced English proficiency levels, typically have difficulty in using an accurate English article. In the Thai context, this linguistic problem could be

clearly asserted by Tan, (2005) and Noojan (1999). Both of the researchers found that most Thai learners have problems with the use of English articles. Essentially, the results in Noojan's study revealed that incorrect use of English articles was one of the most frequent top five error types committed by Thai learners.

These article errors also occur in writing. Some research into L2 English writing in the Thai context (e.g., Abdulsata's, 2000; Sattayatham and Honsa's, 2007) discovered that Thai learners made a number of article errors, particularly in their English writing. That is, in the study carried out by Abdulsata, it was found that inaccurate use of articles was one of the most frequent errors produced substantially in Thai learners' writing in English. Similarly, Sattayakham and Honsa, who studied English writing by Thai medical learners of English, also found that using articles inappropriately were the most frequent errors occurring in their English writing. Apart from in the Thai context, this linguistic phenomenon has also been indicated in the investigations of errors in the L2 English writing in other L1 contexts. Bitchener, Young, and Cameron (2005), for instance, notes that article errors were one of the most frequently occurring error types in their research on L2 English learners' writing from a range of L1 backgrounds.

Considering the above discussion related to the role of English NPs and the article system in English, it could possibly be concluded that these areas are vitally important and should not be ignored. More specifically, English NPs, especially English article use in NPs should be paid attention to, particularly in Thai learners' English acquisition mainly due to the persistent difficulties which Thai learners have with these grammatical structures.

To summarise from the above, it is a challenging task for L2 learners to achieve accurate use of English article system (Hawkins et al. (2006); White, 2009) and to succeed in acquiring English NPs. This is also the case for many Thai learners of English as a foreign language (EFL).

The Nominal Mapping Parameter (NMP) by Chierchia (1998), a UG-based theory, is a parameter closely linked with NPs in languages. The characteristics of NPs in languages can be clearly described based on the NMP since in this parameter, the languages are significantly classified into three types on the basis of the type of NPs, taking features: '[+/-arg]' (being or not being mass-like and kind-denoting expressions) 'and [+/-pred]' (needing or not needing to co-occur with a determiner) to constrain the way in which the NPs 'are mapped into their interpretations' (p. 353). Based on the NMP, when comparing Thai NPs with English NPs, the former is commonly argumental and has the [+arg, -pred] setting of the NMP, in which NPs are primarily mass/kind-denoting expressions without a mass-count distinction and plural marking, as well as without articles. Instead, the latter can be either argumental or predicative and, thus, has the [+arg, +pred] setting of the NMP. This means that English NPs can be either bare nouns (i.e., mass nouns

and bare plurals) or count nouns, licensed by a determiner (i.e., count singular nouns and definite count plurals), so they have a mass-count distinction, plural marking, and articles. As can be seen, the characteristics of Thai NPs and those of English NPs considerably differ.

In this sense, as for the article system, it could be assumed that one of the most essential reasons why Thai learners find the English article system difficult to master may be due to the fact that Thai is regarded as a classifier language which lacks the article system (Tan, 2005); that is, Thai is an article-less language. Such a linguistic aspect may be why many Thai learners have a lack of the concept of articles and, thus, may result in errors in their usage of English articles. In other words, the lack of articles, and, thus, the absence of the concept of articles in their first language (L1) are probably the main reason that gives rise to Thai learners' difficulty with English article use. Moreover, the English article system tends to be confusing and complicated for certain L2 learners (White, 2009), including Thai learners (Taesungneon, 2012) since it is necessary for the learners to consider many aspects such as countability, number, and definiteness of a noun phrase in their choices of articles, as Celce-Murcia and Larsen-Freeman (1999) propose.

To emphasise, unlike English NPs, Thai NPs occasionally need a classifier and, as have been noted, have no plural morphological inflection and no articles (Laisatrukrai, 1999; Singnoi, 2008; Smyth, 2002, Yates and Tryon, 1970, p. 22). Whereas the concepts of definiteness, countability, and number are overtly marked in English NPs, they are not in Thai NPs (Luksaneeyanawin, 2005). Thai NPs have certain ways of denoting definiteness, specificity, and plurality which differ from in English. These features are primarily expressed through the classifier system (Piriyawiboon, 2010; Singnoi, 2008; Winward, 2012). For instance, the way of indicating definiteness, one of the semantic features which play an important role in determining article choice (Ionin 2003; Ionin et al. 2004; Ko et al. 2006), in the Thai language differ from those in English, as noted by Thonglor (2002). To illustrate, Thai indicates definiteness by using demonstratives such as níi ('this'), nán ('that'), and nóon ('that over there'), which usually co-occur with a classifier in the construction "Noun + Classifier + Demonstrative", as can be seen in the example from Smyth (2002, p. 35) below.

(1) lûuk khon níi [+definite]

child classifier this

'this child'

The NP in the above example is [+definite] through using demonstratives, together with classifiers.

As to plurality, a crucial feature closely related to NPs, a means of indicating this grammatical feature in a Thai NP is also different from that in an English one. For example, Thai can indicate plurality of a NP by using numerals which may be, for instance, the numeral *sɔ̌ɔŋ* ('two') or more or quantifiers such as *baaŋ* ('some') and *lǎay* ('several'), together with a classifier, in the NP in the construction "Noun + Numeral + Classifier" and "Noun + Quantifier + Classifier", respectively, as pointed out by Smyth (2002). An example adapted from Singnoi (2008, p. 84) is provided below.

(2) khâaw sɔ̌ɔŋ caan

rice two classifier

'two plates of rice'

As can be seen in the above example, Thai is different from English in that it uses a classifier such as *caan*, which is used for counting rice, when a Thai noun is counted. This aspect of Thai NPs will be explained in more detail in the next chapter.

The differences as such between English and Thai, discussed above, are likely to be the key reasons for many Thai learners to have problems learning the English grammatical structures (i.e., NPs and, particularly, articles) and to produce errors in using English articles committed by the learners. This could be supported by Sattayatham and Honsa (2007). They state that when grammatical rules in one language are not equivalent to those in another language, the different grammatical rules may create grammatical errors.

For English articles, whose definites mark definiteness, not specificity, additionally, this study will be based on the Article Choice Parameter (ACP) and the Fluctuation Hypothesis (FH), proposed by Ionin (2003) and Ionin et al. (2004) to examine L2 English article acquisition by Thai learners. This is mainly because these theories 'specifically attend to the problem of learning the article system' (Momenzade et al., 2014, p.30) as well as provide the predictions, directly linked to the article choice in L2 English by learners whose L1 lacks an article system, where definiteness, involving the speaker's and the hearer's knowledge or presuppositions of existence and uniqueness of a referent, and specificity, involving the speaker's knowledge of 'a uniquely salient discourse referent', or more precisely, to his or her intention to refer to refer to the referent 'regardless of the hearer's knowledge status' (Ko et al., 2008, p.119), are closely involved.

In the context of English teaching and learning, one of the key issues which has been addressed and paid attention to by researchers (e.g., Jin, 2003; Snape et al., 2006; Trademan, 2002; Zdorenko and Paradis, 2008) is the acquisition of articles in L2 English. Even though there is some research on this linguistic phenomenon in L2 learners from other languages with no articles, for

instance, Japanese (Hawkins et al., 2006; Snape, 2006), Korean (Kim and Lakshmanan, 2008; Ko et al.,2009), and Chinese (Yang and Ionin, 2009; Zdorenko and Paradis, 2008), by virtue of Thai as an article-less language, data from Thai learners can lead to vital information which can shed more light on L2 English articles acquisition by speakers of an article-less language and to better understanding of the issue, in particular, in terms of the L2 learners with limited input exposure which seem to be needed.

In the Thai context , it, moreover, appears that there still have been few research studies (e.g., Pongpairoj, 2008; Taesungnoen, 2012; Winward, 2012) which focus on the area connected with the acquisition of English articles and, especially, NPs. More importantly, it may be said that Universal Grammar (UG) appears to be a novel and well-developed approach (Braidi, 1999); linguistic interfaces, including syntax-semantics/pragmatics interfaces, are the linguistic concepts, which have been recently developed and applied to L2 acquisition research and which are closely related to article acquisition. Even so, it is rarely adopted for research into Thai learners' English article acquisition or rarely applied to explain the linguistic problem, and, vitally, no studies adopt such a novel approach for the investigation of Thai learners' English NP acquisition. As for English article acquisition by Thai learners, there are only two studies, which are those by Pongpairoj (2008) and Winward (2012) investigating and explaining the English article issue through the role of semantic features: definiteness and specificity. However, the findings in these studies seem to be able to explain or be applied to this linguistic problem of common Thai learners only to a limited degree. Primarily in the sense that both research studies were conducted to look at the acquisition of L2 English articles only by Thai learners who were students from an international or English programme and, hence, who had high exposure to English, since it was used as the main medium of instruction. Besides, most Thai subjects in the two studies were those, who had stayed and studied for a significant period of time in a native English speaking country as part of their programme requirement. Conversely, usual Thai learners or most Thai learners are those who study their disciplines in an ordinary programme, where Thai is used as the main medium of instruction and, then, where Thai learners are exposed to English to a low degree. Therefore, the results from these studies have their limitations, for instance, they are unlikely to be able to generalise about the Thai learners in general concerning their English article acquisition. Consequently, the research into the issue relating to English article acquisition by Thai learners, who study their discipline subjects in the teaching and learning context, similar to Thai learners in general, is needed to be conducted mainly to lead to more understanding of the underlying reasons for common Thai article problems, which is a persistent difficulty. Moreover, the present study looks at Thai learners with lower levels of English exposure in instructional settings to see whether there will be different or similar English article use patterns to those found in other

studies (i.e., Pongpairoj, 2008 and Winward, 2012), which also investigated this issue on Thai learners, but whose Thai subjects were different from this study as they were highly exposed to English. This is because it is possible that their English article use patterns might be different as a result of their different levels of L2 input exposure or that though the learners were those with high or low exposure to English or in the different contexts of a very or not very frequent structure (articles), their article patterns might not be different. In case of the similar patterns, for instance, when using English articles, the learners with different input exposure levels possibly show the same article accuracy and/or error patterns such as correctly or incorrectly using English articles in the similar semantic contexts.

Also, this study maybe challenge the FH and, more crucially, can, then, help to better understand the issues in the L2 acquisition field through UG, including the role of semantic universals (i.e., definiteness and specificity) in L2 article use by L2 learners who lack an article system in their L1s, along with the role of an article preference which is probably a specific strategy of their English article use. Specifically, as previously mentioned, although there is some research on the effect of semantic universal features on L2 English article choice in other settings, given that Thai is an article-less language, data from Thai learners of L2 English can undeniably entail useful information which can shed more light on the L2 acquisition of English articles by speakers of an article-less language, especially with low levels of input exposure. More importantly, there seems to be a lack of research into the role of an article preference in L2 leaner article choice across different semantic contexts.

In summary, based on the research background discussed above, it is, accordingly, interesting and beneficial to undertake the research to study the acquisition of the English article system and NPs by L2 learners of English in the Thai context by adopting a UG framework to look at the L2 learners' (re)setting of parameters, namely the Nominal Mapping Parameter (NMP), proposed by Chierchia (1998) and the Article Choice Parameter (ACP), proposed by Ionin (2003) and Ionin et al., (2004), as well as to examine Ionin's and Ionin et al.'s the Fluctuation Hypothesis (FH). Applying the robust linguistic theoretical notions in the current research helps to provide the vital opportunity to understand what Thai learners of English do with English articles and NPs, and to give valuable insights into whether the problem with English articles significantly reflects the role of the semantic features (i.e., definiteness and specificity) and/or a certain strategy of using an English article (i.e., an article preference). In other words, this study was conducted in order to obtain more insights into L2 acquisition of English noun phases, especially about resetting the Nominal Mapping Parameter of L2 learners to the target L2 parameter setting (i.e., English setting in this study), and English articles, particularly about the role of semantic universals, together with

an article preference, in L2 article use by the learners who lack article system and overt count-mass distinctions in their L1 and who have limited L2 input exposure.

1.2 Aims and objectives of the study

This research aims at studying the Thai learners' acquisition of L2 English NPs and articles to investigate their resetting of the Nominal Mapping Parameter (NMP) to the English setting and their English article choice or, more specifically, their errors and their accuracy in the use of English articles. The current study is in an attempt to gain a deeper understanding of what Thai learners of English do with English NPs and articles and the role of semantic features of the definiteness and specificity in their article choice in English. Additionally, it is aimed to test Ionin's (2003) and Ionin et al. (2004)'s Fluctuation Hypothesis and the predictions for L2 English article choice by L2 learners whose L1s lack the article system and to examine article preference in their English article use.

According to Chierchia (1998), languages can be distinguished by having or not having a mass-count distinction. That is, he proposes the Nominal Mapping Parameter (NMP), by which languages can be classified into three types on the basis of the type of NPs, taking '[+/-arg] and [+/-pred] as features constraining the way in which' the noun phrases 'are mapped into their interpretations' (p. 353).

Under the NMP, comparing Thai to English, Thai nouns are commonly argumental [+arg, -pred], that is, mass-like and kind-denoting expressions without plural marking. It is, hence, a language without a count-mass distinction. English nouns, however, can be either argumental (i.e., bare nouns: mass nouns and bare plurals) or predicative (i.e., count nouns licensed by a determiner: count singular nouns and definite count plurals). It is, then, a language which has a count-mass distinction and the [+arg, +pred] setting of the NMP.

As contended by Snape (2006), for L2 learners to succeed in resetting to the English setting of the NMP, it is necessary for them to 'distinguish between what is countable and uncountable in English.' (p. 15). Thus, this research study investigates Thai-L1 English-L2 learners' resetting their NMP to the English setting of the NMP mainly through their ability in differentiating between count and mass nouns in English. If they show native-likeness in such ability, that is, have ability in making a count-mass distinction which is consistent with that of native speakers, it can be assumed that they can reset their NMP setting to the English setting of the NMP.

Under the Article Choice Parameter (ACP) and the Fluctuation Hypothesis (FH), proposed by Ionin (2003) and Ionin et al. (2004), L2 learners of English whose native language is an article-less are

predicted that they will access both ACP settings (the settings of definiteness and specificity) in their choice of English articles, and they have initially not realised that English articles mark definiteness rather than specificity. They, then, fluctuate between the two settings of the ACP; that is, they occasionally follow the definiteness setting of the ACP and occasionally the specificity setting. In [+definite, -specific] and [-definite, +specific] contexts, the L2 learners are predicted that they will produce article substitution errors (i.e., substituting 'a' for 'the' and 'the' for 'a', respectively), or more specifically, overuse of 'a' in [+definite, -specific] contexts and overuse of 'the' in [-definite, +specific] contexts in their English article choice. On the contrary, in [+definite, +specific] and [-definite, -specific] contexts, the learners are expected that when choosing an English article, they will be able to use appropriate English articles (i.e., 'the' and 'a', respectively), or more precisely, to produce correct use of 'the' in [+definite, +specific] contexts and correct use of 'a' in [-definite, -specific] contexts. Consequently, in accordance with the FH, L2 learners will experience difficulty with L2 English article use in the contexts with a conflict between the semantic features: definiteness and specificity while they will not have such a difficulty in the contexts without such a conflict. The discussions of the reason for these linguistic phenomena, which Ionin and Ionin et al. point out, will be provided in the next chapter in the section: "Predictions for article choice in L2 English". However, under the FH, it is hypothesized that the learners with adequate input should finally be able to set the ACP to the appropriate value for English (the definiteness setting) and base their English article choice on definiteness only (Ionin et al., 2004).

Based on the ACP and the FH, briefly explained and illustrated above, this research study, focusing on the investigation of the acquisition of L2 English articles by Thai learners, will examine whether Thai learners' errors in L2 English article choice will have patterns as predicted by these theories of Ionin (2003) and Ionin et al. (2004). In this regard, this study hypothesises that the article errors committed by the Thai learners will have predictable patterns. That is, they will have L2 English article difficulty in the conflicting semantic contexts of articles, but will not have that in the non-conflicting semantic ones. To be more precise, it is predicted that for the Thai learners of English's error patterns, more article errors will be produced in the conflicting semantic contexts of articles: [+definite, -specific] or [-definite, +specific] than in the non-conflicting semantic ones: [+definite, +specific] or [-definite, -specific], based on Ionin's and Ionin et al.'s FH for English article choice by L2 learners as well as their predictions concerning article choice or article use patterns of L2 English learners whose L1s lack the article system.

In addition, this study will investigate whether Thai learners of English fluctuate between the definiteness setting and the specificity setting of the ACP in their L2 English article choice. Under the ACP and the FH, it is hypothesized in the present study that the Thai learners will demonstrate

fluctuation between the two settings of the ACP in the conflicting semantic contexts of articles by using the definite article 'the' and the indefinite article 'a' interchangeably some of the time while they will show correct use of the English articles in the non-conflicting semantic contexts. To clarify, it is predicted that the learners will show overuse of 'a' in [+definite, -specific] contexts and overuse of 'the' in [-definite, +specific] contexts since they sometimes connect indefinites with the feature [-specific] and definites with the feature [+specific], that is, fluctuate between the definiteness and specificity settings of the ACP.

Crucially, whether L2 learners of English have more difficulty in acquiring the English indefinite article 'a' than the definite article 'the' is another key issue which should be taken into account. As claimed by Lardiere (2004), to use definite articles in English, one does not need to take account of number and the mass-count distinction of NPs whereas in case of the use of English indefinite articles, he or she does. Hence, the English article 'a' seems to be more complicated than 'the', which is more 'featurally' simple (Lardiere, p. 335), in terms of being used. Considering this, the current research also aims at examining whether there is a difference between accuracy in English L2 article choice by Thai learners in definite ('the') contexts and that in indefinite ('a') contexts. Despite no equivalent in case of both indefinite and definite articles in Thai, it is expected that the Thai learners will more accurately use 'the' in [+definite] contexts than 'a' in [-definite] contexts as a result of more complication with regard to the use of indefinite articles in English, as discussed. Additionally, due to such a greater degree of the complexities of 'a' usage than 'the' usage, the Thai learners may prefer 'the' to 'a' in their article use, especially when they are not certain about which one of the English articles should be used. Such a preference may be the learners' specific strategy of using English articles and, therefore, have an effect on their choice of English articles. This study will, thus, explore whether the Thai learners have an article preference when choosing English articles. It is expected that the Thai learners will have such a preference, that is, more frequently use 'the' than 'a'.

In short, the main objectives of the present research study are as follows:

1. To investigate whether L1 Thai learners of L2 English can reset the Nominal Mapping Parameter (NMP) from the NMP setting of Thai, whose common nouns are argumental [+arg, -pred] or mass/kind-denoting expressions without plural marking and a mass-count distinction, to the [+arg, +pred] NMP setting of English

2. To examine whether the Thai learners of English will produce errors in their L2 English article choice which have non-random or predictable patterns

3. To study whether the Thai learners fluctuate between the two settings (the definiteness setting and the specificity setting) of the Article Choice Parameter (ACP) in their choice of L2 English articles

4. To investigate whether there is a difference between accuracy in the Thai learners' English definite ('the') and indefinite ('a') article choice and whether they have an article preference in their L2 English article use.

1.3 Research questions and predictions of the study

The research questions and predictions of this study are summarised and presented in the following.

1. Can Thai learners of English reset the Nominal Mapping Parameter from the Thai setting [+arg, -pred] to the English setting [+arg, +pred]?

Prediction 1: It is hypothesised that Thai learners can reset the Nominal Mapping Parameter (NMP) to the target setting (the English setting).

Based on the NMP, which Chierchia (1998) proposes, languages can be classified by this parameter into three types on the basis of the NP type in terms of having or not having a mass-count distinction in particular. Thai is a language whose common nouns are argumental or, then, which has the [+arg, -pred] NMP setting (i.e., Thai nouns are primarily mass/kind-denoting expressions, thus, without a mass-count distinction and articles, as well as without plural marking) whereas English is a language whose nouns can be either argumental or predicative or, then, which has the [+arg, +pred] NMP setting (i.e., English nouns can be either bare nouns: mass nouns and bare plurals or count nouns, licensed by a determiner: count singular nouns and definite count plurals, so they have a mass-count distinction, articles, and plural marking). As mentioned earlier, according to Snape (2006, p. 15), 'for resetting' to the English setting of the NMP 'to occur', it is necessary for L2 learners to 'distinguish between what is countable and uncountable in English'. Therefore, the count-mass grammaticality judgment (GJ) task adapted from Snape (2006), who designed such a task to explore whether L2 learners could differentiate between English count and mass nouns, is primarily applied to test this prediction. In the case that Thai learners exhibit native-like ability in making a distinction between the two noun types, it can be assumed that they can reset their NMP to the English setting of the NMP.

2. Will Thai learners' errors in the use of English articles have predictable patterns?

Prediction 2: It is predicted that the article errors produced by L1 Thai learners of L2 English will have non-random or predictable patterns.

Based on the Article Choice Parameter (ACP) and the Fluctuation Hypothesis (FH), advocated by Ionin (2003) and Ionin et al. (2004), or more precisely, on their predictions concerning English article choice or article use patterns of L2 learners whose L1s lack the article system, the article use or misuse of the learners appears to demonstrate the relationship between the semantic features of definiteness and specificity; that is, they will have problem with English article use in semantic contexts with a conflict between the two features, but not in semantic contexts without such a conflict. It is therefore predicted in this study that Thai learners' errors or accuracy in L2 English article choice will have non-random patterns, similar to those in the predictions of L2 English article choice, made by Ionin and Ionin et al. That is, it is predicted that Thai learners will make more errors in their choice of English articles in the conflicting semantic contexts of articles (i.e., [+definite, -specific] or [-definite, +specific] contexts) than in the non-conflicting ones (i.e., [+definite, +specific] or [-definite, -specific] contexts).

3. Do Thai learners of English fluctuate between the definiteness setting and the specificity setting of the Article Choice Parameter in their L2 English article use?

Prediction 3: It is expected that Thai learners will fluctuate between the definiteness and specificity ACP settings in their L2 English article choice.

As reviewed earlier, under Ionin's (2003) and Ionin et al.'s (2004) ACP and FH, it is hypothesized that L2 learners from an article-less L1 will have access to both ACP settings when using L2 English articles due to, initially, a lack of awareness of English articles' marking definiteness, not specificity, and they will, then, fluctuate between the two settings of the ACP (i.e., occasionally following the definiteness ACP setting and occasionally the specificity one). In their English article use, the learners are predicted to overuse 'a' in [+definite, -specific] contexts and 'the' in [-definite, +specific] contexts, that is, to commit article substitution errors at a relatively high level, but to be able to apply 'the' and 'a' appropriately in non-conflicting semantic contexts: [+definite, +specific] and [-definite, -specific], respectively. Thus, taking these proposals as a basis, in this study, it is predicted that in their L2 English article choice, Thai learners will fluctuate between the definiteness and specificity settings of the ACP, particularly in the conflicting semantic contexts. In other words, they are expected that they will indicate fluctuation or incorrect use of the definite article in English ('the') and the indefinite ('a') with the effects of specificity in specific indefinite article or [-definite, +specific] contexts and non-specific definite article or [+definite, -specific] contexts, respectively. To elaborate, they are predicted to substitute between the two English articles in these contexts as they fluctuate between the definiteness and specificity settings of the

ACP, that is, occasionally associate the indefinite article with the nonspecificity feature and the definite article with the specificity feature. In contrast, they are expected to indicate correct use of the English articles in the non-conflicting semantic contexts: specific definite article or [+definite, +specific] contexts and non-specific indefinite article or [-definite, -specific] contexts.

4. (A) Is there a difference between accuracy in Thai learners' English L2 article choice in definite ('the') and indefinite ('a') contexts?

(B) Do Thai learners have an article preference in their choice of L2 English articles?

Prediction 4: (A) It is hypothesised that Thai learners of L2 English will more correctly employ 'the' in [+definite] contexts than 'a' in [-definite] contexts.

(B) It is predicted that Thai L2 learners will have an article preference (i.e., prefer 'the' to 'a') in their English article choice.

As previously discussed, it is worth noting that L2 learners tend to considerably face the problem of acquiring L2 English indefinite articles because of the complexities of its usage. Comparing the indefinite article ('a') and the definite article ('the') in English, the use of the former seems to be more complicated than that of the latter. While 'the' can, for instance, be applied to both mass and count nouns as well as both singular and plural nouns, 'a' can be applied to singular count nouns only. That is, to use the indefinite article 'a', the countability and number of nouns need to be taken into account, but this is not the case for the definite article 'the'Lardiere (2004). It is, consequently, predicted in this research study that Thai learners will have the greater degree of difficulty with the indefinite article 'a' than the definite article 'the' in their L2 English article choice, so they will show more accuracy in their English definite ('the') article choice than indefinite ('a'). Also, it is predicted that the learners in this study will exhibit an article preference (i.e., prefer to use 'the') in their use of English articles as a result of the greater complexities of 'a' usage than 'the'. To clarify, they are expected to more frequently use 'the' than 'a' and, hence, show a higher rate of 'the' correct use and, at the same time, 'the' misuse than 'a' correct use and misuse rates, respectively.

To examine the Prediction 2-4, the research instruments employed are the forced choice elicitation (FCE) task and the production task (PT). As for the research participants, 118 Thai participants (i.e., the experimental group), divided by English proficiency level into intermediate, upper-intermediate, and advanced groups, as well as ten native English speakers (the control group) were recruited into the current research project.

1.4 Significance of the study

As previously mentioned, the current study is based within a UG framework to examine parameter setting in L2 acquisition, along with the linguistic interface concepts in the case of article acquisition, involving the semantic features: definiteness and specificity, to explain the linguistic phenomena under investigation whereas these approaches have been rarely applied to research issues in L2 acquisition, particularly on the subject of English article and NP acquisition by Thai learners. As a result, this study could help to provide more insights into L2 acquisition of English NPs and articles in the Thai setting in terms of what Thai learners of English do with English articles and NPs.

Essentially, data from the Thai participants with limited input exposure in this study could provide crucial information which would result in understanding of the learners' difficulty with L2 English articles and NPs and, then, lead to some pedagogical implications for teaching these linguistic structures to common Thai learners and to, subsequently, more effectively teaching and learning of them. In particular, it is thought that the English article system can be taught – based on the findings from research (Master, 1997). This implies that the research results from the present study could significantly lead to more understanding of the underlying reasons for common Thai learners' article difficulty, which is a persistent problem and thus could contribute to classroom teaching or pedagogical methods for teaching the article system in the educational setting in Thailand.

Also, this study would, hence, help to better understand the issues related to L2 English NP and article acquisition, especially in the Thai context, where studies focussing on parameter setting in such acquisition, particularly, by the learners with limited levels of L2 input exposure, are rare. More crucially, due to a lack of research into the role of an article preference in L2 learner article choice across different semantic contexts, this study would contribute knowledge to a field of L2 acquisition research and maybe challenge the FH, especially in the case that the observed English article choice patterns in this study seem inconsistent with the view under the FH that L2 learners' English article patterns are UG-regulated (Ionin et al., 2004).

Chapter 2: Literature Review

This chapter presents an explanation of noun phrases and semantic universals. It also describes the theoretical background and provides an overview of previous research on relevant L2 acquisition.

2.1 Noun phrases (NPs)

In the first section of this chapter, NPs in English (countability and number in English NPs and English articles) and NPs in Thai (how the Thai language indicates definiteness and specificity and how the Thai language indicates plurality) are presented.

2.1.1 Noun phrases in English: countability and number in English NPs and English articles

Due to the fact that NPs in English are primarily related to the concepts of countability and number as well as the article system, some description of these aspects should be provided.

2.1.1.1 Countability and number in English NPs

What are typically required or involved in NPs in English are the countability of nouns (count or mass nouns)and overt marking of number (singular or plural nouns). As pointed out by Chierchia (1998), English is a language whose NPs can either be bare nouns (mass nouns or bare plural nouns) or count nouns, licensed by a determiner (count singular nouns or definite count plural nouns). Based on these facts, English is a language with a mass-count distinction and overt marking of number. That is, its NPs can be either count or mass nouns and either singular or plural nouns.

According to Luksaneeyanawin (2005), the concept of singularity and plurality involves English NPs. That is, in case that a noun is countable, 'it can be a single item or concept and is referred to as a singular noun' (p. 5). A singular noun in English is not morphologically marked for singularity whereas a plural noun will typically have a syntactic marking of plurality by the plural morpheme {s} or {es}. Both singular and plural nouns can be definite, referring to the only noun, the known or mentioned one, and in this case the article *the* is used.

2.1.1.2 English articles

Articles in English are comprised of the definite article (1) *the*, which can be applied to definite singular and plural count and mass nouns as well as the indefinite articles (2) *a* or *an*, and (3) "the

zero or *null* article". The indefinite articles *a* and *an* can be applied only to indefinite singular count nouns. As suggested by Quirk et al. (1985), the only difference between these two articles (*a* and *an*) is that the former should be used in front of a word that begins with a consonant sound whereas the latter should be applied in front of a word that begins with a vowel sound. As for the zero article, which is defined by Carter and McCarthy (2006) as 'the use of no article' (p.930) in front of a noun, it can be used with the indefinite singular mass and plural count nouns.

Concerning definiteness and specificity, in brief, they are the discourse-related (i.e., taking the knowledge of the speaker and hearer in the discourse contexts into account) semantic features, directly linked to the article system. The former is primarily related to the knowledge of the referent shared by the speaker and the hearer in the discourse whereas the latter to solely the speaker's knowledge. Therefore, for instance, the referent in a definite NP is known to both the speaker and the hearer while in a specific NP, the referent is known only by the speaker. These two semantic features will be discussed in more detail in the section on semantic universals.

In relation to the English article system, definiteness is morphologically marked, rather than specificity. In other words, English has the definiteness setting of the Article Choice Parameter, which was proposed by Ionin et al. (2004), or marks the definiteness distinction; that is, the English article *the* will be applied to definite nouns, [+definite] NPs, and the English article *a* or *an* will be used with indefinite nouns, [-definite] NPs, regardless of the specificity distinction, [+specific] or [-specific] NPs. As can be noted, English articles are grouped by definiteness, as shown in the examples below, taken from Ionin et al. (2009, pp. 338-339).

(3) a. [+definite, +specific] context

I want to talk to **the** winner of this race –she is a good friend of mine.

b. [+definite, -specific] context

I want to talk to **the** winner of this race – whoever that happens to be.

c. [-definite, +specific] context

Professor Robertson is meeting with **a** student from her class – my best friend Alice.

d. [-definite, -specific] context

Professor Robertson is meeting with **a** student from her class – I don't know which one.

2.1.2 Noun phrases (NPs) in Thai

Thai is a classifier language which is generally regarded as a head initial language (Jenks, 2006) as well as an article-less one due to the lack of the article system (Tan, 2005). Regarding Thai nominals or nouns, NPs in the Thai language comprise 'the head noun obligatorily at their left boundary' (Jenks, 2006, p. 1), which is head-initial. The structure of the Thai NPs or nominal phrases appears to be different from its English counterpart in various ways, including the presence of a classifier, the absence of inflectional morphology as a way of coding plurality, and the lack of articles. That is, unlike English NPs, Thai NPs may co-occur with or occasionally need a classifier (Singnoi, 2008); in addition, they do not have plural morphological inflection (Smyth, 2002) and articles (Laisatrukrai, 1999).

Likewise, according to Luksaneeyanawin (2005, pp. 8-10), overtly syntactic or morphological markers of definiteness (definite or indefinite), countability (mass or count), and number (singular or plural), which are the concepts marked in the English NPs, do not exist in NPs in the Thai language. The interpretation of whether a Thai noun, especially a bare one, is 'definite or non-definite, mass or count, and singular or plural' (p. 8) depends on the context.

See the sentence (4), the illustration of a Thai argument in the object position, and the sentence (5), the demonstration of a Thai argument in the subject position, below for examples, adapted from Luksaneeyanawin (2005, p. 10) and Winward (2012, pp. 9-10), repectively. In the two sentences, the possible interpretation or translation of each sentence into English was provided.

(4) chăn cà sú̶u̶ **náŋsŭ̶u̶**

I will buy **book**

'I am going to buy **a book** (singular, indefinite)/**books** (plural, indefinite)/**the book** (singular, definite)/**the books** (plural, definite).'

(5) **măa** nɔɔn nɔ̂ɔk bâan

dog sleep outside house

'**A dog** (singular, indefinite) is/**dogs** (plural, indefinite) are/**the dog** (singular, definite) is/**the dogs** (plural, indefinite) are sleeping outside the house'

Considering the above sentences, which could be interpreted or translated into English in several ways, it may be stated that Thai arguments could be 'interpreted as indefinite or definite and singular or plural by reference to context.' (Winward, 2012, p. 10). This is likely to be an essential reason why many Thai learners encounter the difficulties in acquiring or producing English articles

and plurals in English NPs. Also, the interpretation of Thai arguments, depending on the context as such, leads a number of Thai learners to have difficulty in making a distinction between count and mass NPs in English. This is because as remarked by Luksaneeyanawin (2005), apart from indefiniteness or definiteness and singularity and plurality, countability (mass or count) of Thai arguments or Thai NPs is not encoded. To put it simply, Thai NPs are expressions which denote or indicate the state of being mass or kind of a certain NP; that is, they are commonly mass-like and kind-denoting expressions. They could, then, be interpreted as mass or count by reference to context. The context or, more specifically, the common linguistic construction which can be applied to establish the state of being count of a Thai noun will be described in the section of "How the Thai language indicates plurality".

2.1.2.1 How the Thai language indicates definiteness and specificity

Even though there is no article in the Thai language, there is some means of denoting specificity and definiteness in Thai NPs.

To denote definiteness, Thai generally indicates definiteness through the use of demonstratives such as níi ('this'), nán ('that'), and nóon ('that over there'), which usually co-occur with a classifier in the construction "Noun + Classifier + Demonstrative", as can be seen in the following examples from Smyth (2002, p. 35).

(6) lûuk khon níi [+definite]

child classifier this

'this child'

(7) sâ̱a tua nán [+definite]

blouse classifier that

'that blouse'

(8) bâan lăŋ nóon [+definite]

house classifier that over there

'that house over there'

As can be seen in the above examples, the NPs are [+definite] through the use of demonstratives, together with classifiers.

In terms of specificity, the use of a classifier can signal specificity of a Thai NP (Winward, 2012), for instance, by using a classifier and the numeral nùeŋ (‘one’) in the NP in the construction “Noun + Classifier + the numeral nùeŋ” (Piriyawiboon, 2010). An example of this is provided be by Winward (2012, p. 10) as follows.

(9) mǎa tua nùeŋ nɔɔn nɔ̂ɔk bâan

dog classifier numeral ‘one’ sleep outside house

‘A (certain or particular) dog is sleeping outside the house.’

In this example, the NP “mǎa tua nùeŋ” has specificity signalled by adding a classifier “tua” and the numeral “nùeŋ (‘one’)”. This means that the NP is [+specific] and refers to a particular dog, not any dogs. How to indicate definiteness and specificity in Thai will be discussed in more detail in the section in connection with definiteness and specificity in Thai.

2.1.2.2 How the Thai language indicates plurality

Due to the fact that Thai is a classifier language whose noun phrases do not need ‘overt marking of number (singular versus plural) or countability of nouns (count versus mass)’ (Amuzie and Spinner, 2013, p. 420), Thai NPs generally appear bare, that is, to be bare nouns or co-occur with noun modifiers, especially classifiers. As regards singularity and plurality, unlike English, Thai lacks overt marking of number. Therefore, indicating number of items or things in Thai is different from that in English.

Concerning ways of expressing singularity or plurality in Thai NPs, one way is the use of numerals and classifiers in NPs (Luksaneeyanawin, 2005, p. 8; Singnoi, 2008, p. 84; Smyth, 2002, p. 31), for instance, in the construction “Noun + Numeral + Classifier”. In other words, a noun in Thai occasionally requires a classifier to identify its unit when it occurs with a numeral or when it is being counted, as in the following examples adapted from Singnoi and Smyth.

(10) khâaw sɔ̌ɔŋ caan

rice two classifier

‘two plates of rice’

(11) pàakkaa sɔ̌ɔŋ dâam

pen two classifier

'two pens'

(from Singnoi, 2008, p. 84)

(12) phûan sɔ̌ɔŋ khon

friend two classifier

'two friends'

(13) mǎa hâa tua

dog five classifier

'five dogs'

(14) náŋsŭu sìp lêm

book ten classifier

'ten books'

(from Smyth, 2002, p. 31)

From the above examples, it can be seen that Thai is different from English in that it uses classifiers such as caan (used for counting rice), dâam (used for counting pens), khon (used for counting people), tua (used for counting animals), and lêm (used for counting books) when a Thai noun is counted. Apart from being a way of indicating singularity or plurality in Thai NPs, this construction (Noun + Numeral + Classifier) is, accordingly, a way of indicating the state of being count of a particular noun in Thai at the same time.

Another way of expressing plurality of NPs in Thai is through using quantifiers such as baaŋ ('some') and lǎay ('several'), together with a classifier, in the NP (Smyth, 2002) in the construction "Noun + Quantifier + Classifier", as the example (15) below from Smyth (2002, p. 25).

(15) phŏm pay kàp **phûan** **lăay** **khon**

I go with **friend** **quantifier: several** **classifier**

'I went with several friends.'

In the example above, the NP "phûan lăay khon" ('several friends') demonstrates a Thai noun with plurality indicated using a quantifier and a classifier (Quantifier + Classifier) to indicate.

In addition to plurality in a Thai NP, Thai can occasionally indicate plurality in its NP by reduplication of the noun itself (Luksaneeyanawin, 2005; Smyth, 2002), as the example (16) from Smyth (2002, p. 25) as well as by repeating a certain word such as dii ('good'), which is a stative adjective, in case of a stative verb (Yates and Tryon, 1970), as the example (17) from Yates and Tryon (1970, p. 63).

(16) phŏm pay kàp **phûan** **phûan**

I go with **friend** **friend**

'I went with friends.'

(17) tó dii dii

Table good good

'(some) good tables'or '(some) tables that are good'

The NPs: "phûan phûan" ('friends') in the example (16) and "tó dii dii" ('good tables' or 'tables that are good') in the example (17) show that plurality in a Thai noun can be indicated by reduplication of a certain noun and repetition of a certain word (e.g., a stative adjective), respectively.

As to expressing of singularity of a Thai noun in particular, such a way is a rather limited. The most common way of doing this is, however, through the use of the construction "Noun + the quantifier sàk + Classifier". This construction will be accounted for in the section relating to definiteness and specificity in Thai.

2.2 Semantic universals

The current study applies the notion of semantics and pragmatics, i.e., the discourse-related semantic features: definiteness and specificity to the investigation of L2 article acquisition. To

better understand what is meant by the definiteness and specificity features in this study, the description of each of the semantic features needs to be provided. Additionally, the discussions of these two features (definiteness and specificity) in the English article system and in the Thai language are also presented.

2.2.1 Definiteness

There have been the descriptions in relation to the semantic feature of definiteness, suggested by several experts and researchers (e.g., Hawkins, 1978; Ionin et al., 2004; Ionin, 2003, and Lyons, 1999). According to Yang and Ionin (2009), given that definiteness is concerned with the state of knowledge of the speaker and the hearer in the discourse, this feature is a 'discourse-related' (p.325) semantic feature.

Hawkins (1978) states that definiteness or [+definite] feature is reflected in the discourse when the speaker and the hearer have shared knowledge of a referent or referents, that is, the shared set of objects being referred to. Similarly, as remarked in Ionin (2003)'s and Ionin et al.'s (2004, p. 5) description of definiteness, in the case that a NP which occurs in the construction "Determiner + Noun phrase" is [+definite], 'then the speaker and hearer presuppose the existence of a unique individual in the set denoted by the noun phrase'; that is, definiteness is viewed as the speaker's and the hearer's presuppositions of the existence and uniqueness of an individual or entity. The definition of the definiteness feature, which Ionin and Ionin et al. used in their studies, is based on Heim's (1991) explanation regarding such a semantic concept in terms of Fregean analysis: 'Existence and uniqueness conditions as presuppositions, Fregean analysis' (p.11), as well as analysis of the indefinite article in terms of 'an existential quantifier' (p.31). Heim's analysis of the definite article and that of the indefinite article are presented below:

Heim's (1991, p.11) analysis of the definite article:

Fregean analysis

Regardless of the utterance context, [the ζ] ξ expresses that proposition which is

- true at an index i, if there is exactly one ζ at i, and it is ξ at i,

- false at an index i, if there is exactly one ζ at i, and it is not ξ at i,

- truth-valueness at an index i, if there isn't exactly one ζ at i.

Heim's (1991, p.31) analysis of the indefinite article:

> A sentence of the form [a ζ] ξ expresses that proposition which is true if there is at least one individual which is both ζ and ξ, and false otherwise.

These analyses concerning definiteness and indefiniteness of Heim (1991) are also adopted and clearly described by Ko et al. (2010, p.218) as follows.

> Definiteness
>
> A sentence of the form [def α] ζ presupposes that there exists at least one individual which is α and that there exists at most one individual which is α, and it asserts that the unique individual which is α is also ζ.
>
> Indefiniteness
>
> A sentence of the form [indef α] ζ asserts there is at least one individual which is both α and ζ.

According to Ko et al. (2010, p.218), definiteness is reflected in the discourse where a [+definite] NP exists. Such a NP reflects the existence presupposition (i.e., 'there exists at least one individual') and the uniqueness presupposition (i.e., 'there exists at most one individual') of a referent of the speaker and hearer in the discourse. As can be noted, it may be stated that definiteness is related to both the speaker's and the hearer's knowledge status. Particularly, this semantic feature involves the speaker's and the hearer's knowledge or presuppositions of existence and uniqueness of a referent. For indefiniteness, it is, nevertheless, reflected in the discourse where a [-definite] NP occurs. In this case, such a [-definite] NP indicates or asserts the existence of a referent introduced into the discourse by the speaker although the existence of a unique referent is not created between the speaker and the hearer. That is, there is at least one individual or entity in the set denoted by the indefinite NP, as Ko et al. describe.

2.2.2 Specificity

As for the definition of specificity, it is suggested by Ionin (2003), Ionin et al. (2004, p. 5) and Ionin (2006) that in the case that a NP in the form "Determiner + Noun phrase" is [+specific], 'then the speaker intends to refer to a unique individual in the set denoted by the NP and considers this individual to possess some noteworthy property'; that is, specificity is involved in the 'speaker intent to refer' (Ionin et al., 2009, p.338). The word "noteworthy" is defined by Ionin (2003) as 'important/relevant for the purposes of the discourse' (p.56). Thus, the words "noteworthy property" refer to a property which is regarded as one that is important and relevant in 'one

discourse setting' (p.56) and, then, that is unlikely to be relevant in other discourse settings, as Ionin discusses.

For the definition of the specificity feature, which was used in Ionin's (2003), Ionin et al.'s (2004), and Ionin's (2006) studies, was developed from Fodor and Sag (1982), whose view on this concept is that it involves the speaker's referentiality. That is, based on Fodor and Sag's proposal, for a [+specific] individual or entity, the speaker clearly has the identity of the individual or the entity being referred to in his or her mind. The following is the definition of specificity based on Fodor and Sag, which is provided in Ionin (2003, p.56).

> A sentence of the form [sp α] ζ expresses a proposition only in those utterance contexts c where the following felicity condition is fulfilled: the speaker of c intends to refer to exactly one individual χ_c in c, and there exists a property ϕ which the speaker considers noteworthy in c, and χ_c is both α and ϕ in c. When this condition is fulfilled, [sp α] ζ expresses that proposition which is true at an index i if χ_c is ζ at i and false otherwise.

In the definition of specificity above, Ionin (2003) defines "sp" as 'specificity marker' (p.56). As can be seen, specificity is related to the speaker's intention to refer to a particular individual or entity with some noteworthy property. It is, accordingly, different from the definiteness feature mainly since as previously mentioned, definiteness involves the knowledge state of both speaker and hearer while specificity involves that of only speaker. Ko et al. (2008) remarks on this point that specificity, unlike definiteness, is relevant to the speaker's knowledge of 'a uniquely salient discourse referent', or more precisely, to his or her intention to refer to the referent 'regardless of the hearer's knowledge status' (p.119).

2.2.3 The semantic features of definiteness and specificity in English article system and in Thai

Based on Ionin's (2003) and Ionin et al.'s (2004) argument, it is probable that the semantic features of definiteness and specificity are morphologically and crosslinguistically marked in the article system of a language, including the English article system. Although this is not the case for the Thai language due to the fact that there are no articles in Thai, Thai learners are likely to have knowledge of these semantic concepts, that is, have access to the semantic universals. Ionin et al. (2004) can provide support for this claim since they assert that L2 learners have full access to definiteness and specificity through UG, and these semantic features play a significant role in the L2 learners' possible patterns of article choice.

2.2.3.1 Definiteness and specificity in English

As previously discussed, in English, the definiteness feature, not specificity, is overtly marked through its article system at the morphological and syntactic level. To illustrate, English uses the article *the* with [+definite] NPs and the article *a* with [-definite] NPs, regardless of whether the NPs are [+specific] or [-specific]. In the light of such linguistic phenomenon, there are four main semantic contexts of the NPs, as proposed by Brinton (2000) among others. Some examples of such semantic contexts are given in (18) below. They are adapted from Momenzade et al. (2013, p.33).

(18) a. [+definite, +specific] context, in which the target article is *the*

Joan wants to present the prize to **the winner of this race**, but he doesn't want to receive it from her.

b. [+definite, -specific] context, in which the target article is *the*

Joan wants to present the prize to **the winner of this race**, so she'll have to wait around till the race finishes.

c. [-definite, +specific] context, in which the target article is *a*

Sarah wants to talk to **a colleague of mine**, John Brown.

d. [-definite, -specific] context, in which the target article is *a*

Sarah wants to talk to **a colleague of mine**, but I don't know which one.

(Adapted from Momenzade et al., 2013, p.33)

In the sentence (18a), "the winner of this race" is [+definite] and [+specific] because the speaker and the hearer share the presupposition that there is a unique winner of this race, and the speaker intends to refer to a particular winner as well as has a particular one in mind. For "the winner of this race" in the sentence (18b), it is [+definite] because the speaker and the hearer share the unique existence of the referent (i.e. winner) whereas it is [-specific] since the speaker neither has a particular winner in mind nor has intent to refer to a particular winner. In the sentence (18c), "a colleague of mine" is [-definite] but [+specific] as the knowledge of a unique colleague is not shared by the speaker and the hearer though the speaker has knowledge of the referent and intention to refer to a particular colleague of his or hers, whose name is John Brown. "A colleague of mine" in the sentence (18d) is [-definite] and [-specific] in that neither the speaker

nor the hearer have knowledge of the referent (i.e. a colleague, being referred to); moreover, the speaker, then, has no intention to refer to a particular colleague and nor a particular one in mind.

Definiteness in English

Under Ionin's (2003) and Ionin et al. (2004)'s Article Choice Parameter (ACP), definiteness is one of the parameter settings, on which some of the two-article languages base their article differentiation, such as English. In English, the definite article *the* is associated with the semantic feature: definiteness or, more specifically, the feature [+definite], which is primarily connected to 'the presuppositions of existence and uniqueness' (Ko et al., 2010, p.218) of a referent whereas the indefinite article *a* is associated with the semantic feature: indefiniteness or, more specifically, the feature [-definite], which is commonly connected to the absence of the presupposition with regard to the existence of a unique referent.

As pointed out by Hawkin (1978) and Trenkic (2009), the definite article has reference to an identifiable entity, being referred to. In this regard, if the entity which the speaker refers to is unique and can be identified in the discourse by both of the speaker and hearer, it is regarded as [+definite] and used with the definite article. Robert (2003) claims that uniqueness seems a key element of definiteness. Likewise, Lyons (1999) notes that in English, the concept of uniqueness of an object in the set represented by an NP can be indicated by the use of the definite article 'the' with the NP. It may, accordingly, be said that uniqueness, or more specifically, the uniqueness presupposition, appears to be closely linked with definiteness or the definite article.

Apart from the presupposition of uniqueness, there are some other aspects which are involved in definiteness. Based on the definition of the definiteness feature, which Ionin (2003) and Ionin et al. (2004) propose, Yang and Ionin (2009, p.326) suggest the use of the English definite article *the*, especially in singular NPs, that there are three aspects which should be taken into account in order to allow the appropriate use of the definite article *the*. These are the presuppositions of existence and uniqueness of a referent, which must be reflected. For the existence presupposition, there should be 'at least one salient' referent in the discourse, and for the uniqueness presupposition, there should be only or 'at most one salient' referent in the discourse. The other aspect for the suitable use of the definite article is that the speaker and the hearer share the existence and uniqueness presuppositions. To clarify, both of them have the shared knowledge that there is a salient entity or individual, being referred to.

In respect of the use of the English definite and indefinite articles in the light of the existence and uniqueness presuppositions of speaker and hearer, when, for instance, an object or an individual has previously existed or is not of the first mention in the discourse, the definite article *the* will be

used with the NP, representing the object or the individual, because the existence of a unique object or individual is reflected. Instead, the indefinite article *a* will be used with the NP, representing an object or an individual, in case that the object or the individual has been firstly mentioned in the discourse because of a lack of the presupposition of the unique existence of the object or the individual. These can be demonstrated in the following example (19). The example sentences in (19) are from Ionin et al. (2004, p.7), Ko et al. (2010, p.218), Yang and Ionin (2009, p.326), and Ko et al. (2008, p.119), respective.

(19) a. I saw **a *cat***. I gave **the cat** some milk.

b. I saw **a *black cat*** in the street [...] I bought **the black cat** home.

c. I have **a *pen*** in my bag. I will give you **the pen**.

d. There is **a *black pen*** [...] I am going to use **the black pen**.

In the example sentences (19) above, the definite article *the* is applied to the previously mentioned NPs in the following discourse, namely the underlined "cat" in (19a), "black cat" in (19b), "pen" in (19c), and "black pen" in (19d) in that they carry unique referents. In other words, the unique existence of a cat in (19a), a black cat in (19b), a pen in (19c), and a black pen in (19d) are established by the referents, mentioned earlier in the discourse, and, thus, both speaker and hearer share the knowledge or the presupposition that there is a unique cat, black cat, pen, or black pen, being referred to.

With reference to the firstly mentioned NPs in (19), which are the italicised "cat" in (19a), "black cat" in (19b), "pen" in (19c), and "black pen" in (19d), they are used with the indefinite article *a*. This is because when the speaker mentions the NP "cat", "black cat", "pen", or "black pen" at the first time, it does not carry a unique referent, and the knowledge of the existence of a unique cat, black cat, pen, or black pen is, then, not shared by the speaker and the hearer. That is, the presupposition concerning the existence of a unique entity is not created between the speaker and the hearer since the entity (the italicised noun) in each of the first sentences in (19) is referred to or introduced into the discourse by the speaker for the first time. The indefinite article *a* is, as a result, suitable to use in such case (the first mention of the entity).

In addition to the previously mentioned NPs or the anaphor, according to Ionin et al. (2004, p.7), and Ko et al. (2008, p.119; 2010, p.218), establishing the presupposition of uniqueness can result from 'mutual world knowledge', which is the common ground of the speaker and the hearer, and in this case, the definite article *the* is suitable for being used 'without any previous mention' (Ko

et al., 2008, p.119). Hence, it is not always necessary that the use of the definite article *the* has to do with the previous mention (Ko et al., 2008; 2010).

The presupposition of uniqueness can be reflected, and the definite article *the* is applied to this phenomenon in several ways. The referent can be unique to the speaker and the hearer, for example, (a) due to the knowledge of the world such as "the moon" in the sentence: 'I saw **the moon** today. It was really beautiful.', (b) in a particular setting such as "the desk", only one of which is in a room, in the sentence: 'Look at **the desk** in my room. It is really clean!', and (c) through entailment such as "the engine", only one of which is in a car, in the sentence: 'I fixed **the engine** yesterday. The car runs really smoothly now.' (Ko et al., 2008, p.119). Furthermore, according to Ko et al. (2010), the uniqueness of the referent may be reflected (d) in a particular social group such as "the boss" in the sentence: I am going to ask **the boss** for a rise, and in the immediate situation or by 'pointing, nodding, and spotlighting' (p.218) such as "the dog" in the sentence: Watch out for **the dog**, it is coming this way. Ko et al. (2010, p.218) also suggest that the presupposition of uniqueness may be established (e) 'by definition' such as "the last sentence" in the sentence: 'I like **the last sentence** of your novel very much.' (Ko et al., 2008, p.119) as well as (f) 'by inference' such as "the plumper who fixed my sink last week" in the sentence: '**The plumber who fixed my sink last week** did a poor job.' As demonstrated, the referent can uniquely exist for the speaker and the hearer in the discourse through their common ground or world knowledge, and this allows the appropriate use of the definite article *the*.

Specificity in English

Apart from the definiteness setting, the other setting of Ionin et al. (2004)'s ACP is the specificity setting. English is not categorised as having this setting in that the specificity feature is not lexically encoded in the English article system (Brinton, 2000). More precisely, in Standard English, the article system does not morphologically encode specificity (Ko et al., 2010). As can be seen in the example sentences in (18), no matter whether the NPs are [+specific] and [-specific], they can be used with both of the definite article *the* and the indefinite article *a*. Even so, as pointed out by Ionin (2003, 2006), taking colloquial English into account, this semantic concept appears to be able to be marked by using the demonstrative "this", or more specifically, 'the referential *this*' or '$this_{ref}$' (Ionin, 2006, p.177). Ionin (2006) regards the referential *this* as a kind of the indefinite article which marks the specificity feature in spoken English. This notion is also supported by Ionin et al. (2009), who state that 'a destressed form of the demonstrative *this*' (p.339) marks the specificity semantic feature in the case of indefinites in colloquial English. The following example sentences in (20), adapted from Lyons (1999), were applied to demonstrate the use of the referential *this* for marking specificity on indefinites by Ionin et al. (2004, p.7).

(20) a. Peter intends to marry **a** merchant banker—even though he doesn't get on at all with her.

b. Peter intends to marry **this** merchant banker—even though he doesn't get on at all with her.

c. Peter intends to marry **a** merchant banker—though he hasn't met one yet.

d. Peter intends to marry ***this** merchant banker—though he hasn't met one yet.

(From Lyons, 1999, p.176)

In the sentences (20a) and (20b), the underlined NPs are [+specific] because the speaker intends to refer to a particular merchant banker who has the noteworthy property of being the one with whom Peter does not get on at all. In this case, the indefinite *a* and the referential *this* can be interchangeably used; that is, the indefinite *a* can be replaced by the referential *this* in spoken English as in the sentence (20b). In contrast, in the sentences (20c) and (20d), the underlined NPs are [-specific] because the speaker does not have intent to refer to a particular merchant banker or any particular merchant banker in mind, and he or she does not regard this merchant banker as one with some noteworthy property. While the indefinite *a* is allowed as in the sentence (20c), the referential *this* is not in this case; otherwise, it seems incomprehensible or conveys relatively weird semantics as in the sentence (20d). This is because the referential *this* in informal English holds the [+specific] feature, and is, then, not allowed in the nonspecific contexts whereas the specificity feature is not encoded in the use of the indefinite *a*, and the use of the indefinite article is, then, allowed in the specific or nonspecific contexts (Ionin et al., 2004).

To sum up, there are no specificity markers at the morphological level in the article system of Standard English. However, considering these examples in (20), it can be seen that in spoken English, the referential *this* can be used to encode the specificity semantic feature on indefinites or as 'a specific indefinite marker' (Ionin et al., 2009, p.342). To be more precise, in informal English, the referential *this* can be used with an indefinite NP by the speaker to mark specificity or to exhibit his or her intention to refer to a particular individual or entity, containing some noteworthy property, in the set denoted by the NP.

2.2.3.2 Definiteness and specificity in Thai

The Thai language, in which the article system does not exist (Laisatrukrai, 1999; Tan, 2005), overtly marks neither definiteness, as in certain languages which do, such as English, nor specificity, as in some languages, for example, Samoan. In other words, as mentioned in the previous section concerning Thai NPs, given the absence of articles in the Thai language, there are

no overtly syntactic or morphological representations of the semantic features: definiteness and specificity through the article system in Thai (Luksaneeyanawin, 2005). Despite that, there are some ways of expressing these semantic universal concepts in Thai.

Definiteness in Thai

In the matter of definiteness, it can typically be indicated in a Thai NP by using a demonstrative, for instance níi ('this'), nán ('that'), and nóon ('that over there'), together with a classifier, for instance lêm (the classifier for books), khùuat (the classifier for bottles), and khan (the classifier for cars). In such cases, the NPs which denote the definiteness feature in Thai will occur in the construction "Noun phrase + Classifier + Demonstrative". This is illustrated in the following examples (21), (22), and (23), apart from the relevant examples (6), (7), and (8) in the section relating to NPs in Thai.

(21) náŋsŭu lêm níi/nán/nóon [+definite]

book classifier for books this/that/that over there

'this book/that book/ that book over there'

(22) biia khùuat níi/nán/nóon [+definite]

beer classifier for bottles this/that/that over there

this beer/that beer/ that beer over there''

(23)rót khan níi/nán/nóon [+definite]

car classifier for cars this/that/that over there

'this car/that car/that car over there'

As shown by the above examples, definiteness can be expressed in Thai NPs when the NPs arise jointly with or are followed by a classifier and a demonstrative, respectively. In case that the Thai NPs exist without any classifier and demonstrative (i.e. in the case of bare nouns) as the NPs themselves: náŋsŭu (book) in (21), biia (beer) in (22), and rót (car) in (23), they can be interpreted as either definite or indefinite nouns, that is, can have either [+definite] or [-definite] readings, which depend on the context (Luksaneeyanawin, 2005). See the sentence (24) below for an example.

(24) chăn cà sú̶u̶ **nĭyaai**

I will buy **novel**

'I will buy **a novel/the novel**.'

In the example (24) above, the Thai NP: nĭyaai (novel) does not co-occur with the words, through which definiteness can be reflected (i.e. a classifier and a demonstrative). The bare noun (nĭyaai) can, as a result, be interpreted as either definite (i.e. the novel) or indefinite (i.e. a novel), depending on the context. Some examples of the context for the sentence (24) are given in (25) below.

(25) a. chăn kamlaŋ ca pai ráannăŋsŭ̶u̶ sàk ráan

I being will go bookshop any classifier for shops

'I am going to any bookshop.'

b. nĭyaai lêm mài khŏ̀ɔŋ nákkhĭian khon

novel classifier for books latest of novelist classifier for people

pòot chăn ɔ̀ɔk lá

favourite I launch already

'My favourite novelist's latest novel has already been launched.'

If the context of the sentence (24) is the context (25a) as /chăn kamlaŋ ca pai ráannăŋsŭ̶u̶ sàk ráan/, /chăn cà sú̶u̶ **nĭyaai**/ ('I am going to any bookshop. I will buy **a novel**'), such bare noun in Thai (nĭyaai) in (24) will have an indefinite reading. This is because it is clear from the context that the speaker and the hearer do not share the unique existence of a novel, being referred to. As to the context (25b), if it is the context of the sentence (24) as /nĭyaai lêm mài khŏ̀ɔŋ nákkhĭian khon pòot chăn ɔ̀ɔk lá/, /chăn loei cà sú̶u̶ **nĭyaai**/ ('My favourite novelist's latest novel has already been launched. Then I will buy **the novel**'), the Thai bare noun: nĭyaai in (24) will now have a definite reading. This is on account of the previous discourse or context, particularly the referent, mentioned earlier in the discourse (nĭyaai), which enables the speaker and the hearer to presuppose the existence of a unique novel, being referred to.

However, no matter whether a Thai NP is interpreted as [+definite] or [-definite], it differs from English in that definiteness is not encoded in such a NP through the article system, as in English

NPs. While English uses the definite article *the* to encode [+definite] NPs and the indefinite article *a* to encode [-definite], there is no articles to do that for Thai NPs, and, hence, the Thai NPs commonly appear bare. Instead, Thai NPs can denote definiteness with the help of a classifier and a demonstrative in the construction "Noun phrase + Classifier + Demonstrative", as discussed earlier.

Specificity in Thai

As regards the specificity feature, this semantic feature can be expressed in Thai NPs through the use of a classifier (Winward, 2012). One of the means of doing so is the application of a classifier and the numeral nùeŋ ('one') to the NPs in the construction "Noun + Classifier + the numeral nùeŋ" (Piriyawiboon, 2010). The illustrations of this are given in (26), (27), and (28) below (For the other relevant example of this, see in the section concerning Thai NPs).

(26) rót khan nùeŋ [+specific]

car classifier for cars numeral 'one'

'A (particular) car'

(27) pàakkha dâam nùeŋ [+specific]

pen classifier for pens numeral 'one'

'A (particular) pen'

(28) nám khâeo nùeŋ [+specific]

water classifier for glasses numeral 'one'

'A (particular) glass of water'

As can be seen in the above examples, the construction "Noun + Classifier + the numeral nùeŋ" can yield specificity (i.e. [+specific] feature) of the NPs: rót ('car') in (26), pàakkha ('pen') in (27), and nám ('water') in (28). Indeed, when the NPs appear in such construction, they will bear [+specific] readings, and [-definite] readings at the same time. Smyth (2002) states that in a Thai NP, when there exists the word nùeŋ ('one') after a classifier, this word 'can be treated as the indefinite article *a*, describing the noun' (p.33) in the construction. Accordingly, the numeral nùeŋ, following a classifier, functions as the specificity marker and simultaneously as the indefiniteness marker of the NPs, with which it co-occurs, in this sense. For the NPs in the examples above, they, then, make reference to a particular referent: a

particular car in (26), a particular pen in (27), and a particular glass of water in (28). See the sentence (29) below for an example of the numeral nùeŋ, following a classifier, when it arises jointly with a NP in discourse.

(29) **rót** **khan** **nùeŋ** chɔ̀ɔt nɔ̂ɔk bâan

car **classifier for cars** **numeral 'one'** park outside house

'**A (certain or particular) car** is being parked outside the house.'

In this example, specificity is reflected in the Thai NP "rót khan nùeŋ" since the noun "rót" co-occurs with the words, through which specificity can be reflected, namely a classifier (i.e. khan) and the numeral nùeŋ ('one'). Furthermore, indefiniteness is also reflected because the word "nùeŋ" ('one'), coming after a classifier (i.e. khan), in this NP can be treated as the indefinite article *a*, describing the noun "rót" in this sense. Therefore, the NP "rót khan nùeŋ" in the example (29) refers to a particular car, not any car. In other words, the NP in (29) is [+specific] because the speaker has a particular car in his or her mind and intend to refer to this car. However, if the noun "rót" appears bare, that is, is not followed by the classifier "khan" and the numeral nùeŋ ('one'), it can be interpreted as either specific or nonspecific, depending on the context.

Another means of denoting specificity in Thai NPs is the use of a classifier and the quantifier sàk ('any') in the NPs in the construction "Noun + the quantifier sàk + Classifier". The following are the relevant examples of this.

(30) rót sàk khan [-specific]

car quantifier 'any' classifier for cars

'Any car'

(31) dinsɔ̌ɔ sàk thâeŋ [-specific]

pencil quantifier 'any' classifier for pencils

'Any pencil'

(32) ráannăŋsŭu̶ sàk ráan [-specific]

bookshop quantifier 'any' classifier for shops

'Any bookshop'

As demonstrated in the examples above, through the construction "Noun + the quantifier sàk + Classifier", nonspecificity (i.e. [-specific] feature) can be indicated in the NPs: rót ('car') in (30), dinsɔ̆ɔ ('pencil') in (31), and ráannăŋsŭu̶ ('bookshop') in (32). The quantifier sàk, followed by a classifier like khan in (30), thâeŋ in (31), and ráan in (32), functions as the nonspecificity marker of the NPs, with which it arises jointly, in this regard. As a matter of fact, when the word "sàk" exists after a classifier in a NP, it can also function as the singularity marker of the NP, where it co-occurs. This is because such word means "any person or any thing", referring to one of a number of people or things. Consequently, the NPs in these examples refer to any one of the referents, not a particular car in (30), a particular pencil in (31), or a particular bookshop in (32). Look at the following sentence (33) for an example of the construction "Noun + the quantifier sàk + Classifier" when it exists in a discourse.

(33) chăn kamlaŋ ca pai **ráannăŋsŭu̶ sàk ráan**

I being will go **bookshop any classifier for shops**

'I am going to **any bookshop**.'

In the example (33), nonspecificity is expressed in the Thai NP "ráannăŋsŭu̶ sàk ráan" since the noun "ráannăŋsŭu̶" ('bookshop') and the words, through which nonspecificity can be established, namely the quantifier sàk ('any') and the classifier "ráan" ('classifier for shops'), appear together. The NP "ráannăŋsŭu̶ sàk ráan" in this example, thus, makes reference to any bookshop, not a particular bookshop. That is, the NP in (33) yields the [-specific] reading since the speaker does not have a particular bookshop in his or her mind and, then, not have intent to refer to a particular referent. In the case of the noun "ráannăŋsŭu̶" as a bare noun (i.e. without the quantifier sàk ('any') and the classifier "ráan"), the interpretation of whether this noun is specific or nonspecific depends on the context.

As has been noted, there does not exist an article system in Thai, and, thus, Thai applies the different means of expressing the semantic universal features: definiteness and specificity from English. More precisely, despite the lack of overtly encoding of definiteness and specificity, Thai can express these semantic features with the help of a classifier, together with a demonstrative in

the case of denoting the former, and with certain words like the numeral nùeŋ (‘one’) and the quantifier sàk (‘any’) in the case of denoting the latter. On the other hand, English overtly encodes definiteness and specificity through the article system. Hence, these semantic concepts play a major role in the English article system. Based on this fact, although the difference between L1 and L2 does not necessarily imply difficulty in L2 acquisition, a number of Thai learners might experience difficulty with acquiring and mastering the English article system as a result of the differences in the way Thai and English express the definiteness and specificity features to some extent. Taking the fact that the definiteness and specificity semantic features play a major role in the English article system as a basis, these semantic features tend to have the effect on L2 learners’ acquisition of English articles or on their English article choice, in particular when their L1 lacks the article system and when a means of denoting the semantic features in their L1 differs from that in their L2. Considering these aspects, this research study, therefore, aims at investigating L2 acquisition of English articles by Thai learners. In doing this, this study will be based on the Article Choice Parameter (ACP) and the Fluctuation Hypothesis (FH), proposed by Ionin (2003) and Ionin et al. (2004) mainly in that these theories ‘specifically attend to the problem of learning the article system’ (Momenzade et al., 2014, p.30) as well as provide the predictions, directly related to the article choice in L2 English by learners whose L1 lacks an article system, with which definiteness and specificity are closely associated.

For better understanding, the concepts related to the semantic universals: definiteness, involving the speaker’s and the hearer’s knowledge of a referent, and specificity, involving the speaker knowledge of a referent and the speaker intention to refer to the referent (Ionin and Wexler, 2003, p.150) are clarified as follows. According to Kaku (2006), the concept of referentiality is a semantic feature concerning the speakers’ knowledge of the referent and speaker intention to refer to it. As can be seen, referentiality carries the same meaning as the specificity feature. For uniqueness, this concept is involved in the presupposition of uniqueness of a referent, that is, there exists only ‘at most one salient’ individual or referent in the discourse (Ko et al., 2010 p.218; Yang and Ionin, 2009, p.326). As Robert (2003) states, a key element of definiteness is uniqueness. The familiarity feature is involved in the familiarity with the referent in the discord. The semantic feature of partitivity is ‘a sub-type of presuppositionality’ (Ko et al., 2008, p.120). It refers to an indefinite DP that is a member of a set that the speaker has mentioned in the previous discourse and assumes that the hearer has a shared presupposition of the existence of the indefinite DP (Ko et al., 2008).

2.3 Theoretical background

The present study adopts a Universal Grammar (UG) framework involved in parameter setting or resetting to investigate the L2 acquisition of English articles and NPs by Thai learners of English. It may be stated that UG is an appropriate approach to research L2 acquisition. It is increasingly adopted as a framework to study L2 acquisition of syntax (Wesche, 1994). Crucially, it can provide a robust and rich theoretical basis for research work on a variety of issues concerning L2 acquisition of L2 grammar. As Braidi (1999) points out, the UG approach provides a potential approach to L2 acquisition in that 'the linguistic analyses allow for specific predictions – which can be proven true or false – of how language acquisition should proceed'. Furthermore, detailed accounts for language variation as well as predictions related to how such a variation will be indicated in L2 acquisition can be given through the application of the UG approach. Also, 'it makes testable predictions' regarding what will play a role in language learners' acquisition, for example, 'the type of input' (p.74). In particular, the UG framework can be adopted to explore or examine how L2 learners acquire the target grammar, especially the grammatical structure that does not exist or is not overtly marked at the morpho-syntactical level in their L1 such as the English article system. Accordingly, the current study is based on the UG framework since it tends to be an appropriate approach to the investigation of English article and NP acquisition by L2 Thai learners. More specifically, the parameter-setting model is assumed in the current study in that this study's main aim is to investigate the Thai L2 learners' setting or resetting of a parameter (i.e., the Article Choice Parameter and the Nominal Mapping Parameter) in their L2 acquisition of English NPs and articles. The following are the explanations of the theories and the concepts related, including the Nominal Mapping Parameter, the Article Choice Parameter, and the Fluctuation hypothesis.

2.3.1 The Universal Grammar (UG) and input

Since the present study is based in the Universal Grammar (UG) paradigm, an overview of some relevant theoretical concepts will be provided. This includes parameter (re)setting, as well as the notion of UG accessibility in L2 acquisition. In addition, the role of input in language acquisition is also discussed.

2.3.1.1 UG Principles and Parameters (P&P): parameter (re)setting

The concept of UG is introduced and has been developed within Chomsky's proposal of the generative theory: Government and Binding (Chomsky, 1981), which is aimed at describing our native language knowledge and L1 acquisition. UG is what is common in every language (Saville-

Troike, 2006) and what one was born with (Slabakova, 2016). That is, UG is the inherent or biological component that performs a function of 'language acquisition device' (Braidi, 1999, p.49). From the perspective of generative grammar, there seems to be wide acceptance that L1 acquisition is guided and constrained by UG. In this view, or more precisely, in 'the innatist (nativist)' viewpoint, UG or language faculty, which is 'the innate biological endowment' or a natural language processing ability, enables human beings to be ready to acquire linguistic elements in the language they 'encounter at birth' (Slabakova, 2016, p.7). Children can acquire a human language even with fairly slight exposure and without being trained (Chomsky, 1975). That is, they are able to acquire their mother tongue and produce their L1 grammar or sentences, even those which they have not been taught and which surpass the input that they are exposed to, quite 'fast and effortlessly' (Slabakova, 2016, p.7). The view that children's natural linguistic knowledge or linguistic competence goes beyond the input that the children obtain is the poverty of the stimulus argument or the logical problem or linguistic phenomenon of language learning (Chomsky, 1986).

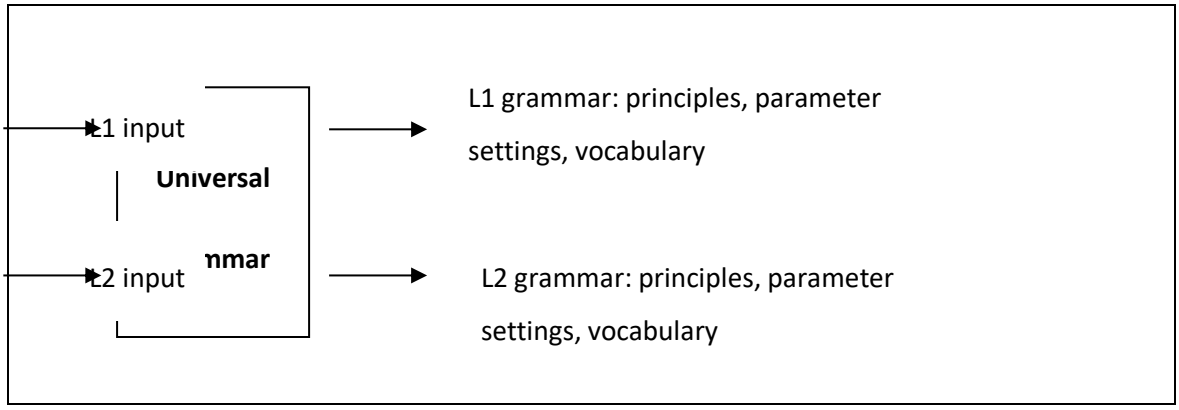
Chomsky's (1981, 1986) Principles and Parameters (P&P) theory was proposed before the Minimalist Program was developed (Chomsky, 1995, 2007). In P&P framework, UG is composed of a variety of principles and parameters. UG principles are linguistic rules and properties that are commonly present in every language, and some of the UG principles have parameters, or 'points where there is a limited choice of settings depending on which specific language is involved' (Saville-Troike, 2012, p.50). In other words, parameters are linguistic properties demonstrating a limited range of UG options that vary across languages; parameter settings are the various values of those options (White, 1989) or variation patterns in 'the restricted set of grammars' (p.311) constrained by UG (Huang and Roberts, 2017). The knowledge of principles is, hence, innate and universal whereas parameters lead to language variation, and language learners have to set the parameters on the basis of the input that they obtain. The input, then, helps them with parameter setting or 'fixation' (Saleemi, 1992, p.13), that is, to choose or fix one of the different possible parameter values.

To acquire a language means to set 'all the parameters of UG appropriately'. That is, when acquiring a language, one is in the process of selection of 'settings for parameters, which, interacting with the network of principles, create a core grammar.' Such a grammar or acquired linguistic knowledge includes a number of lexical items associated with 'pronunciation, meaning and syntactic restrictions' (Cook and Newson, 2007, p.59). In L1 acquisition, children in 'the L1 linguistic environment' (Braidi, 1999, p.49) will set the parameters of their L1 grammar or make choice of the parameter settings that are consistent with their L1 input received. For instance, in Japanese linguistic environment, children learning L1 Japanese obtain L1 input when they hear

sentences with the word order that tell them that 'Japanese has a head-final parameter setting' and will, then, select the head-final setting. In the case of English children learning their L1, they receive input by hearing sentences with the word order that tell them that 'English generally has a head-initial parameter setting' and will select the head-initial setting accordingly (Saville-Troike, 2012, pp.50-51). The child L1 learners can succeed in setting the parameter for a certain principle even through a limited amount of input. In L1 acquisition, UG principles and parameters are assumed to be innate; that is, they are part of the inherent language faculty from birth. Hence, a specific language acquisition by native children is related to 'a process of selecting from among the limited parametric options in UG those that match the settings' (Saville-Troike, 2012, p.51) that the children encounter in their L1 input.

According to Cook and Newson (2007), the main difference between L1 and L2 acquisition is that while acquiring an L2, the L2 learners have had linguistic competence of their L1 in their mind. Unlike their initial L1 state (i.e., no any language knowledge has been present in their mind), prior knowledge of a particular language (i.e., their L1 grammar, including principles and parameter settings) has existed in their initial L2 state. Additionally, there is also the difference between the final state of L1 and L2 acquisition. For the final state of the former, its outcome is 'native linguistic competence' (Saville-Troike, 2006, p.21); that is, all language learners acquire the same linguistic knowledge, which is native competence, in their L1 acquisition. In contrast, for the final state of L2 acquisition, the learners' L2 acquisition outcome varies in proficiency levels; that is, they reach varying levels of competence in the L2. Some learners could 'function at high levels barely distinguishable from native speakers, others at a minimal level' (Cook and Newson, p.231). The following figure demonstrates the process of language acquisition, suggested in Cook and Newson's 'the Universal Grammar model of L1 acquisition extended to L2 acquisition' (p.229).

Figure 2.1 The Universal Grammar model of L1 acquisition extended to L2 acquisition



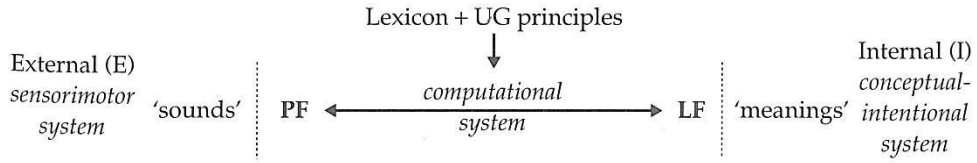
From Cook and Newson (2007, p.229)

To acquire a language, language learners, presented with the primary linguistic data, will process such input data in the language acquisition device, i.e., UG. Then the language output is their linguistic competence in the language or their acquired language knowledge, comprising UG principles, parameter settings, and lexical items. For L2 acquisition, the learners will receive a second set of input data, and they acquire a second linguistic competence output, comprising 'a second version of the principles, a second batch of settings for the parameters, and a second lexicon' (Cook and Newson, 2007, p.229). Unlike the L1 learners, whose initial state in the mind is UG (the innate language-learning ability), in the L2 learners' initial state, as previously discussed, there have been their acquired L1 knowledge. This means that in their L2 initial state, the learners have selected or fixed all of the parameter settings that are appropriate for their L1, constrained by UG (Saville-Troike, 2006). As a result, in L2 acquisition, UG has been incorporated within the L2 learners' steady-state L1 grammar (Cook and Newson, 2007).

As Saville-Troike (2006) states, regarding the similarity and the difference between L1 and L2 parameter settings for the same principle, if those settings are the same, positive L1 transfer to L2 is likely to take place whereas if they are different, negative transfer probably appears. In the latter case, there need to be resetting of the parameters, based on input in the L2, from the L1 settings to the L2. In other words, the L2 learners need to change their L1 parameter settings into the L2 settings for the same principles in that the L2 input they obtain and their L1 settings do not match. For the Nominal Mapping Parameter (NMP), for instance, the Thai and English NMP settings are different. Accordingly, in Thai learners' L2 acquisition of English noun phrases (NPs), the L2 learners have to reset the NMP from the Thai NMP setting to the English setting on the basis of the English L2 input they receive. As regards the Article Choice Parameter (ACP), however, due to the fact that Thai has no articles, the Thai learners have to set the ACP to the appropriate setting for English, which is the definiteness setting, in their L2 English article acquisition. The NMP and the ACP will be discussed in more detail in the section on related parameters.

Language is regarded as things inside and outside the human mind; it is related to the sounds (physical linguistic forms) and the meanings (mental forms). According to Chomsky (2001), the computational system is the linguistic system, by which Phonetic Form (PF) or physical language expression (i.e., sounds or letters) and Logical Form (LF) or the mental forms of language (i.e., meanings) are linked with one another. The computational system, including the lexical items and the UG principles, interfaces with sounds through the sensorimotor system for physical language expression or perception and with meanings through the conceptual-intentional system for 'conceiving and understanding linguistic expressions' (Cook and Newson, 2007, p.248), as illustrated in the figure below.

Figure 2.2 The computational system



From Cook and Newson (2007, p.9)

It may be concluded that to know a language, one has to know PF and LF (i.e., the sounds and meanings of the language), linked through the computational system, together with the lexicon and the UG principles, which are incorporated within the computational system.

In L2 acquisition, the notion of linguistic interfaces has been recently applied to 'content, processes and outcomes' of language acquisition. Attention to such a notion considerably 'enhances the importance accorded different types of meaning' (Saville-Troike, 2012, p.55), which are composed of 'lexical, (phrasal) semantic, grammatical, discourse-related, and pragmatic' meanings (Slabakova, 2016, p.286). Lexical meaning is the basic or original meaning of a word. This kind of meaning is 'stored in our mental lexicon' (Slabakova, 2016, p.286). For the second kind, semantic meaning, it refers to the meaning at the phrase or sentence level. In the interpretation of this meaning type, syntax-semantics interface exists in that one has to consider the meanings of all the words in a phrase or sentence, along with 'their order and other rules' to encode the semantic meaning. What a certain word appearing in a sentence means depends on the context. For grammatical meaning, inflectional morphology frequently encodes this meaning type, such as plural –s or past tense –ed. For interpretation of grammatical meaning, one needs to process 'lexical-morphological interface' (Saville-Troike, 2012, p.55) in that apart from grammatical meaning, lexical meaning is also considered when interpreting a word with inflectional morphology. The interpretations of the discourse-related and pragmatic meanings are associated with the discourse context; the latter also takes account of world knowledge.

Taking the interface concepts into account, what is acquired in article acquisition seems to exhibit the syntax-semantics/pragmatics interface. As for the English article system, for example, there appears to be the point of contact between syntax and semantics and pragmatics in acquisition of such a grammatical item. This is because in the English article acquisition, the L2 learners need to link the article meanings (semantic and pragmatic meanings), which involve the discourse-related semantic features: definiteness and specificity, to the forms (syntax), namely '*a*(*n*)', *the* and *null* article, used with an NP. More specifically, the semantic feature definiteness is morphologically marked in the English article system. Hence, as discussed by Slabakova (2016, p.309), when the L2

learners from an article-less language acquire English articles, they need to 'map the semantic feature definiteness onto its morphological expression *the*, and the lack of it to *a*(*n*) in singulars or zero article in plurals.' As can be seen, in English article acquisition, the learners acquire the functional items at the syntax-semantic/pragmatic interface since they need to know or consider the article meanings or article semantics in the sentence or discourse to enable them to choose the appropriate morphological expression for the DPs.

2.3.1.2 Access to UG

With respect to the role of UG in L2 acquisition, how L2 learners acquire L2 grammar has been investigated in various L2 acquisition research work, especially within a UG framework. In those research studies, issues of the role of UG principles and parameters in L2 acquisition, that is, whether UG principles and parameters, guiding and constraining native language or L1 acquisition, are available or accessible to L2 learners in their L2 acquisition has been examined and discussed. There are three main possibilities in connection with L2 learners' accessibility of UG, namely full or direct UG access, partial UG access, and no access to UG.

Regarding full or direct access to UG, there are two relevant notions, which are the notion of full access and full transfer and the notion of full access but no transfer. For the former, it is assumed that L2 learners initially transfer their L1 grammar, including both lexical and functional categories, to L2 acquisition. While acquiring L2 grammar, they have access to UG principles and parameters, even those which do not exist in their native grammar, at every state of their L2 acquisition (Schwartz and Sprouse, 1994). For the latter, it claims that L2 learners have direct or full access to UG without L1 transfer effects in their acquisition of L2 grammar (Epstein et al., 1996). This view seems to correspond Ionin's (2003) and Ionin et al.'s (2004) Fluctuation Hypothesis (FH) in the case of L2 learners from article-less L1 background. This is because the FH hypothesises that in the absence of L1 transfer, L2 learners have full access to both UG-provided definiteness and specificity settings of the Article Choice Parameter (ACP).

Under the partial UG access view, it is argued that UG is partially available to L2 learners. This means that they have partial UG access, so they may not succeed in setting or resetting to parametric values for their L2 (Hawkins and Chan, 1997). According to Vainikka and Young-Scholten (1994, 1998), at the initial state of their L2 grammar acquisition, L2 learners will transfer their L1 syntactic knowledge of lexical categories, not functional categories. L2 Functional categories will be projected by the L2 learners with the help of UG access and L2 input.

According to the view of no access to UG, it is claimed that UG is not available to L2 learners, especially adult L2 learners. In adult L2 acquisition, the learners have no access to UG, but rather applying general learning strategies to their L2 acquisition (Bley-Vroman, 1990).

Considering the role of UG, as discussed above, it is likely to be regarded to be an influential and appropriate approach in the investigation of L2 acquisition since it can provide the researchers with an efficient approach to studies on various second language acquisition issues.

2.3.1.3 The role of input

The role of input in L2 acquisition

According to Pilar et al. (2013), input means the oral or written linguistic structures that language learners are exposed to. In other words, it refers to the linguistic elements presented to the learners through reading or listening (Gass and Mackey, 2007b). Input is very crucial in that it can facilitate 'L2 comprehension and development' (Pilar et al., 2013, p.217). In Munoz's (2014) study on the input exposure and starting age effects on Spanish learners' English oral performance, it was found that input had more effect on the learners' oral performance than their starting age of L2 acquisition. Montrul's (2009) research on L2 acquisition of Spanish morphology and syntax indicated that input quantity and language use tended to play a role in L2 acquisition than starting age. Moreover, the impact of different amounts or levels of input exposure on L2 acquisition was also found. The results of the study by Leow (1998), for instance, demonstrated that different exposure levels affected the language learners' L2 acquisition of Spanish irregular verbs. The performance on the tests relating the irregular forms differed between the learners with different levels of exposure. Those with more levels of input exposure showed the higher performance. Consequently, it may be argued that the learners' level of input exposure seems to have a potential effect on L2 acquisition.

Taking the L2 English article acquisition into account, even though it has been claimed that UG helps provide L2 learners with universal semantic factors involved in article choice (definiteness and specificity), it does not enable the learners to select the appropriate article choice specifications for the target language. Input that L2 learners receive plays a vital role in performing such a task. The crucial data in the input that will lead the L2 learners to set the ACP to the appropriate value for English is the linguistic instances or the data on the features: definiteness and specificity, namely the English DPs conveying the definiteness and specificity readings across the discourse contexts. With the help of the input triggers or the positive L2 evidence that they receive, L2 learners can realize that they should consider the definiteness feature of the target DP, not specificity in their English article choice (Ionin et al., 2008b). In other

words, generalizing from the input received, the learners can be aware that English articles are differentiated on the basis of definiteness only, not specificity. Accordingly, it is relatively obvious that input plays a major role in L2 acquisition since it can be L2 learners' major source of knowledge of L2 grammar or serve as triggers that enhance their L2 acquisition, as can be seen in the case of English articles.

When comparing between the input triggers involved in article choice and in a count-mass distinction, it can be noted that the former seems to be more ambiguous than the latter. This is due to the fact that the triggers concerning article choice are 'discourse-based' (Ionin et al., 2004, p.52), whereas the count-mass distinction is primarily concerned with syntactic knowledge. Therefore, the input triggers related to article choice may be ambiguous in terms of an interpretation of the definiteness and specificity feature of a certain DP across the discourse contexts. Learning or generalizing from the article choice triggers, thus, seems to 'a fairly long and difficult process' (Ionin et al., 2008b). Even so, if the learners have a high frequency of a particular linguistic structure in the input obtained, they can succeed in generalizing from the various L2 instances and hence acquiring the target grammar (Ionin et al., 2004; 2008b).

Thai learners' English L2 input

For the input that the Thai learners receive, most Thai learners start their learning of English in primary schools approximately at the age of 5 or 6. However, some of them start prior to primary level approximately at the age of 3 or 4. In secondary schools, Thai learners primarily study English approximately about once or twice a week, approximately one or two hours each time. Outside their English classes, they use only Thai native language. They are rarely exposed to English. This is due to the fact that most, or almost all, students and teachers in schools, including in university, in Thailand are Thai native speakers (i.e., non-native speakers of English), and, then, they typically speak only Thai both inside school and university (i.e., English is not the medium instruction in the educational settings) and outside, including at home. Their exposure to English is mostly limited to only class material and instruction when they attend English class. More importantly, from the researcher experience in teaching and learning of L2 English in the Thai context, it appears that commonly, the Thai L2 learners have a limited opportunity for receiving the positive L2 input data, especially those which are vital for their success in setting to the appropriate ACP setting for English. That is, the data or the positive instances relevant to English DPs with the definiteness and specificity features in the various discourse contexts, which are crucial in ultimately leading them towards the definiteness setting, are available in the input that they experience at a significantly limited level as in fact, the Thai learners generally have an opportunity to see and hear English sentences with articles in the classroom contexts (i.e., their

English class textbooks and settings), not in the naturalistic contexts or settings (i.e., English article use in discourse), leading the learners into limited positive input connected with English article system.

As can be seen above, the Thai learners' English L2 input exposure and frequency are considerably limited. This probably has a substantial effect on their success in acquiring and mastering English noun phrases and, particularly, English articles. For example, Ionin et al. (2004) suggest that ESL textbooks 'generally devote very small sections (just a few pages) to a review of English articles, stating a few general rules for article usage and a few examples, without extensive discussion.' (p.53). They point out that this might lead the learners to use or overuse of English L2 articles based on a particular set of rules or a specific strategy of using an English article which they learned. Therefore, the input that the L2 learners receive tends to play a role in their L2 learning, possibly including their UG parameter setting/resetting or not resetting parameters.

2.3.2 Relevant parameters

The parameters which are mainly relevant to the current study are the Nominal Mapping Parameter and the Article Choice Parameter. The concepts of these parameters are, thus, presented in the following sections.

2.3.2.1 The Nominal Mapping Parameter (NMP)

According to Chierchia (1998), languages can be distinguished by having or not having a mass-count distinction. That is, he proposes the Nominal Mapping Parameter (NMP), by which languages can be classified into three types on the basis of the type of NPs, taking '[+/-arg] and [+/-pred] as features constraining the way in which' the NPs 'are mapped into their interpretations' (p. 353). The first one is 'an NP [+arg, -pred] language' (p. 353) without a mass-count distinction such as Thai and Chinese. In this language type, nouns are generally bare arguments (kind-denoting) and 'mass-like' (p. 357), have no plural marking and obligatorily co-occur with classifiers for counting. The second type is an 'NP [-arg, +pred]' (p. 355) language where all nouns are predicates and need to co-occur with a determiner in the case of being turned into an argument such as Italian which is an example of the language classified into this type. The last type is 'an NP [+arg, +pred] language' (p. 356) with a mass-count distinction such as English. In this type, nouns can be either bare arguments (e.g., mass nouns), 'names of kinds' (p. 352), or predicates (i.e., count nouns). For count nouns, they can be bare arguments (names of kinds or kind reference, referring to a kind-denoting expression, which means a word used to express a noun as a kind or which indicates the state of being a kind of a certain NP) when licensed by plural *–s* (i.e., bare plurals).

Comparing Thai to English, Thai, whose common nouns are argumental [+arg, -pred], mass-like and kind-denoting expressions without plural marking, is, thus, a language without a mass-count distinction whereas English, whose nouns can be either argumental (i.e. bare nouns: mass nouns and bare plurals) or predicative (i.e. count nouns licensed by a determiner: count singular nouns and definite count plurals), has a mass-count distinction and the [+arg, +pred] setting of the NMP. According to Snape (2006), it can be assumed that to succeed in resetting to the English setting of the NMP, it is necessary for L2 learners to 'distinguish between what is countable and uncountable in English.' (p. 15). Thus, this research study investigates Thai-L1 English-L2 learners' resetting their NMP to the English setting of the NMP mainly through their ability in differentiating between count and mass nouns in English. If they show native-likeness in such ability, that is, have ability in making a count-mass distinction which is consistent with that of native speakers, it is likely to be assumed that they tend to be able to reset their setting of the NMP to the target setting (English setting).

2.3.2.2 The Article Choice Parameter (ACP)

Ionin (2003) and Ionin et al. (2004) proposed a key parameter associated with article choice which is the Article Choice Parameter (ACP), a discourse-related parameter (Atay, 2010; Ionin, 2003). According to the ACP, for a language which consists of two articles, for example, English and Samoan, its articles are distinguished as (1) 'the Definiteness Setting', which refers to distinguishing articles 'on the basis of definiteness' such as English and (2) 'The Specificity Setting', which refers to distinguishing articles 'on the basis of specificity' (p.12) such as Samoan. That is, 'articles crosslinguistically may encode the semantic concepts of definiteness and specificity' (Ko et al., 2010, p.17). Ionin (2003) argues for this view that languages with articles crosslinguistically differ in their article-related lexical representations, that is, representing or encoding either definiteness or specificity in their articles. It is worth noting that the ACP is a UG-constrained parameter that captures such a difference in lexically representing of articles (Ionin, 2003; Kim and Lakshmanan, 2009).

As can be seen above, as Ionin (2003) and Ionin et al. (2004) point out, English, which falls into the first category of the ACP (the definiteness setting), divides their articles on the basis of definiteness whereas Samoan, which falls into the second category of the parameter (the specificity setting), on the basis of specificity. In so doing, English uses the article *the* in the [+definite] context and the article *a* in the [-definite] context, regardless of whether the context is [+specific] or [-specific]. On the other hand, Samoan applies the article 'le' to the [+specific] context and the article 'se' to the [-specific] context, regardless of the definiteness distinction, the [+definite] or [-definite] context. This view of the ACP leads Ionin et al. (2004) to predict two

possibilities of article choice and, then, to suggest 'article grouping cross-linguistically' (p.13) in a two-article language, consisting of article grouping by definiteness such as the English article system and article grouping by specificity such as the Samoan article system. The representation of such article grouping is given in Table 2.1, adapted from Ionin et al. (2004, p.13) and Ionin et al. (2008, p.6).

Table 2.1 Article Grouping Cross-Linguistically: Two-Article Languages

Article Grouping by Definiteness (e.g., English)

	+definite	-definite
+specific	'the'	'a'
-specific		

Article Grouping by Specificity (e.g., Samoan)

	+definite	-definite
+specific	'le'	
-specific	'se'	

As shown in the table above, languages with two articles are grouped either by definiteness, for instance, English, or by specificity, like Samoan. The two-article languages, whose articles are grouped by definiteness, mark their article system for definiteness, not for specificity; that is, the articles for the languages in this category are distinguished only by definiteness at the morpho-syntactic level. As for the other category: the two-article languages, whose articles are grouped by specificity, conversely, they mark their articles for specificity, not for definiteness. Then the articles for these languages are morpho-syntactically distinguished only by specificity.

In short, the ACP is an article-choice and discoursed-related parameter. It is directly linked to languages with two articles. That is, this parameter is the UG-constrained one in connection with two possibilities of article choice or the possible article interpretation (Hawkins et al., 2006) in two-article languages. These languages may crosslinguistically mark the semantic concepts of either definiteness or specificity in their articles. The example of the former is English and the latter Samoan, as pointed out by Ionin et al. (2004, p.13) and Ionin et al. (2008, p.6).

Taking the ACP into account, it is worthwhile to consider or explore how L2 learners, especially those from article-less L1s, use L2 articles: which setting of the ACP is adopted when they choose articles in their L2 or whether they choose L2 articles on the basis of definiteness or specificity. As a result of doing this, the roles of the semantic features: definiteness and specificity in L2 article acquisition can be reflected. Thus, the current study examined how Thai L2 learners of English, whose mother tongue lacks the article system, choose English articles in order to investigate the roles of definiteness and specificity in their article use.

2.3.3 The Fluctuation hypothesis (FH)

The current study focuses on L2 acquisition of articles in Thai L2 learners of English. It is therefore necessary to examine the Fluctuation Hypothesis (FH), advocated by Ionin (2003) and Ionin et al. (2004), which is inextricably linked with Ionin's and Ionin et al.'s Article Choice Parameter (ACP). The following outlines the Fluctuation Hypothesis for article choice in L2 English and the predictions for L2 learners concerned, as well as introducing related studies.

2.3.3.1 Fluctuation for article choice in L2 English

In the work by Ionin et al. (2004), two proposals involved in the UG perspective were discussed. One of them is that based on Finer and Broselow (1986), 'L2 learners show evidence of accessing parameter-settings that are instantiated in neither their L1 nor their L2' (Ionin et al., 2004, p.16). The other one is that 'optional adherence to' (p.16) different settings of certain parametric domains is demonstrated by L2 learners; that is, they occasionally follow one particular parameter setting and occasionally another one. These two points conform to the UG perspective with regard to having full access to UG of L2 learners. Taking account of such points, Ionin et al. (2004, p.16) suggest the Fluctuation Hypothesis (FH), which is a UG-based hypothesis, as follows.

> The Fluctuation Hypothesis:
>
> a. L2 learners have full access to UG principles and parameter-settings.
>
> b. L2 learners fluctuate between different parameter settings until the input leads them to set the parameter to the appropriate value.
>
> *(Ionin, 2003, p.23; Ionin et al., 2004, p.16)*

According to the FH, recommended by Ionin, 2003 and Ionin et al., 2004, UG principles and parameter settings are fully available or accessible to L2 learners. This means that they have 'UG constrained grammars and have access to different UG parameter settings' (Sarko, 2008, p.206). As a result, their errors in L2 grammar are 'nonrandom' (Ionin et al., 2004, p.16) but are posed by L2 learners' accessing different possible UG parameter settings or fluctuating between different possible UG choices. They occasionally adopt the appropriate setting of the parameter for the specific L2 and occasionally adopt the inappropriate one. This linguistic phenomenon has arisen until the L2 learners obtain sufficient input and, then, are likely to be able to set to the appropriate parameter setting for the target language. Having sufficient input, in case of the English article system, the learners should be able to generalize that the English article *the* marks 'definiteness rather than specificity' from 'discourse-based input triggers' (Ionin et al, 2004, p.52)

or from the English L2 input involved in article choice, which they receive and which serves as triggers that enhance their L2 learning of English articles.

When putting the ACP and the FH together, Ionin, (2003, p.23) and Ionin et al (2004, p.17) propose 'the FH for L2 English article choice', as shown below.

> The Fluctuation Hypothesis for L2 English article choice:
>
> a. L2 learners have full UG access to the two settings of the Article Choice Parameter.
>
> b. L2 learners fluctuate between the two settings of the Article Choice Parameter until the input leads them to set this parameter to the appropriate value.
>
> *(Ionin, 2003, p.23; Ionin et al., 2004, p.17)*

As detailed above, it is expected by the FH that L2 learners whose L1 is an article-less language will be given the article-semantics UG choices 'that are available in natural language', including the choices or the parameter settings 'that are not instantiated in either the learners' L1 or their L2' (Ionin et al., 2009, 339) by UG. Consequently, the L2 learners from L1 without an article system are predicted that they will access both semantic parameter settings of the ACP: definiteness and specificity and should therefore demonstrate fluctuation between the two settings of ACP, that is, fluctuating between the definiteness setting of ACP and the specificity setting in their L2 article choice. Ultimately, the L2 learners who receive adequate L2 input will be able to choose L2 articles on the basis of the suitable value of the ACP for the target language. They can, then, exhibit native-like accuracy in their L2 article choice.

In terms of the English article system, as Ionin et al. (2004) and Ionin et al. (2009) point out, it is predicted by the FH that L2 learners of English whose native language does not have an article system or those in case of the absence of L1 transfer will have access to both ACP settings (definiteness and specificity). However, the learners would not initially be aware of the English article system marking the former rather than the latter. This possibly causes them to fluctuate between the two article semantic settings: English articles are sometimes distinguished or chosen by the L2 learners on the basis of definiteness, and sometimes on the basis of specificity. In other words, occasionally, *the* is treated as definiteness encoding and *a* as indefiniteness encoding by the learners, and occasionally, the former is treated by them as specificity encoding and the latter as nonspecificity encoding. In the second case, it appears to become problematic for the learners when definiteness and specificity conflict in that it may lead to article substitution errors, 'article interpretation or substitution of one article for the other' (White, 2008, p.4): substitution of the article *the* for *a* and the article *a* for *the*. These article errors will be discussed in more detail in the

next section (the Predictions for article choice in L2 English). However, under the FH, the learners with sufficient input are predicted that they should be able to set the ACP to the definiteness setting, which is 'the appropriate setting for English', and finally distinguish or use English 'articles on the basis of definiteness only' (Ionin et al., 2004, p.18).

2.3.3.2 Predictions for article choice in L2 English

Based on the FH, as mentioned earlier, L2 speakers of languages with no article system are predicted that when selecting L2 articles, they will fluctuate between the two possible UG choices for the ACP, which are the definiteness and specificity settings of the ACP: some of the time, their selection of L2 articles will be based on definiteness, and some of the time, it will be based on specificity. According to Ionin, 2003 and Ionin et al, 2004, when fluctuating between the two ACP settings, L2 learners are predicted that they will face article difficulties in the contexts in which definiteness and specificity conflict, namely, definite nonspecific contexts and indefinite specific contexts. In contrast, they will not have any problem with the contexts with no conflict between definiteness and specificity. The example below is from the example (3), which is repeated here as the example (34) to illustrate different English article semantic contexts. Some examples of the contexts with a conflict between definiteness and specificity are in (34b) and (34c) while those of the contexts with no conflict between the two semantic features are in (34a) and (34d).

(34)a. [+definite, +specific] context

I want to talk to **the** winner of this race –she is a good friend of mine.

b. [+definite, -specific] context

I want to talk to **the** winner of this race – whoever that happens to be.

c. [-definite, +specific] context

Professor Robertson is meeting with **a** student from her class – my best friend Alice.

d. [-definite, -specific] context

Professor Robertson is meeting with **a** student from her class – I don't know which one.

(from Ionin et al., 2009, pp. 338-339)

Concerning article difficulties and simplicities of different semantic contexts, the essential reason for these linguistic phenomena were provided by Ionin et al, (2004) as the following.

Table 2.2 Article Grouping Cross-Linguistically: Two-Article Languages

Article Grouping by Definiteness (e.g., English)

	+definite	-definite
+specific	'the'	'a'
-specific		

Article Grouping by Specificity (e.g., Samoan)

	+definite	-definite
+specific	'le'	
-specific	'se'	

(Adapted from Ionin et al., 2004, p.13 and Ionin et al., 2008, p.6)

Considering article grouping by the definiteness setting and the specificity setting, discussed in the previous section of the ACP (Table 2.1 is repeated above as Table 2.2), Ionin et al. (2004) argue that in both article grouping types, it is expected that one article in a particular language such as *the* in English or 'le' in Samoan should be applied by the L2 learners to specific definite contexts or [+definite, +specific], and the other article in that language such as *a* in English or 'se' in Samoan should be applied to nonspecific indefinite contexts or [-definite, -specific]. As a result of this, the learners will be expected to supply different morphological representations of articles with [+definite, +specific] contexts and with [-definite, -specific] contexts (e.g., *the* and *a* in English, respectively) no matter which setting of the ACP their article choice is based on.

In order to make this point clearer, the current study will use articles 'x' and 'y' instead of real articles in any languages to discuss here. That is, let's assume that in the definiteness setting of the ACP, the article 'x' will be applied to a [+definite] NP whereas the article 'y' will be applied to an [-definite] NP. In the specificity setting, the article 'x' will be used with a [+specific] NP whereas the article 'y'will be used with a [-specific] NP. In so doing, article grouping by the definiteness setting and by the specificity setting can be represented as in the table 2.3.

Table 2.3 Article Grouping Cross-Linguistically: Two-Article Languages

Article Grouping by Definiteness

	+definite	-definite
+specific	'x'	'y'
-specific		

Article Grouping by Specificity

	+definite	-definite
+specific	'x'	
-specific	'y'	

(Adapted from Ionin et al., 2004, p.13 and Ionin et al., 2008, p.6)

In the table 2.3 above, the definiteness setting takes the same article types as the specificity setting in the semantic contexts: either [+definite, +specific] or [-definite, -specific]. To elaborate, for the former context, the article 'x' will be employed while for the latter, the article 'y' will be employed in both settings (definiteness and specificity). Taking this as a basis, whether L2

learners base their article choice on the definiteness or specificity setting, they are expected to use one article such as the article 'x' with [+definite, +specific] NPs and another article such as the article 'y' with [-definite, -specific] NPs in the target language. This means that no matter which setting of the ACP the learners' article choice is based on, it seems relatively clear for them which article should be used with the NPs with no conflict between the semantic features: definiteness and specificity in the target language. This results from no conflict between article types (e.g., 'x' and 'y') of the definiteness setting and those of the specificity setting in the semantic contexts: [+definite, +specific] and [-definite, -specific], as demonstrated by the table 2.3. Hence, these contexts are unlikely to pose any problem of article choice for the learners, as Ionin et al, (2004) suggest.

However, as for the contexts with a conflict between the definiteness feature and the specificity feature, namely [+definite, -specific] and [-definite, +specific], there is a difference in grouping 'specific indefinites and nonspecific definites' (Ionin et al., 2004, p.18) between the two settings or article grouping types. As Ionin et al. state, 'whereas the definiteness setting groups specific indefinites with nonspecific indefinites and groups nonspecific definite with specific definite, the specificity setting does exactly the opposite' (p.18). Such a difference entails the different article types between the two settings in the contexts where definiteness and specificity are in conflict, and, thus, may cause L2 learners to commit article substitution errors, particularly when their article choice is based on the inappropriate setting for the target language. This is because the definiteness setting allows the different article types from the specificity setting in the [+definite, -specific] and [-definite, +specific] contexts.

As can be seen in the table 2.3, if the learners select an article on the basis of the definiteness setting, they will use the article 'x' in [+definite, -specific] contexts and the article 'y' in [-definite, +specific] contexts. On the contrary, if they choose an article on the basis of the specificity setting, they will employ the article 'y' in [+definite, -specific] contexts and the article 'x' in [-definite, +specific] contexts. In the case that the learners fluctuate between the two settings, these conflicting semantic contexts tend to be problematic for them in that each of the same conflicting contexts takes different article types between the two ACP settings.

The semantic contexts which have a conflict between the two possible article groupings (the definiteness and specificity settings) are ones that are represented as the striped patterns in the table 2.4. To be more precise, the contexts represented by the striped patterns are those which have a conflict between article types (e.g., 'x' versus 'y') of the definiteness setting and those of the specificity setting. These semantic contexts are [+definite, -specific] and [-definite, +specific].

Table 2.4 The Two Possible Article Groupings

	+definite	-definite
+specific	'x'	
-specific		'y'

(Adapted from Ionin et al., 2004, p.18)

In [+definite, -specific] contexts, if learners' selection of L2 articles is based on the definiteness setting of the ACP, the learners will supply the article 'x', but they will supply the article 'y' if their article selection is based on the specificity setting. Conversely, in [-definite, +specific] contexts, if their selecting of L2 articles is based on the definiteness setting, they will supply the article 'y' whereas they will supply the article 'x' if their article selection is based on the specificity setting. Therefore, L2 learners who are being in 'a stage of fluctuation' (Ionin et al., 2004, p. 17) should make article substitution errors, for example, substitution between the article 'x' and 'y' on the two strip-patterned contexts in the table 2.4. As regards the contexts in which definiteness and specificity are not in conflict, they should be able to supply a correct article even when their choice of L2 articles is not based on the appropriate ACP setting for the target language. This is because both settings take the same kinds of article in both [+definite, +specific] and [-definite, -specific] contexts. They, for instance, will employ the article 'x' in the former contexts and the article 'y' in the latter contexts, as shown in the non-conflicting contexts in the table 2.4.

Likewise, in the case of English articles, Ionin et al, 2004 hypothesised that L2 learners who are fluctuating between the two settings of ACP are likely to switch back and forth between different articles (i.e., *a* and *the*) in the conflicting contexts, or more precisely, the two strip-patterned contexts in the table 2.4. Nevertheless, the learners are hypothesized to be able to use an appropriate article in the other two contexts in the table 2.4, which are [+definite, +specific] and [-definite, -specific]. The following table illustrates these predictions related to English article choice by L2 learners.

Table 2.5 Predictions for Article Choice in L2 English

	+definite (Target: *the*)	-definite (Target: *a*)
+specific	correct use of *the*	overuse of *the*
-specific	overuse of *a*	correct use of *a*

(From Ionin et al., 2004, p.19)

In the light of the similar and different aspects between the definiteness and specificity settings of the ACP discussed above, the predictions for L2 English article use were proposed by Ionin et al. (2004) as displayed in the table 2.5. According to Ionin et al, it is predicted that among four semantic context types: [+definite, -specific], [-definite, +specific], [+definite, +specific], and [-definite, -specific], L2 learners will produce errors in English article use only in the context types where the semantic features of definiteness and specificity are in conflict, that is, [+definite, -specific] and [-definite, +specific] contexts. In these conflicting contexts, errors which the learners are hypothesised to commit are 'overuse of *a*' and 'overuse of *the*', respectively. In non-conflicting contexts: [+definite, +specific] and [-definite, -specific], they are predicted to correctly apply articles which are the definite article 'the' and the indefinite article *a*, respectively. The example below is from the example (18), which is repeated here as the example (35) to be an illustration of the four main semantic context types of English NPs. Some examples of conflicting semantic contexts are provided in (35b) and (35c) while those of non- conflicting semantic contexts are given in (35a) and (35d).

(35) a. [+definite, +specific] context, in which the target article is *the*

Joan wants to present the prize to **the winner of this race**, but he doesn't want to receive it from her.

b. [+definite, -specific] context, in which the target article is *the*

Joan wants to present the prize to **the winner of this race**, so she'll have to wait around till the race finishes.

c. [-definite, +specific] context, in which the target article is *a*

Sarah wants to talk to **a colleague of mine**, John Brown.

d. [-definite, -specific] context, in which the target article is *a*

Sarah wants to talk to **a colleague of mine**, but I don't know which one.

(Adapted from Momenzade et al., 2013, p.33)

The main reason why the Nominal Mapping Parameter (NMP), the Article Choice Parameter (ACP) and the Fluctuation Hypothesis (FH) are adopted in the current study is because these theoretical concepts are closely related to the linguistic structures examining in this study. Due to the fact that these theoretical notions involve second language acquisition, they are also appropriate to be applied to study the linguistic issues in L2 Thai learners of English.

To sum up, under the Article Choice Parameter (ACP) and the Fluctuation Hypothesis (FH), English L2 learners who speak an article-less native language are predicted that in their choice of English articles, the learners will access both ACP settings (the settings of definiteness and specificity), and they have initially not realised that English articles mark definiteness rather than specificity. They, then, fluctuate between the two settings of the ACP. In their fluctuation stage, in [+definite, -specific] and [-definite, +specific] contexts, the L2 learners are predicted that they are likely to produce article substitution errors (i.e., substituting *a* for *the* and *the* for *a*, respectively), or more specifically, overuse of *a* in [+definite, -specific] contexts and overuse of *the* in [-definite, +specific] contexts when they choose an English article. On the contrary, in [+definite, +specific] and [-definite, -specific] contexts, the learners are expected that when choosing an English article, they are likely to be able to use appropriate English articles (i.e., *the* and *a*, respectively), or more precisely, to produce correct use of *the* in [+definite, +specific] contexts and correct use of *a* in [-definite, +specific] contexts. Consequently, in accordance with the FH, L2 learners will experience difficulty with L2 English article use in the contexts where the semantic features: definiteness and specificity are in conflict while they will not face such a difficulty in the contexts without a conflict between the two semantic features.

Based upon the ACP and the FH, proposed by Ionin (2003) and Ionin et al. (2004), this research study, focusing on the investigation of the acquisition of L2 English articles by Thai learners, hence, will examine whether Thai learners' errors in L2 English article choice will have patterns as predicted by these theories of Ionin and Ionin et al. In this regard, this study hypothesises that the article errors committed by the Thai learners will have predictable patterns. That is, they will have L2 English article difficulty in the conflicting semantic contexts of articles, but will not have that in the non-conflicting semantic ones. To be more precise, it is predicted that for the Thai learners of English's error patterns, more article errors will be produced in the conflicting semantic contexts of articles: [+definite, -specific] or [-definite, +specific] than in the non-conflicting semantic ones: [+definite, +specific] or [-definite, -specific], based on Ionin's and Ionin et al.'s FH for English article choice by L2 learners as well as their predictions concerning article choice or article use patterns of L2 English learners whose L1s lack the article system.

Additionally, this study will investigate whether Thai learners of English fluctuate between the definiteness setting and the specificity setting of the ACP in their L2 English article choice. Under the ACP and the FH, it is hypothesized in the present study that the Thai learners will show fluctuation between the two ACP settings in the conflicting semantic contexts of articles by using the definite article *the* and the indefinite article *a* interchangeably some of the time whereas they will show correct use of the English articles in the non-conflicting semantic contexts. To clarify, it is predicted that the learners will indicate overuse of *a* in [+definite, -specific] contexts and

overuse of *the* in [-definite, +specific] contexts since they sometimes link indefinites to the feature [-specific] and definites to the feature [+specific], that is, fluctuate between the definiteness and specificity settings of the ACP.

In relation to L2 learners' English article use, whether the learners have more difficulty in acquiring the indefinite article in English (*a*) than the definite article (*the*) should be taken into account. As claimed by Lardiere (2004), to use definite articles in English, one does not need to take account of number and the count-mass distinction of NPs. For this reason, comparing to indefinite articles in English, definite ones are likely to be more 'featurally' (p.335) simple. According to this view of Lardiere, the current research will examine whether there is a difference between accuracy in the article choice by the Thai learners in definite (*the*) contexts and that in indefinite (*a*) contexts. In this respect, it is expected that the Thai learners will more accurately use *the* in [+definite] contexts than *a* in [-definite] contexts in that indefinite articles in English (*a*) seems to be more complicated to use than English definite articles, as Lardiere contends. In addition, considering the grater complexities of the usage of English article *a* than *the*, the learners may exhibit an article preference (i.e., prefer *the* to *a*) in their article use, especially whenever they are not certain about which article they should use. Such a preference may be the learners' specific strategy of using English articles and, thus, impact their L2 English article choice. In other words, such a preference may result in greater use or overuse of *the* than *a*. Therefore, this study will also explore whether the Thai learners have an article preference in their English article choice. Taking the more complicated usage of *a* than *the* into account, it is predicted that the Thai learners will have an article preference (i.e., prefer to use *the*) in their choice of English articles. That is, they are expected to more frequently use *the* than *a*, and, thus, to exhibit a higher rate of correct use and, at the same time, misuse of *the*, compared with *a* correct use and misuse rates.

2.4 Related L2 acquisition research studies

2.4.1 Previous studies

English articles and English NPs appear to consistently bring about acquisition difficulties for L2 learners. In particular, English article system has widely been acknowledged to be a major learning problem for L2 learners and, thus, has generally caused a teaching problem for L2 teachers. Many researchers have carried out studies relating to this issue to gain understanding and solve the problems faced by L2 learners when they acquire this problematic structure. Prominent research studies and recent research connected with L2 acquisition of English articles and NPs are reviewed in this section.

Among other studies, Ionin's (2003) and Ionin et al.'s (2004) research into the acquisition of L2 English articles, in which the Article Choice Parameter (ACP) and the Fluctuation Hypothesis (FH) were advocated, have widely been discussed and have been influential in subsequent research. The semantic context types in their elicitation task have been adapted or adopted in a wide variety of studies (e.g., Momenzade et al., 2014; Jian, 2013; Sarko, 2008; White, 2008; Zdorenko and Paradis, 2008 among many others). Consequently, their study seems to be one seminal study on L2 learners' English article acquisition.

Both Ionin (2003) and Ionin et al. (2004) carried out English article acquisition research on L2-English Russian and Korean speakers, whose L1s have no articles, and who lived in the U.S.A at the time of the studies. Ionin aimed to investigate the L2 learners' English article use and misuse and their setting of the ACP based on elicitation and production data. Correspondingly, Ionin et al. aimed to examine the L2 learners' ability to set to the ACP setting that was appropriate for English, and also the role of definiteness and specificity in their English article system acquisition. The crucial proposals by Ionin and Ionin et al. in their research work, as mentioned above, were the FH, involving L2 learners (1) fluctuating between possible UG parameter settings, 'including those not initiated in either the L1 and the L2' (Ionin, 2003, p.11) due to insufficient L2 input, or (2)obtaining L2 input that is sufficient for successfully setting the parameter to the appropriate setting for the target language, and the ACP, related to the view that languages with an article system differentiate the article system based on definiteness or on specificity.

The research methodology applied in the study by Ionin (2003) was similar to that by Ionin et al. (2004). That is, their participants were adult Russian and Korean L2 learners of English, who were their experimental groups, and their control groups were native speakers of English. In Ionin et al.'s research, the participants were 30 Russian and 40 Korean learners, and the control group in their study was comprised of fourteen native speakers of English. As for Ionin's data gathering, she conducted three empirical studies of the L2 learners' English article choice, each of which the participants differed in their number and/or in their L1s (i.e., only Russian speakers were collected data in one of the studies, but both Russian and Korean speakers in the other two). Furthermore, the main types of their research instruments were a written elicitation task (a forced-choice task consisting of forty short dialogues with the test items in which the participants had to select *a*, *the*, or *null* articles for each target DP across different semantic contexts) and a written production task (a written gap-filling task consisting of five questions which the participants had to answer by writing three to five sentences). The participants were asked to perform both task types to get data on their English article choice for their main investigation, as well as an English proficiency test (i.e., the Michigan test), which the experimental groups were asked to complete to classify them as beginner, intermediate, and advanced proficiency level groups.

The consistent semantic contexts of English articles in the elicitation task in both studies were five definite context types, two of which were [+definite, +specific] with or without scope interaction, two of which were [+definite, -specific] with or without scope interaction, and the other one of which was previous-mention, and five indefinite context types, two of which were [-definite, +specific] with or without scope interaction, two of which were [-definite, -specific] with or without scope interaction, and the other one of which was first-mention. In their data collection, the participants in the studies were instructed to supply or choose an English article: *a*, *the*, or the *null* article (–) that was appropriate for each target DP in the test items of the written elicitation task in order to obtain data, analysed to test their predictions of English article choice by L2 learners across different semantic contexts. For the written production task, the L2 learners were required to provide written responses to the questions presented in the task to collect the learners' article production data.

The data on article use by L2 English Russian-speaking and Korean-speaking learners from the elicitation studies of Ionin (2003) showed that the learners made the specificity distinction with definites, especially nonspecific definites, and with indefinites, especially specific indefinites. That is, it was found that they had no difficulty with L2 English article choice in the non-conflicting semantic contexts, but they fluctuated between the two settings of the ACP when choosing English articles in [+definite, -specific] and [-definite, +specific] contexts. In particular, article misuse in [-definite, +specific] contexts (i.e., *the* overuse with specific indefinites) was also indicated in the L2 learners' article production data. Ionin found that the fluctuation in English article use was more prevalent in the intermediate learners than in the advanced learners. The source of the specificity effects on [-article] L1 learners' L2 English article choice was argued by Ionin to be neither L1 transfer nor L2 input, but rather 'direct UG-acccess to semantic distinctions underlying article choice' (p.3).

The data reported in Ionin (2003) could be strongly confirmed by those in Ionin et al. (2004). In Ionin et al.'s study, the findings revealed that in their L2 acquisition of English articles, the L2 learners had access to both of the possible settings of the ACP (i.e., the definiteness setting and the specificity setting). It was argued that the learners lacked the concept of the appropriate ACP setting for the English article system, and they, then, fluctuated between the two ACP settings. Ionin et al. claimed correspondingly to Ionin that the learners' access to the specificity ACP setting, resulting in article errors in their English article choice, was not due to L1 transfer or L2 input, but due to UG access (i.e., 'direct access' (p.3) to 'the universal semantic distinctions of definiteness and specificity' (p.50) in L2 acquisition). This, however, seems inconsistent with the claim by Chen (2000), whose study is "Error analysis of some features of English article usage". He

conducted the study with Taiwanese L2 learners of English, who speak an article-less mother tongue, and claimed that the L2 learners' article errors stemmed from L1 transfer.

In the elicitation study, Ionin et al. (2004) indicated that substitution errors (i.e., overuse of 'the' with indefinite NPs and *a* with definite NPs) committed by the learners were generated by 'an (optional) association of *the* with the feature [+specific] rather than the feature [+definite]' (p.41), that is, using *the* to mark specificity. It was, for example, found in their study that both Russian and Korean learners incorrectly used *the* to a high degree in [-definite, +specific] contexts, but to a significantly low degree in [-definite, -specific] contexts. The results could provide evidence for their prediction of fluctuation in L2 learners' article choice. They, hence, suggested that in L2 acquisition, L2 learners' English article errors were not random (i.e., their article use was constrained by the definiteness and specificity features), but showed the learners' UG access (i.e., the learners had full access to the universal semantic features through UG). Moreover, the study found that the learners in the advanced group demonstrated a somewhat better performance than the other group, including in the conflicting semantic contexts.

Hence, the results by Ionin (2003) and Ionin et al. (2004) were dramatically compatible in that Russian and Korean L2 learners in their research work, whose L1s were article-less languages, systematically misused English articles by sometimes associating *the* with the [+specific] feature rather than [+definite]as well as *a* with the [-specific] feature rather than [-definite]. The former leads the L2 learners to commit errors of *the* overuse with specific indefinites while the latter *a* overuse with nonspecific definites. These error patterns provided support for their proposals, especially their prediction of fluctuation in L2 learners' English article choice. Based on these findings, it was concluded by Ionin and Ionin et al. that errors in the use of L2 English articles are systematic as they 'reflect L2 learners' access to the universal semantic distinctions of definiteness and specificity' (Ionin et al., 2004, p.50). In other words, Ionin and Ionin et al. proposed that the effects of specificity on English article errors, made by L2 learners from an article-less L1, are a consequence of their access to universal semantic factors (definiteness and specificity) through UG, not L1 transfer or L2 input. It was, furthermore, found in their research projects that proficiency level had an effect on English article choice by L2 learners.

Kaku (2006), whose study is "Second Language Learners' Use of English Articles: A Case Study of Native Speakers of Japanese", found a similar result to Ionin (2003) and Ionin et al. (2004) in terms of the effect of specificity on L2 learners' article use. Kaku conducted a case study to explore two intermediate and three advanced Japanese learners' English article acquisition by using an elicitation task based on that used in Ionin and Wexler's (2003) study. Her study, moreover, aimed to analyse the relationship between Japanese demonstratives (i.e., 'ano', which

means '[of] that over there', and which bears 'the feature [+referential] and [+definite]' (p. 68) as in the article *the* in English does) and English articles (i.e., *the*) by using a translation task in order to investigate feature re-assembly, proposed by Lardiere (2004), in L2 grammar of the Japanese learners. Sentences in her elicitation task were translated into Japanese, but the last sentences, where the target DPs for the learners choosing the articles: *a*, *the* or no article appeared, were in English. In contrast, the target sentences to be tested in her translation task, which were presented in English, were required to be translated into Japanese by the subjects.

In Kaku's (2006) elicitation task, the effect of referentiality, a semantic feature concerning the speakers' knowledge of the referent and speaker intention to refer to it, on the Japanese learners' article choice was found in the intermediate group's article use in indefinite contexts (i.e., indefinite referential contexts) while the advanced group could succeed in mastering English article system. That is, the intermediate learners linked their article use of *the* to referentiality whereas the advanced learners did not. This could be interpreted that referentiality affected article use by L2 learners and that L2 leaners' English proficiency levels played a role in their ability to use English articles. The findings in the study of Atay (2010), who examined the role of article semantics: definiteness and specificity in English article acquisition by elementary, intermediate and upper-intermediate English proficiency level groups of 120 Turkish learners, whose L1 does not have an article system, by application of a forced-choice elicitation task, could provide further evidence for such a role of proficiency levels. Data from the elicitation task, used for eliciting the learners' article choice of *a*/*an*, *the* or *null* article across four semantic contexts: [+definite, +specific], [+definite, -specific], [-definite, +specific], and [-definite, -specific], demonstrated that English article use of the learners developed as their English proficiency increased. His study also provided evidence for the FH since his Turkish participants, especially the intermediate group, committed high substitution errors in the conflicting contexts: [+definite, -specific] and [-definite, +specific]. These L2 acquisition research results can support the predictions in the present research that Thai learners will exhibit fluctuation in their article choice and that Thai learners' English article accuracy will increase in accordance with their English proficiency levels.

For the findings in Kaku's (2006) translation task, it revealed that the semantic features [+referential] and [+definite] in the Japanese demonstrative 'ano' differed from those in the English article *the* because the Japanese subjects did not use 'ano' in their Japanese translation of any test sentences, in which the English article *the* existed. She claimed that 'the variability in choosing the right article' of the learners resulted from their ongoing processing of 're-assembling the features that the English article system is made up of' (p. 73), not from their failure to set the relevant parameter to the target setting of the parameter. However, there were only two subjects

(one from the intermediate group and the other from the advanced group), taking part in the translation task. It may, hence, be stated that the data taken from a larger sample of participants would be worth exploring and would possibly show the different results or help to assert the findings found in Kaku's study. It is, for instance, possible to be found out in research with a greater number of participants that L2 learners' ability to set the parameter related to the article system has a major impact upon their achievement in choosing the appropriate article or to affirm the effect of re-assembling the related feature; that is, their article errors are a consequence of the learner not assembling the features correctly.

In addition to English article system acquisition by Russian and/or Korean learners, other researchers (e.g., Ionin et al., 2008; Ionin and Wexler, 2003; Kim and Lakshmanan, 2009; and Ko et al., 2008) reported consistent findings. That is, they also found the results that were consistent with those in the previously mentioned research, which looked at this issue in Russian and/or Korean speakers.

The work by Ionin and Wexler (2003) conducted an investigation of Russian speakers' article acquisition. Ionin and Wexler's research projects comprised two studies. One of the studies was undertaken with 12 Russian speakers by using a written translation-formatted task (a written task consisting of 56 Russian sentences appearing in the short story which the subjects were instructed to read and which they were assigned to translate into English by writing on the answer sheet) to collect data on their article use in definite and indefinite contexts with referentiality/non-referentiality and with *de re*/*de dicto* reading. The other one was carried out with 31 Russian speakers, using a fill-gap-formatted elicitation task with a variety of dialogues to elicit indefinite articles in different referential and non-referential contexts as well as definite articles in the contexts with or without relative clause modification ('RC-modification' (p.155)). The definition of the term "referentiality", given by Ionin and Wexler, seems to correspond to that of Ionin's (2003) and Ionin et al.'s (2004) "specificity" because both of the terms are involved in speaker knowledge of the referent in a NP and the speaker intention 'to refer to it' (Ionin and Wexler, 2003, p.150). The participants in both studies by Ionin and Wexler were those who lived in the U.S.A at the time of their testing (i.e., their mean residence in the U.S.A of one year for the translation study and four year for the elicitation study).

Both studies of Ionin and Wexler (2003) were aimed to investigate the use of L2 English articles, particularly the definite article *the*, in different semantic contexts of articles. Data from the translation task revealed that the Russian-speaking L2 learners frequently overused *the* with referential indefinites but infrequently with non-referential ones, regardless of the *de re*/*de dicto* reading. Elicitation data also indicated that the learners more frequently made the substitution of

the for *a* with referential indefinites than with non-referential indefinites and that most of them used *the* and *a* 'interchangeably' (p.157) in [-definite, +referential] contexts. The translation study and elicitation study, therefore, provided evidence that the L2 learners linked use of *the* to [+referential] (i.e., [+specific]) feature.

As can be seen, the findings in both studies of Ionin and Wexler (2003) were consistent in the sense of fluctuation. The empirical data reported in Ionin and Wexler showed that the Russian participants had English definite article difficulties. They had a high frequency of inaccurate use of *the* in [-definite] contexts with a conflict between definiteness and specificity or referentiality, [-definite, +specific], while they did not in *a* contexts without such a conflict, [-definite,-specific]. This could suggest that the L2 learners indicated fluctuation between definiteness and specificity when choosing English articles (i.e., 'between considering definiteness and referentiality the relevant distinction' (p.159) for choosing the articles) since it seems that the learners linked the article *the* to the specificity semantic feature.

The other three studies on English article acquisition (i.e., Ionin et al., 2008a; Kim and Lakshmanan, 2009; and Ko et al., 2008) were carried out with L2-English Korean speakers. Apart from Korean learners, Ionin et al. (2008a) and Ko et al. (2008) also investigated L2 English article choice by another group of L1-articleless learners (Russian for the former and Serbo-Croatian for the latter).

Kim and Lakshmanan (2009) aimed to examine Korean speakers' L2 processing of article acquisition by conducting 'a self-paced, real time on-line reading experiment' (p.97) and 'an off-line semantic acceptability rating experiment' (p.101). The participants were 19 university students in the U.S.A, divided into two different groups: intermediate (N=10) and advanced (N=9) group. Their findings conformed to Ionin's (2003) and Ionin et al.'s (2004) findings, involved in Korean learners. Kim and Lakshmanan's work found that both proficiency groups of the Korean learners fluctuated between definiteness and specificity settings of the ACP by connecting their use of definite articles with [+specific] feature, especially in the on-line experiment. Nevertheless, for the off-line performance of the advanced Korean learners, no fluctuation was found. This was argued by Kim and Lakshmanan that it might be due to the task effect in that unlike the on-line task, the off-line task allowed the learners to read the tested items as frequently as needed and to change 'their initial hypothesis concerning the ACP setting' (p.111).

Like Ionin's (2003) and Ionin et al.'s (2004) research, Ionin et al. (2008a) aimed to investigate article semantics in L2 acquisition by adult Russian and Korean speakers learning English. However, the main goal of the study by Ionin et al. (2008a) was examining their article use and article omission based on unconscious knowledge about English articles of the L2 learners by the

application of a written narrative task. This production task enabled the researchers to collect data on the participants' unconscious knowledge of English articles since in this kind of task, it was not clear to the participants that their use of English articles was being tested. In the narrative study, the participants, who were 30 Russian and 40 Korean learners of L2 English, were asked to perform the narrative task by making a written response, comprising from three to six English sentences, to each of the five English questions that were present in the task.

The data from the narrative task reported in Ionin et al. (2008a) revealed that much higher errors of *the* overuse were made with [+specific] indefinites than with [-specific] ones by the L2 learners and that correct use of *the* was demonstrated in [+definite, +specific] contexts. These results seem to be considerably compatible with those of the studies with the L2 learners from the same L1 backgrounds (i.e., Russian and/or Korean) discussed above, especially in terms of the specificity effects on their L2 English article use. This is because it can be observed that the specificity feature influenced the Russian and Korean speakers' English article choice. For the article use in [+definite, -specific] contexts, it was hardly present in the narrative data, so article use or misuse in this context type could not be determined. Concerning article omission, the narrative data confirmed their prediction for English article omission in the L2 learners' English production. It was found that the learners committed more article omission errors in [-definite] singular contexts than in [+definite] ones. The learners tended to omit articles in the contexts where the semantic information such as the presupposition of uniqueness was not clearly given. Based on their findings, it is worth examining whether the Thai participants, whose L1 lacks an article system, in the current study will show similar performance on article omission errors in their L2 English production data.

Ko et al.'s (2008) investigation into English article acquisition aimed at studying the effects of different article semantics (specificity and partitivity in particular) on article choice across different indefinite contexts by L2 learners with article-less L1s, namely Serbo-Croatian and Korean. Ko et al. suggested that even though English does not overtly encode the semantic feature of partitivity at the morphological level through the article system as definiteness, this semantic feature is likely to involve L2 learners' article choice. Partitivity is described by Ko et al. that it is 'a sub-type of presuppositionality' (p.120) and refers to an indefinite DP that is a member of a set that the speaker has mentioned in the previous discourse and assumes that the hearer has a shared presupposition of the existence of the indefinite DP; that is, this DP is [+partitive, -definite]. A [-partitive, -definite] DP, then, refers to an indefinite DP which is not a member of a set previously introduced in the discourse, and of which the speaker and the hearer do not have a shared presupposition of the existence.

The participants were 30 advanced Serbo-Croatian and 20 Korean, consisting of 16 advanced and 4 intermediate. They were instructed to choose an appropriate article (*the*, *a*, or -) for each of the target DPs in the items tested in a forced choice elicitation task. There were four context types, in which Ko et al. (2008) aimed to test the specificity and partitivity effects on the L2 learners' English article choice. These contexts were '[-definite, +partitive, +specific], [-definite, +partitive, -specific], [-definite, -partitive, +specific] and [-definite, -partitive, -specific]' (p.123).

The elicitation data in Ko et al. (2008) showed that both L1 groups most frequently overused *the* with [+partitive, +specific] DPs. This could suggest that the errors of *the* overuse with indefinites committed by L2 learners were a consequence of the specificity feature and, especially, the partitivity feature. Both Serbo-Croatian and Korean learners tended to overuse *the* more frequently in [+partitive] contexts than in [-partitive] contexts. This could argue for partitivity effects in the learners' article choice; that is, both groups linked *the* to the partitivity feature (i.e., [+partive] feature). In elicitation data, the strong effect of specificity was, however, found in article choice by the Korean group while such an effect was not found in Serbo-Croatian speakers. Since the Serbo-Croatian group was more advanced in English proficiency than the Korean group and seemed to be affected by partitivity, but not by specificity in their article use, Ko et al. claimed that the effect of partitivity was more persistent than the effect of specificity in leading the learners to make English article errors in their L2 article choice. As can be seen, the findings by Ko et al. provided evidence for the view suggested in previous literature (e.g., Ionin, 2003; and Ionin et al., 2004, among others) that L2 article errors are not random, but they reflect that L2 learners have UG-access to semantic features related to article choice.

Apart from literature discussed above, there have been many research studies into the acquisition of articles in L2 English undertaken on L2 learners from various L1 backgrounds. Some research focused on L2 learners from article-less L1s while others included L2 learners whose L1s have an article system in their research. Moreover, some of the studies examined L2 English article acquisition by child and adult learners.

With regard to the studies of L2 acquisition of English articles by learners with an L1 with articles and learners with an article-less L1, one of them is the research by Snape (2006). In his study on the L2 acquisition of determiner phrases (DP) in English, Snape used Japanese and Spanish L2 learners as his experimental groups and English native speakers as his control group. For the experimental groups, the former were from article-less L1 background whereas the latter from L1 with an article system, based on the definiteness setting, and with plural marking as English. There were three main types of research instruments, which were a grammaticality judgment task, used for examining the L2 learners' knowledge of the English DP, a force choice elicitation

task and a production task. The two latter were employed to collect data on the L2 learners' article choice. The semantic article contexts which were investigated in his study were [+definite, +specific], [+definite, -specific], [-definite, +specific] and [-definite, -specific] singular and plural contexts. The participants were requested to select *the*, *a*, *an* or ø (a null article) for each of the omitted articles which are the target DPs in the forced choice elicitation task, represented by a blank space.

His research supported earlier studies, for example, by Ionin and Wexler (2003), by Ionin et al. (2004), and, especially, by Reid et al. (2006, cited in Snape et al., 2006, p.134), who researched Spanish and Japanese speakers' English article acquisition and by Hawkins et al. (2006), who investigated this issue in Greek and Japanese speakers. For the Japanese participants, the studies by Snape, by Reid et al., and by Hawkins et al. found similar results in that the Japanese L2 learners showed fluctuation between definiteness and specificity when using English articles in the conflicting semantic contexts, particularly [-definite, +specific] contexts. Snape asserted that since Japanese has no articles, the fluctuation in their article choice was due to 'the Japanese L2 learners having full access to UG's feature inventory and selecting the wrong features for articles in English' (p.280) and due to a lack of knowledge about 'the syntax-pragmatic interface' (p.281) or article use in discourse. Such a lack was claimed by Snape that it was persistent in leading even the advanced Japanese learners to commit English article errors.

As for the participants from L1s with an article system (i.e., Spanish and Greek), Hawkins et al. (2006) reported that their Greek participants did not show such a fluctuation due to the effect of L1 transfer in that they frequently used *a* to encode [-definite] feature and *the* to mark [+definite] feature as a consequence of their L1, whose article system falls into the same definiteness setting of the ACP, as English articles. Likewise, regarding the behaviour of Spanish learners in the studies, the data from a forced choice elicitation task in Reid et al. (2006) indicated that their Spanish participants did not fluctuate between definiteness and specificity since their article choice were substantially target-like. For Snape (2006), he found that compared to the Japanese participants, the Spanish participants tended to present more accuracy and less fluctuation (i.e., be much more target-like) in their English article use. He claimed that no fluctuation found in the Spanish learners was possibly because of 'full transfer from the L1' (p.280). That is, they probably transferred their L1 Spanish, whose article system is based on the definiteness setting as English's, to English. However, it was found in Snape's study that the Spanish participants with lower English proficiency levels seemed to fluctuate between the two semantic features in that the lower English proficiency Spanish speakers and, particularly, the Japanese speakers overused *the* in [-definite, +specific] contexts. As can be noted, the findings of Hawkins et al. (2006), Reid et al. (2006), and Snape (2006) were consistent in the sense of fluctuation found in Japanese L2

learners of English and no fluctuation found in L2 learners, who have an article system in their L1 (i.e., Greek for Hawkins et al.; and Spanish for Reid et al. and Snape).

Other research work conducted to examine English article acquisition by L2 learners with and without an article system in their L1 is that by Ionin et al. (2008b) and by Zdorenko and Paradis (2008). Zdorenko and Paradis researched into child L2 learners from article-less L1 backgrounds (i.e., Chinese, Korean, and Japanese) and those from L1s with an article system (i.e., Spanish, Romanian, and Arabic), whereas Ionin et al. into adult L2 speakers of an article-less L1, namely Russian, and those of an L1 with articles, namely Spanish.

Zdorenko and Paradis (2008) aimed to examine the effect of L1 transfer and fluctuation in the acquisition of articles by 17 L2 English child learners, living in Canada. The data were collected five times over nearly three years. In data gathering, the children were instructed to tell the stories based on the two picture books presented to them in order to elicit their English article use in narratives. As for Ionin et al. (2008b), they aimed to investigate the effect of L1 transfer, L2 input, and UG in the use of L2 English articles by 23 adult Russian learners, living in the U.S.A at the time of their study and 24 adult Spanish learners, living in Mexico. To elicit the participants' use of English articles in different singular count noun contexts, they asked the Russian and Spanish learners to take an elicitation task by filling in the blank in each item with any word the learners considered suitable for each blank. Also, the participants were asked to take a proficiency test for dividing them into three different groups: beginner, intermediate and advanced.

The data from child L2 learners' oral storytelling in Zdorenko and Paradis (2008) showed that both groups of child learners (i.e., a group of learners from L1s with articles and without articles) overused 'the' with specific indefinite NPs. This means that the child L2 learners, even in the group with L1s with articles, demonstrated fluctuation between definiteness and specificity in their article use. Based on these findings, it was seen that fluctuation overrode L1 transfer. This was argued by Zdorenko and Paradis that in a different way from adult L2 acquisition, 'fluctuation is a developmental process that overrides transfer in child L2 acquisition of English articles' (p.227), and child L2 acquisition is affected by UG access rather than by L1 transfer. Furthermore, Zdorenko and Paradis found that the article-less L1 group more frequently made omission errors than the other group (L1s with articles) at the early acquisition stages. This means that L1 transfer effect (i.e., the effect of a lack of articles in L1s for the article-less L1 group) occurred at the early stages of L2 acquisition. Importantly, it was also found that in every stage of acquisition, both child groups performed better in the use of *the* with definite NPs than *a* with indefinite NPs. The similar result was found by Lu (2001), whose study was on L2-English article acquisition by 55 L1-Chinese adult learners (advanced, upper-intermediate, and lower-intermediate groups) by using a

multiple-choice cloze test as her data collection instrument. Lu's data from the target like use measure indicated that the Chinese learners at every English proficiency level more correctly used *the* than *a*. This may be claimed that for L2 learners, the use of the definite article *the* seems to be less complicated than the use of the indefinite article *a*, as argued by Lardiere (2004). These findings can provide support for the prediction in the present study that Thai L2 learners of English will more accurately use *the* in definite contexts than *a* in indefinite contexts.

Regarding the work by Ionin et al. (2008b), the same results of Russian speakers as in Ionin (2003) and in Ionin et al. (2004) were found in Ionin et al. (2008b). That is, Ionin et al. (2008b) also found specificity effects in their Russian participants' article use in that they overused *the* and *a* in the confliction contexts (i.e., specific indefinite for *the*; and nonspecific definite for *a*), whereas they showed high article accuracy in the non-conflicting contexts. These findings of the Russian speakers were argued by Ionin et al. (2008b) that since Russian has no articles, the learners could not base their English article choice on article semantics in their L1. Instead, their English article choice involved UG and input in that UG provided them with possible article choice patterns 'in a natural language', namely definiteness and specificity, and they fluctuated between 'the UG-provided possibility', resulting in specificity effects in their article use, until the input helped them to know that 'only one of these patterns is appropriate for English' (p.574). In other words, English articles are differentiated on the basis of definiteness only, not specificity. They suggested that such a fluctuation was because of 'the subtlety of discourse-based triggers for article choice' (p.574). Additionally, the effect of proficiency on English article use was also found: the Russian participants with higher English proficiency in Ionin et al. (2008b) fluctuated less between definiteness and specificity than the lesser proficient ones.

For the Spanish learners, they made high omission errors in a particular test item, carrying specific definite reading, because in their L1, article omission is needed in certain contexts. However, overall, the Spanish participants' performance on English article choice was quite native-like. The results showed that specificity effects were not seen in their use of English articles; they chose English article on the basis of definiteness. This was consistent with the results of the Spanish participants in the research studies of Reid et al. (2006), and Snape (2006) that no fluctuation was exhibited in English article choice by the Spanish learners, whose L1 has an article system, based on the definiteness setting like English. Hence, those results of the Spanish speakers were claimed by Ionin et al. (2008b) that 'L1 transfer overrides fluctuation' (p.569) since the Spanish learners' differentiating between 'a' and 'the' on the basis of definiteness were likely to result from the learners transferring the article semantics from their L1-Spanish to their L2-English articles. Crucially, it was concluded by Ionin et al. (2008b) that L1 transfer, L2 input, and UG played a role in the use of L2 English articles.

The English article acquisition research into child and adult L2 learners is, for example, that by Ionin et al. (2009) and by Miyamoto and Yamada (2011). Ionin et al. (2009) undertook research work on L2 acquisition of English article semantics by 18 child and 21 adult learners from an L1 without articles, namely Russian, using a written elicitation task. The aim of the study was to compare article use by article-less L1 child and adult L2 learners to look at whether they made the same article errors: overuse of *the* in specific indefinite NPs and overuse of *a* in nonspecific definite NPs. In the elicitation task, employed to elicit their article use across four different singular contexts: [+definite, +specific], [+definite, -specific], [-definite, +specific], and [-definite, -specific], the Russian child and adult participants were asked to fill in the blank in the target sentence of each item with any word the learners considered suitable for each of the blanks.

The data from the elicitation task in Ionin et al. (2009) showed that both child and adult Russian learners demonstrated 'sensitivity to definiteness as well as specificity' (p.337). Both child and adult learners fluctuated between definiteness and specificity and were, hence, impacted by the specificity factor in their use of English articles. Nonetheless, while the specificity effects were found in the adult learners' English article use with both definite and indefinite NPs, for the child learners, such an effect was seen more in their use of English articles with indefinite NPs than with definite NPs. To clarify, it was shown in Ionin et al. (2009) that the [-article] L1 adult L2 learners overused *the* in [-definite, +specific] contexts and overused *a* in [+definite, -specific] contexts while the [-article] L1 children frequently committed the error of *the* overuse in [-definite, +specific] contexts, but rarely overused *a* in [+definite, -specific]. Ionin et al. (2009) argued that both child and adult L2 learners have UG access to the definiteness and specificity semantics. However, the adult learners also apply an explicit strategy, related to "explicitly stated knowledge", proposed by Trenkic (2008), to their article choice by considering whether the speaker has a particular referent in mind. *the* will be used with a particular referent, otherwise *a* will be used in the case of speaker having no particular referent in mind.

Miyamoto and Yamada (2011) conducted a similar study to Ionin et al. (2009), but with different L1 participants. Miyamoto and Yamada's work was aimed at examining whether L2 English article errors made by article-less L1 child and adult Japanese learners were the same. To elaborate, the main goal of their study was investigating whether the two Japanese groups (11 child learners and 19 adult learners) made the same article errors of *the* overuse with specific indefinite NPs and *a* overuse with nonspecific definite NPs. A forced-choice elicitation task was applied to collect data. The participants were asked to choose *a*, *the*, or a *null* article for each target singular noun context, appearing in each test item. The context types employed in Miyamoto and Yamada's elicitation task were consistent with those used in Ionin et al.'s (2009) elicitation task.

Miyamoto and Yamada's (2011) results for the child L2 learners corresponded to those of Ionin et al. (2009) and Zdorenko and Paradis (2008) in that the article-less L1 child L2 learners in their studies exhibited fluctuation between definiteness and specificity options in their English article use. Specifically, the [-article] L1 children were found that they overused *the* with [-definite, +specific] NPs, whereas they accurately used English articles in other contexts, especially [+definite] contexts. Concerning the adult L2 learners in Miyamoto and Yamada's study, fluctuation was found in their English article choice, but unlike the child Japanese learners, the adult Japanese learners overused *a* with [+definite, -specific] NPs. Miyamoto and Yamada concluded that both child and adult L2 learners had access to universal semantic features, but the adult learners also employed an explicit strategy which Trenkic (2008) proposes in their use of articles, as Ionin et al. (2009) argued.

Even though the FH is supported by various studies, as can be seen in literature above, some studies, for instance, Momenzade et al. (2014), Snape et al. (2006) and Trenkic (2008), provide some evidence against the FH. In the case of learners from L1 with a definiteness-based article system, namely Persian, Momenzado et al.'s research on 43 Persian learners' English article choice, using a grammaticality judgment task and a translation task, found some evidence against the FH. Based on the FH and the ACP, it is expected that L2 learners with articles in their L1 are likely to show positive L1 transfer effects in their article use and hence no fluctuation. Nevertheless, the data in Momenzada et al. indicated that the Persian participants had difficulties with both *a* and, particularly, *the*. It was also shown that though in their use of English articles, the Persian learners did not fluctuate between definiteness and specificity, their L1 did not have a positive effect; they made high English article omission errors, rather than article misuse, in obligatory contexts, especially in [-definite, +specific] contexts, 'which is not predicted by the FH' (p.40).

Snape et al. (2006) compared acquisition of English articles by intermediate L2 learners from different L1 backgrounds (14 Japanese, 8 Mandarin Chinese, and 14 Spanish), studying in a university in the UK at the time of testing. The data was collected by using a forced choice elicitation task. As predicted, no fluctuation was found in elicitation data from the Spanish participants. In the case of the article-less L1 learners of L2 English, the results showed that in English article use, the Japanese learners fluctuated between definiteness and specificity in the conflicting semantic contexts: [+definite, -specific] and [-definite, +specific], whereas the Chinese learners did not. According to the FH, the learners without articles in their L1 are predicted that they will show fluctuation in their English article choice in the conflicting semantic contexts. Therefore, the results for the Japanese learners provide support for the FH while those for the Chinese learners provide evidence against it. The underlying reason for the Chinese learners'

greater accurate English article use was argued by Snape et al. that 'Mandarin Chinese is (well) ahead of Japanese in the process of grammaticalization of the universal cognitive category of identifiability and in the development of definiteness as a grammatical category' (p.138), that is, *yi* 'one' and *nei* 'that' in Chinese, being nearly developed as full grammaticalization of indefiniteness and definiteness respective. This claim could be supported by Crosthwaite's (2016) corpus-based data on English article use by Mandarin Chinese learners. The Chinese learners were found to have no problem with English article use, and it was argued that it was due to the fact that Chinese has 'an article-like system' (p.33) or certain forms that seem to function as grammaticalization of indefiniteness/definiteness.

In Trenkic's (2008) study, English article choice by L1 Mandarin Chinese bilingual learners of L2 English was examined. The behaviour of the Chinese participants in her study indicated the effect of an explicit strategy: explicitly stated or denied knowledge of the reference; that is, the factor of the familiarity with the reference was applied to the L2 learners' English article choice. It was found by Trenkic that the learners overused *the* in indefinite specific contexts to a lower degree when familiarity of the entity being referred to was explicitly denied by the speaker whereas they committed significantly *the* overuse in indefinite specific contexts when such familiarity was explicitly stated. Based on this result, the learners seemed to significantly associate their article use with the factor of explicitly stated knowledge rather than specificity. This provides evidence against the FH.

In the Thai setting, there have been few research studies on the acquisition of English articles, especially those explored through a UG framework. More specifically, there are two studies into this issue in the Thai context in a UG point of view. One is the study by Pongpairoj (2008), and the other is Winward's (2012) work. Both research studies investigated Thai learners, who all studied in an Internation/English programme. Their Thai participants, then, were highly exposed to English as the main medium of instruction in their classes was English. Moreover, most of their Thai participants were those who had stayed and studied for a significant period of time in a native English speaking country as part of their programme requirement. Considering these characteristics of them, the findings in these two researches can possibly not be truly applied to or explain common Thai learners' English article acquisition. This is because most Thai learners are those who study their disciplines in an ordinary programme, where Thai is used as the main medium of instruction and, then, where Thai learners are exposed to English to a low degree. Therefore, the results from these studies have their limitations, for instance, they are unlikely to be able to generalise about the Thai learners in general concerning their English article acquisition; that is, they tend not to truly serve as an explanation of the English article difficulties which common Thai learners experience.

For the study by Pongpairoj (2008), her study was aimed at investigating L2 English article production by Thai learners and French learners in order to examine their article omission errors in their article production in different contexts, which were the contexts in the construction "Article + (Adjective) + Noun", the contexts with first-mentioned or second-mentioned NPs, and the NPs with more or less salient referents. She, moreover, investigated her participants' article substitution errors in their article use in [+definite; -specific] and [-definite; +specific] contexts through the use of a task in the fill-in-the-gap format. For the results involved in the substitution errors, she found that Thai learners predominantly performed substitution of *the* for *a* when they were familiar with the referents and *a* for *the* when they were not familiar with the referents. This indicated that their article substitution errors resulted from their familiarity/nonfamiliarity with the referents rather than definiteness/indefiniteness or specificity/nonspecificity of the referents. The results of her study, therefore, seemed to be inconsistent with the predictions for L2 English article choice, proposed by Ionin et al. (2004).

However, for Winward (2012), his study was aimed to test the predictions for L2 English article choice, suggested by Ionin et al. (2004). The participants in his study were asked to complete a written forced choice elicitation task. The results in his research into the L2 English article use by Thai learners provided support for the predictions for L2 English article choice, proposed by Ionin et al. (2004) as their Thai participants showed more overuse of *the* and *a* in NPs with conflicting article semantic contexts.

In summary, for the research gaps addressed in this study, the current study focuses on the Thai learners with low levels of L2 English exposure in instructional settings while as can be seen, other studies, that is, Pongpairoj's (2008) and Winward's (2012) studies on the Thai learners with high L2 English exposure levels. This study could help to see whether or not the lower L2 English exposure level Thai learners' English article use patterns would differ from those of the learners with the higher levels found in the previous studies. Their English article patterns might be different as a consequence of their different levels of L2 input exposure or not be different even though they have different levels of English exposure as in their English article choice, the learners with different English exposure levels might demonstrate the similar article accuracy or error patterns. They, for example, might use correct English articles or misuse them in the similar semantic contexts.

Moreover, there seem to be not much research work focusing on L2 learners' performance on differentiation between count and mass English nouns. The crucial research aiming for this is that of Snape (2006), who carried out a study to investigate L1-Japanese and L1-Spanish learners' knowledge of the L2 English count-mass distinction. Under Chierchia's (1998) Nominal Mapping

Parameter (NMP), Japanese has no count-mass distinction whereas Spanish has count NPs. They are, thus, based on different settings of the NMP (i.e., the [+arg, -pred] setting for Japanese; and [-arg, +pred] for Spanish). Even so, both Japanese and Spanish learners were found that they could acquire the count-mass distinction in L2 English as they demonstrated high performance in their differentiation of English count and mass NPs. These findings can support the prediction in the current study that Thai learners, whose L1 has no count-mass distinction, can reset the NMP to the target setting. Nonetheless, the Japanese and Spanish participants in Snape tended to have more difficulties with mass NPs. This was expected in the Spanish group, not in the Japanese group with no count nouns in their L1; that is, Snape expected that Japanese would face the problem of acquiring English count NPs. For the Spanish learners, Snape suggested that they seemed to transfer their L1, having count NPs, to L2 English since they more inaccurately regarded mass as count NPs, compared with the Japanese learners. Based on the findings on the Japanese learners without count-mass distinction in L1, it would be worth exploring whether Thai L2 learners with L1 that also lacks such a distinction will show the similar performance in distinguishing of count and mass NPs in English, as seen in the Japanese learners.

2.4.2 The main findings of previous studies and the findings related to the predictions for this study

The main findings of previous studies and the findings related to the predictions for this study are summarized in the following. Most of the findings of the earlier L2 literature concerning English article acquisition indicated that L2 learners from article-less L1 backgrounds experienced difficulty in using both definite and indefinite English articles, leading to two main types of article errors: overuse of *a* in nonspecific definite contexts and, particularly, overuse of *the* in specific indefinite contexts. It was argued by researchers (e.g., Ionin, 2003; Ionin et al. 2004; 2008a; 2008b) that L2 learners' article errors were not random since those substitution errors made by the L2 learners without articles in their L1s were a consequence of the learners' UG access to possible semantic factors related to article choice (definiteness and specificity). However, they, initially, did not know on which one of 'the UG-provided possibility' (Ionin et al., 2008b, p.574) they should base their English article choice, resulting in the fluctuation between the two semantic features in their article choice and, then, making the specificity distinction with English articles some of the time. That is, the learners systematically misused English articles by sometimes associating *the* with the [+specific] feature rather than [+definite], leading to errors of *the* overuse with specific indefinites, as well as *a* with the [-specific] feature rather than [-definite], resulting in *a* overuse with nonspecific definites. These article error patterns, coming from specificity effects and resulting in overuse of *the* or *a* in the conflicting semantic contexts, in

article-less L1 learners of L2 English were reported in many previous literatures (e.g. Atay, 2010; Hawkin et al., 2006; Kako, 2006; Kim and Laksmanan, 2009; Miyamoto and Yamada, 2011; Reid et al., 2006; Snape, 2006; Zdorenko and Paradis, 2008). These studies provided support for the claim that L2 learners' article errors are systematic and for the prediction of fluctuation in L2 learners' English article choice, proposed by Ionin (2003) and Ionin et al. (2004). It is pointed out by Ionin (2003) and Ionin et al. (2004; 2008b) that such a fluctuation will exist until the discourse-based input 'triggers for article choice' (Ionin et al., 2008b, p.574) lead the learners to know that English articles are divided on the basis of definiteness only, not specificity. Snape (2006) argued in his study that the fluctuation in L2 English learners' article use was a consequence of the learners lacking knowledge about the syntax-pragmatic interface or article use in discourse. Similarly, Ionin et al. (2004; 2008b) asserted that such a fluctuation was because of 'the subtlety of discourse-based triggers for article choice' (Ionin et al., 2008b, p.574). Hence, in the absence of L1 transfer, UG and input triggers seem to be the main factors that are related to L2 acquisition of English articles, as clearly shown in the findings of Ionin et al. (2008b). In addition, when comparing article-less L1 adult L2 learners to child L2 learners, the findings in the research work, for example, by Ionin et al. (2009), Miyamoto and Yamada (2011) and Zdorenko and Paradis (2008) indicated that there seemed to be some similarities between them in that both child and adult L2 learners exhibited fluctuation between definiteness and specificity options in their English article use; both of the [-article] L1 groups' L2 English article use was affected by the specificity feature. However, it was found that the adult L2 learners misused articles or made the specificity distinction with both definite and indefinite NPs (i.e., nonspecific definite and specific indefinite, respectively), whereas the child L2 learners only with specific indefinite contexts. These L2 acquisition research results do not seem to be task specific, and those, especially concerning adult L2 learners, can support the predictions in the present research that Thai learners' article errors will have non-random patterns and that the learners will exhibit fluctuation in their article choice.

In reference to English article accuracy, it was revealed in some studies (e.g., Lu, 2001; Zdorenko and Paradis, 2008) that L2 learners performed better in the use of *the* than *a*. This may be claimed that for L2 learners, the use of the definite article *the* seems to be less complicated than the use of the indefinite article *a*, as Lardiere (2004) discussed. As regards a role for proficiency levels, it was found by many researchers (e.g. Atay, 2010; Ionin, 2003; Ionin et al., 2004;2008b; Kako, 2006) that proficiency level had an effect on English article choice by L2 learners. The data in the studies showed that English article use of the L2 learners developed as their English proficiency increased; that is, L2 learners with higher English proficiency demonstrated a somewhat better performance than those with lower English proficiency. These findings can provide support for the prediction in this study that Thai L2 learners of English will more accurately use *the* in definite contexts than *a*

in indefinite contexts, as well as that Thai learners' English article accuracy will increase in accordance with their English proficiency levels.

Additionally, Snape's (2006) data on knowledge about a count-mass distinction in English of the speakers of Japanese, a language without such a distinction, indicated that the Japanese learners' performance in differentiating between English count and mass nouns was high. He concluded that the Japanese participants succeeded in acquiring the English count-mass distinction. These findings can support the prediction in the current study that Thai learners, whose L1 has no count-mass distinction, can reset the NMP to the target setting.

In relation to the main findings in the research work carried out to examine English article acquisition by adult L2 learners with an article system in their L1, it seems that the data in several previous studies (e.g., Hawkins et al., 2006; Ionin et al., 2008b; Reid et al., 2006; Snape, 2006) showed consistent results, irrespective of task type. The results revealed that L2 learners from [+article] L1 backgrounds showed more native-like use of English articles, compared to L2 learners from [-article] L1 backgrounds. The main source of such a native-likeness in the [+article] L1 learners was argued that it was L1 transfer. More specifically, in the data of the research into English article choice by Adult L2 learners from L1s with articles, for instance, Greek in Hawkins et al. (2006) and Spanish in Ionin et al. (2008b); Reid et al. (2006); and Snape (2006), it was seen that L1 transfer overrode fluctuation, whereas Zdorenko and Paradis (2008), who researched into child L2 learners from L1s with an article system (i.e., Spanish, Romanian, and Arabic), found in the child learners' article use that fluctuation overrode L1 transfer. In Zdorenko and Paradis's study, the [+article] L1 child learners demonstrated fluctuation between definiteness and specificity in their article use: they overused *the* in specific indefinite contexts. Zdorenko and Paradis argued that 'fluctuation is a developmental process that overrides transfer in child L2 acquisition of English articles' (p.227), and child L2 acquisition is affected by UG access rather than by L1 transfer. Conversely, adult L2 learners were reported in various research studies (e.g., Hawkins et al., 2006; Ionin et al., 2008b ; Reid et al., 2006; Snape, 2006) that they showed native-likeness: no specificity effects and, thus, no fluctuation were found in their English article use; the learners differentiated between *a* and *the* on the basis of definiteness. These were claimed by the researchers such as Ionin et al. (2008b) and Snape (2006) that it was probably due to the fact that the [+article] L1 learners (e.g., Spanish) transferred their L1 knowledge of the article semantic system, based on the definiteness setting, like English, to their L2 acquisition of the English article system. In other words, the [+article] L1 learners did not demonstrate fluctuation between definiteness and specificity in their English article use because of the L1 transfer effect, suggesting that L1 transfer overrides fluctuation in the [+article] L1 adult learners' L2 acquisition of English articles. Hence, there seems to be some differences between child and adult L2 English article

acquisition mainly in that as Zdorenko and Paradis argued, child L2 acquisition is affected by UG access rather than by L1 transfer. In the acquisition of English articles by L2 learners, it may be concluded that L1 transfer, L2 input, and UG are sources of knowledge that are concerned with L2 English article acquisition and play a role in the use of L2 English articles, as pointed out by Ionin et al. (2008b).

2.4.3 Summary of research gap

As discussed previously, the current research is based within a UG framework for investigating parameter setting or resetting in L2 acquisition. The main aim is to examine the acquisition of L2 English article system and NPs by Thai learners. It may be noted that the research findings of the research projects, reviewed above, are the basis of the present investigation. Markedly, the research studies, based on a UG approach (parameter setting), along with the linguistic interface concepts in the case of article acquisition, related to the semantic features: definiteness and specificity, to study the linguistic problem under investigation are considerably rare in the Thai context. It is, consequently, important to extend studies based in the theoretical framework to other language pairs. Additionally, in the Thai context, more research is needed into English article acquisition by Thai learners as the findings of earlier research (Pongpairoj, 2008; Winward, 2012) into this issue in the Thai setting do not seem to be able to truly serve as an explanation of the English article difficulties which common Thai learners usually experience. More crucially, most research studies on L2 acquisition of English NPs, especially relating to articles, were carried out into L2 learners with significant L2 input, particularly those who were exposed to L2 to a considerable degree. Studies focusing on L2 learners with limited L2 input, especially those who have been exposed to L2 at a limited level, that is, mostly inside their L2 classes, and those who have never stayed in a native-L2 speaking country for a relative period of time and no direct L1 transfer (i.e., no article system in their L1), are rare. It is, thus, worthwhile conducting L2 acquisition research on learners with limited L2 input exposure. This study of Thai learners could bridge such a gap. In particular, data from limited L2 input exposure Thai learners in the current study should lead to beneficial information which shed more light on the role of input in terms of whether and/or how input results in parameter setting or resetting. In other words, this study allows the researcher to examine whether learners with less L2 input exposure than naturalistic ones could ever set or reset the parameter (i.e., the ACP or the NMP).

According to Ionin et al. (2008b), Russian learners who have been in an English-speaking country (i.e., the U.S.A) for a significant period of time and more frequently exposed to input demonstrate lower performance on their English article choice than [+article] L1 Spanish learners who have had less input (learning English in their English classroom in the Spanish context). This exhibits

evidence of L1 transfer for the Spanish learners and, at the same time, evidence that L1 transfer is likely to have a greater effect in L2 acquisition than input exposure and frequency. Moreover, Ionin et al. (2008b) state that when comparing learners with higher L2 English proficiency to those with lower, more proficient learners are likely to have obtained more L2 input and/or dealt with the input better than the less proficient ones.

As previously mentioned, Thai learners in this study were those with limited input exposure (i.e., their exposure to English was limited primarily to their English classroom: classroom materials and instructions). They were, thus, those who were supposed to have a limited opportunity to receive sufficient input triggers concerning English article choice to lead them to select the ACP setting appropriate for English (i.e., definiteness). These triggers are discourse-based rather than just coming from knowledge of syntax (Ionin, 2003; Ionin et al., 2004). It may, consequently, be said that it is a big challenge for the Thai L2 learners to set to the appropriate ACP setting for English, especially when the availability of the crucial data for such a parameter setting in the input they receive (i.e., a chance to receive the positive evidence with a variety of English DPs conveying article semantics: definiteness and specificity across different contexts in a discourse) appears to be at a low level. In this respect, it seems to be a particularly hard task for them for setting to the definiteness value of the ACP, which is appropriate for English article system. However, exploring the performance on English article choice of the L2 learners in the absence of direct L1 transfer and with low levels of input exposure and frequency in this study could be a way of examining the role of input in L2 acquisition as well as looking at to what extent the FH and predictions for L2 English article choice, advocated by Ionin (2003) and Ionin et al. (2004), could explain these limited L2 input exposure learners' article choice.

If it is, for instance, found that the L2 learners, even those at the advanced English proficiency level, show significantly low accuracy in their English article use, it may be interpreted that in the absence of L1 transfer, input exposure and frequency have an impact upon the acquisition of L2 English articles. This will be able to confirm the role of input in L2 acquisition. More importantly, if it is found that these limited input exposure learners' accuracy in English article use in different semantic contexts, including the non-conflicting ones, is at a low rate, it will reflect the role of input in L2 article acquisition. That is, such a low accuracy rate is likely to result from their limited input exposure level, rather than the contexts with or without a conflict between the semantic features (definiteness and specificity) of the NPs. If this is the case, it means that the accuracy or error patterns in their English article choice do not seem to be linked to the definiteness or specificity of the NPs; that is, learner article choice is not affected by these semantic features and, thus, not systematic. This will, then, exhibit evidence against the predictions for L2 English article choice by Ionin (2003) and Ionin et al. (2004). Besides, if it is found that overall, the L2 learners

with limited input exposure, particularly even those with lesser English proficiency, show a relatively high performance in their use of English articles, this possibly means that there seems to be some other factors, apart from input, that play a role in their L2 English article choice. They may, for example, rely on a certain strategy of using an English article in their article use, and such an article strategy may result in their high article accuracy or errors in a certain way.

An article preference is probably one of the learners' specific strategies of using an English article which leads them to greater use or overuse of one article than another and which, then, affects their choice of articles. To be more precise, L2 learners may prefer the article *the* to *a* in their article choice mainly because of the greater complexities of the usage of English article *a* than *the* (Lardiere, 2004). Such a preference may lead to a higher use rate of *the* than *a* and, hence, more correct use and, at the same time, misuse of *the* than *a*. If this is the case, it may be interpreted that they have an article preference, and their article choice seems to be affected by such a preference. Due to a relative lack of research into this linguistic phenomenon in L2 acquisition of English articles, it is worth undertaking a study to investigate it.

In summary, it would be worth looking at the low input exposure learners' L2 acquisition of English NPs and, in particular, article system, which seems to be still needed. In doing this, we can examine the NMP and whether Thai learners with limited L2 English input exposure levels could reset the NMP to the setting for English. This will be a way that allows the researcher to explore if there is a critical amount of input required to reset the parameter. Through this study, we can, moreover, examine the ACP and to what extent the FH and predictions for article choice in L2 English, advocated by Ionin (2003) and Ionin et al. (2004) could explain article use by the Thai learners with limited L2 input exposure. Their article patterns (accuracy or errors) may be found inconsistent with those found in previous studies or may not be what they are expected to show. For instance, even with low input exposure, the L2 learners may not exhibit fluctuation or, at least, may show a somewhat high performance in their English article use even not native speaker level. If this is the case, apart from input exposure and semantic universals, their English article choice may be also impacted by some other factors. This study's focus is also on the investigation of the learners' article preference, which possibly plays a role in the L2 learners' English article choice. To our knowledge, research focusing on an article preference in article acquisition of syntax-semantics/pragmatics interface by the L2 learners with limited input exposure is relatively rare. The investigation of L2 acquisition of English NPs and articles by the Thai learners with limited levels of L2 input exposure and of whether the L2 learners demonstrate an article preference in their article acquisition in this study would, then, contribute knowledge to a field of L2 acquisition research.

Chapter 3: Research Methodology

This chapter describes the research methodology that were applied into this research study. It provides information on the participants, the research instruments which were used for data collection, and the research procedures which were followed to conduct this study. The research methods used to analyse the data and scoring procedures are also discussed.

As for the research questions and predictions in this study, they were summarised in the following.

Research question 1: Can Thai learners of English reset the Nominal Mapping Parameter from the Thai setting [+arg, -pred] to the English setting [+arg, +pred]?

Research question 2: Will Thai learners' errors in the use of English articles have predictable patterns?

Research question 3: Do Thai learners of English fluctuate between the definiteness setting and the specificity setting of the Article Choice Parameter in their L2 English article use?

Research question 4: (A) Is there a difference between accuracy in Thai learners' English L2 article choice in definite ('the') and indefinite ('a') contexts, and (B) do Thai learners have an article preference in their choice of L2 English articles?

3.1 Participants

The participants of the present study were 118 Thai adult L2 learners of English with different English language proficiency levels (42 intermediate, 43 upper-intermediate and 33 advanced) as the experimental group, recruited from Thai undergraduates at Naresuan University, Thailand, by using their English test scores in the National English examinations , namely O-NET and GAT.

The O-NET or the Ordinary National Education Test is 'a high-stake and mandatory examination' (Thailand Ordinary National Educational Test, 2015, p. 2) consisting of many core subjects (five to eight subjects, depending on the national education curriculum in the academic year), one of which is Foreign Language: English (100 points for English language subject), as required in the national education curriculum. It is annually administered to Thai students enrolled in grade 6, grade 9, and grade 12 in every school in Thailand and conducted by the National Institute of Education Testing Service (NIETS). Promoting the grade 6 and grade 9 students to their next grade is based on their O-NET score together with their school-based assessment score obtained during

the academic year. For the grade 12 students, their O-NET and school-based assessment scores in the academic year are part of the Thai university admission examination scores.

The GAT or General Aptitude Test is one of the examinations for Thai university admissions developed by the National Institute of Education Testing Service (NIETS) for Thai students who are entering a Thai university throughout the country, especially for Thai grade 12 students. This test comprises two main sections (150 points each), one for assessing the Thai students' reading, writing, critical thinking skills, and their problem solving skills and the other for assessing their ability to communication in English (NIETS, 2009).

In summary, the two examinations directly related to English language (English tests in O-NET and in GAT) described above are the national English language proficiency tests and part of the Thai university's entrance examinations which Thai learners who are entering a university in Thailand are primarily required to take. They can be considered a standard English proficiency test as they are developed by the Thai National Committee members, namely the National Institute of Education Testing Service (NIETS), for determining the Thai examinees' English proficiency levels in particular. The Thai learners, accordingly, in this research were assigned to beginner, intermediate, upper-intermediate, or advanced group based on their English test scores in the examinations.

In addition to the Thai participants, 10 native speakers of English, recruited from native English-speaking students at Southampton University, United Kingdom, were the control group. In this study, the sample was selected by using the convenience sampling method; that is, the participants in the research were those who were conveniently available to voluntarily take part in the present research study. Due to the fact that this study was aimed at investigating the L2 acquisition of English by any Thai learners in a Thai university, not in specific fields of study, and more importantly, the research participants were asked to perform a number of test/task materials, the sampling method appears suitable for this study, and that the sample is willing to participate in the study, more specifically, to conduct all the test/task materials seems essential.

3.2 Research instruments

In the current research study, there were four main research instruments which were used as the data collection tools, namely a background information questionnaire, the count-mass grammaticality judgment (GJ) task, the forced choice elicitation (FCE) task, and the production task (PT). The participants' taking part in these data collection methods lasted for approximately two hours or three hours altogether.

3.2.1 The background information questionnaire

This questionnaire was designed and used by the researcher in order to obtain the Thai learners' background information, including their L2 language learning and years of learning the given language and their exposure to the English language. More importantly, using this research instrument was mainly aimed to collect data on their English test scores in the National English examinations: O-NET and GAT, as mentioned earlier, in order to divide the Thai learners into different English proficiency level groups: beginner, intermediate, upper-intermediate, and advanced.

To ensure that the questionnaire was clear to the Thai learners, the research created it in their first language: Thai. It was piloted to Thai learners of English who were not part of the study. The main purposes were to explore the appropriate time for administering this questionnaire and to examine whether there were any ambiguous questionnaire items. These, then, were revised in order to make them clear to the Thai learners. As a result of piloting the questionnaire, the participants were asked to complete it in different time from the test/task materials, more specifically, after performing all the test/task materials. Doing so could help the researcher to prevent the participants from getting tired or anxious about completing several research methods in a single session and from being distracted from the test/task materials, the essential research methodology. Besides, in a previous session where the participants did the tasks, they were told to be aware of being administered a questionnaire in which included an item asking them about their English test scores in the National English examinations: O-NET and GAT in the next meeting session. In case they could not remember their own test scores, they were aware of preparing the scores for the questionnaire. This could enable the researcher to make certain that she could get accurate and adequate data on the participants' English proficiency levels.

The following is the test/task materials used as the crucial research methodology in this research study. Explanations of each of the tasks: the defining characteristics of each research methodology, rationales for using them, and the design and the pilot-testing of each of the methodology, respectively are provided below.

3.2.2 The count-mass GJ task

One of the research questions of the present study is "Can Thai learners of English reset the Nominal Mapping Parameter (NMP) from the Thai setting [+arg, -pred] to the English setting [+arg, +pred]?". In other words, one main objective of this research study is to examine whether Thai learners of English can reset the NMP from the setting of Thai, whose common nouns are argumental [+arg, -pred], mass/kind-denoting expressions to the setting of English [+arg, +pred].

Whether second language (L2) learners' resetting the NMP from their setting to the English setting exists could be determined through the investigation into L2 learners' ability to discriminate between 'what is countable and uncountable in English.', according to Snape, (2006, p. 15). Consequently, the count-mass grammaticality judgement task is employed to gather information on Thai learners' ability to distinguish between English count and mass nouns to address this research question.

3.2.2.1 The defining characteristics of a GJ task

In GJ tasks, 'a common elicitation tool in linguistics' that is generally employed to encourage learners to indicate 'what is possible and what is not possible' in the L2 (Mackey and Gass, 2005, p. 49), there are typically a variety of test items or sentences which are grammatical and ungrammatical. Principally, learners or task takers are asked to distinguish between 'allowable' and 'disallowable' (Rule, 2001, p. 114) items. In other words, they are required to decide whether the task items are either grammatical or acceptable or ungrammatical or different from what is considered normal and acceptable by most people in the L2 (Ellis, 1991; Mackey and Gass, 2005).

In addition to ungrammatical items or sentences, in the GJ task, learners may also be involved in identifying where the error appears, turning what is ungrammatical into a grammatical one, or indicating why it is ungrammatical.

It may be said that when conducting GJ tasks, learners tend to be involved in three processes suggested by Ellis (2004), which consist of semantic processing, noticing, and reflecting. That is, learners generally carry out semantic processing and noticing when they are required to judge the grammaticality of task items in that in so doing, they principally have to understand the meaning of the sentences (semantic processing) as well as determine whether any errors exist in these items (noticing). As for reflecting, it may be carried out in case learners are asked to indicate what is ungrammatical and probably provide an explanation of why it is ungrammatical.

According to Sorace (1996, cited in Rule, 2001, p. 114), GJ tasks are the methodology which posits that learners' correct answers to this task are interpreted that they have 'access the linguistic knowledge' allowing the structure of the target items, whereas their incorrect answers reveal the lack of such access.

3.2.2.2 Rationales for using this research methodology

Regarding why the GJ task is appropriate research methodology, this research methodology appears to be able to help the researchers to make certain that the task could be employed to appropriately and sufficiently ascertain L2 learners' linguistic ability or knowledge of particular

grammatical structures or linguistic properties, including count and mass nouns, which may be hardly produced by L2 learners or even which do possibly not take place in their production tasks. As proposed by Ellis (1991), 'some phenomena are not accessible to investigation in production data because they occur either rarely or not at all' (p. 163). To illustrate, to measure L2 learners' certain linguistic ability through their production of the L2 is occasionally complicated due to the fact that they may produce particular grammatical structures in their L2 production at a low level or may not produce them at all. In this case, as discussed above, GJ tasks are likely to be an appropriate instrument to help the researchers to be able to obtain enough instances or sufficiently collect data on L2 learners' ability in such structures, as Gutierrez (2013) points out. This is partly because GJ tasks are typically aimed at measuring learners' knowledge of specific grammatical structures, and as Mackey and Gass (2005) state, the absence of a particular structure in learners' language production could not be interpreted that they do not have linguistic ability in such structure. Moreover, there seems to be consensus that GJ tasks could be applied to measure learners' linguistic ability or performance in the L2, from which could also deduce their linguistic competence (Loewen, 2009). Furthermore, this kind of task appears to be a considerably time-saving instrument for researchers since GJ tasks could easily be provided to several learners or participants at the same time.

There have been some criticism of the grammaticality judgment (GJ) tests in second language acquisition research, however. The issues connected with the use of this type of data collection method to measure the L2 learners' linguistic knowledge of L2 grammar were discussed by many researchers (e.g., Birdsong, 1989; Ellis, 1991; Gass, 1994; Johnson et al., 1996; Mandell, 1999; and Tabatabaei and Dehghani, 2012). With respect to the validity and reliability of the GJ task, As some researchers, for instance, Birdsong (1989), Ellis (1991), Johnson et al. (1996) and Tabatabaei and Dehghani (2012) claim, it is possible that the L2 learners' performing grammaticality judgment is inconsistent, and the data collected from the GJ tasks are, thus, unreliable. Ellis's analysis of data on the Chinese L2 learners demonstrated that the learners tended to inconsistently make grammaticality judgment about the English dative alternation due to their inconsistent judgment of the same test items in the task. The study of L2 acquisition of English tense, question, person, and word order by Johnson et al. and that of English verb complements by Tabatabaei and Dehghani (2012) showed similar findings. Both studies found variability or instability in the L2 learners' performance on the GJ task. On this basis, the GJ task is possibly not a reliable measure of L2 learners' linguistic knowledge of certain grammatical structures.

On the other hand, in the studies by Gass (1994), examining the Chinese, Korean, and Japanese L2 learners' judgment of English relative clauses and Mandell (1999), examining L2 learners of Spanish verb movement, the results related to the reliability of the GJ tasks revealed that the GJ

tasks were a reliable measure of L2 learners' syntactic or linguistic knowledge. This is because they found the consistency of the participants' grammaticality judgment in their research work, suggesting that the L2 learners' performance on the GJ tasks were stable and reliable. Based on these findings, it may be said that this task type seems to be a reliable data collection method measuring the L2 learners' linguistic knowledge.

As can be seen, the GJ task seems to be a research methodology in language acquisition research studies which has been controversial. Therefore, it may be stated that more research in L2 acquisition using this test type as a data collection technique is worth conducting as a way of reflecting the strengths or weaknesses of such a task. The researchers using the GJ task in collecting data 'should use this kind of test with more caution' (Tabatabaei and Dehghani, 2012, p.173).

Despite the criticism concerning the application of the grammaticality judgment task in language acquisition research, this type of research methodology is likely to be an appropriate measure of Thai learners' linguistic knowledge of the grammatical structures like English count and mass nouns. To clarify, in terms of Thai learners, it is possible that some learners may avoid producing grammatical structures or items relevant to noun countability and/or produce only a limited number of them. That is, it could be the case that the Thai learners, especially those with low proficiency levels and/or with limited L2 input exposure, might repeat and use the same count and/or mass nouns in their English production. To illustrate, when writing English without control over their production, some learners' number of count or mass nouns is possibly limited, or some of them might produce only certain count or mass nouns that they are familiar with such as "dog, cat, student, teacher, water, rice", leading to limited research data collected. It may be mainly because no count/mass distinctions exist in the Thai language; that is, Thai common nouns are mass/kind-denoting expressions. The lack of count/mass distinctions in Thai NPs may cause some Thai learners to infrequently produce the related grammatical items, to use only, for example, nouns that they are familiar with, especially when they are uncertain in relation to the countability of the nouns, and, thus, to lead to limited research data on count and/or mass nouns collected or found in their L2 production of English. In this case, it seems difficult to measure their ability in relation to count and mass nouns in English suitably and sufficiently through their English production.

Therefore, considering the possibility as such as well as primary features of GJ tasks, as discussed above, this type of task is likely to be an appropriate research methodology applied as a measure of Thai learners' ability to judge English noun countability, that is, to discriminate between English countable and uncountable nouns.

3.2.2.3 The design and the pilot-testing of the count-mass GJ task

In relation to GJ tasks applied in previous research studies, when analysing such tasks, in some studies (e.g., Ellis, 1991), it was found that L2 learners' judgment of grammatical task items was more accurate than that of ungrammatical ones. On the other hand, the findings in other studies (e.g., Bley-Vroman et al., 1988) suggest that judging ungrammatical task items of L2 learners is more accurate than when they carry out the judgment of grammatical ones.

Considering the findings of previous research mentioned above, it may be stated that there should be equal types of task items (grammatical and ungrammatical) in an attempt to avoid some impacts of the two types of task items on L2 learners' grammaticality judgment. The GJ task used in this study, hence, is composed of equal grammatical and ungrammatical task items.

In addition, in the study conducted by Loewen (2009), it reveals that there seem to be some effects of time pressure on both native and L2 learners' performance on GJ tasks. That is, their accuracy in judging the grammatical task items is not different from that in judging the ungrammatical ones in the GJ task with no time constraints on their responses, whereas in the GJ task with time constraints, their accuracy in judging the grammatical task items and the ungrammatical ones are different.

Loewen (2009) noted that for grammaticality judgment tasks with no time limits, they tend to allow learners to have sufficient time carrying out the three processes (semantic processing, noticing and reflecting) as mentioned earlier, which the learners may take part in when completing the GJ tasks. This possibly leads to no differences in accuracy in learners' making judgments of grammatical and ungrammatical task items in the GJ tasks without time limits for their responses to the tasks.

As for the GJ tasks with time limits, it is possible that learners may not have time for carrying out the reflecting process; that is, only semantic processing and noticing take place in their grammaticality judgment. This may cause the differences in learners' judging grammatical and ungrammatical test items.

Thus, for preventing the certain effects of time pressure which may play an important role in L2 learners' performance on the GJ task, the GJ task employed in the present study do not have any time limits for learners to respond to the task items.

The count-mass GJ task used in this study was adapted from the GJ task used in the study by Snape (2006) since the items in his task were involved specially in English NPs which were also the main focus in the current research. Besides, most of the NPs in the task seem suitable for Thai

learners with any English proficiency levels because they look not very complicated. This could help to prevent any issues probably caused by the complexity of tested items.

In the task, there were two main types of NP: count nouns and mass nouns, including singular and plural such as bicycle and tickets for count nouns as well as cash and *waters for mass nouns. The tested count and mass nouns would co-occur with quantifiers (e.g., much, few, many, and some) in the construction "Quantifier + Noun" to help establish count/mass contexts or environments of the NPs as well as grammaticality/ungrammaticality of the task items, for example, *much bicycle, few tickets, *many cash, and *some waters. In so doing, the researcher could investigate the learners' L2 acquisition of English NPs, or more specifically, their ability involving English count and mass noun differentiation. Some examples of the task items are as follows:

(36) a. *She did not see much bicycle.

b. Jimmy took few tickets.

c. *Bob expected many cash.

d. *John needed some waters.

(See the complete GJ task in the appendix A)

The order of the task items was random; moreover, two versions of the GJ task with the same task items but different item distribution were designed to be a way of controlling for any ordering effects. The two versions were pilot-tested with Thai learners of English and English native speakers, who were not part of the study. After that, the researcher made some revisions to the GJ task following the pilot-testing results.

In pilot-testing the count-mass GJ task with the Thai learners who were not part of the study, the researcher conducted an interview to ask them about the task, including randomly asking them whether they were aware of where the errors were in certain ungrammatical test items and whether they realised what they were testing. It found that some of them got scores of correct judgements, especially in the ungrammatical items, even though they did occasionally not realise where the ungrammatical part existed in the items. This resulted in the researcher adding the instruction of the task requesting the participants to underline the errors in the items where they determined ungrammatical in English. This could help to ensure that the participants did not make correct judgements by chance. Additionally, in order to prevent the participants from focusing on any specific grammatical rules while taking the task, some distracters were added to the task. That is, the total items on the GJ task were thirty-four, of which were twenty-four targeted test items, testing the learners' knowledge of count and mass noun and ten distracters.

3.2.3 The forced choice elicitation (FCE) task

In addition to the first research questions, the following questions are also addressed in the research study: “Will Thai learners’ errors in the use of English articles have predictable patterns?”, “Do Thai learners of English fluctuate between the definiteness setting and the specificity setting of the Article Choice Parameter (ACP) in their article use?”, “Is there a difference between accuracy in the Thai learners’ article use in definite (‘the’) and indefinite (‘a’) contexts?”, and “Do Thai learners have an article preference in their choice of L2 English articles?”. In other words, this study is aimed at finding out how they use English articles. That is, for their article misuse or errors, the current research attempts to study whether L1 Thai learners of L2 English will produce errors in their article use which have non-random or predictable patterns, proposed by Ionin (2003) and Ionin et al. (2004). Moreover, their use of articles, whether they fluctuate between the two settings (the definiteness setting and the specificity setting) of the ACP, suggested by Ionin and Ionin et al., is investigated. Furthermore, whether there is a difference between accuracy in the Thai learners’ definite (‘the’) and indefinite (‘a’) article use and whether they show an article preference in their English article use are also investigated in this study.

Based on the ACP and the Fluctuation Hypothesis (FH), including the predictions in relation to L2 learners’ English article choice or their English article use patterns, proposed by Ionin (2003) and Ionin et al. (2004), in the current work, it is hypothesized that article use or misuse of the Thai L2 learners of English, whose mother tongue lacks the article system, will reflect the relationship between the semantic features “definiteness” and “specificity”. That is, for Thai learners of English’s error patterns, it is expected that more article errors will exist in the conflicting semantic contexts of articles: [-definite, +specific] or [+definite, -specific] than in the non-conflicting semantic ones: [+definite, +specific] or [-definite, -specific]. Furthermore, this study hypothesises that since Thai is a language which articles do not exist, Thai learners are likely to fluctuate between definiteness and specificity settings in the use of L2 English articles. It is expected that they will overuse the indefinite article ‘a’ in the [+definite, -specific] contexts and overuse the definite article ‘the’ in the [-definite, +specific] contexts, which may be as a result of Thai learners of English treating indefinites as the feature [-specific] and definites as the feature [+specific]. It is, moreover, expected that the Thai learners will use ‘the’ in [+definite] contexts more correctly than ‘a’ in [-definite] contexts and show an article preference (i.e., prefer ‘the’ to ‘a’) due to the fact that the indefinite article ‘a’ seems to be more complicated to use than the definite article ‘the’, as asserted by Lardiere (2004). Lardiere states that using definite articles in English, one does not need to take account of number and the count-mass distinction of NPs; thus, comparing with indefinite articles in English, definite ones are likely to be more ‘featurally’ (p.335) simple.

In order to answer these research questions, tasks used for eliciting articles from the Thai L2 learners are necessary. One of the tasks, which was employed in this study, is the FCE task. This research methodology was designed and applied to obtain written elicitation data on L2 English article choice.

3.2.3.1 The defining characteristics of an FCE task

FCE tasks have typically been used as research methodology in a Universal Grammar (UG) framework in the examination of L2 article acquisition or article choice in particular. There seem to be a number of research studies (e.g., Atay, 2010; Ionin et al., 2004; Jian, 2013; Lee, 2012; Miyamoto and Yamada, 2011; Snape, 2006; White, 2009) which have used this mythology to elicit articles from L2 learners or to detect their article use. Among these studies, it may be stated that Ionin et al.'s (2004) work is one of the most essential studies of L2 learners' article acquisition partly in that dialogues or contexts in their elicitation task have been adapted or adopted in a wide variety of studies (e.g., Jian, 2013 Miyamoto and Yamada, 2011; White, 2009).

In their research, Ionin et al. (2004) studied the acquisition of the L2 English article system by Russian and Korean learners, whose L1s have no articles. The total target short dialogues in English in their forced choice elicitation task were forty. Their main goal of the task was to test 'their predictions for article choice in L2 English' (p. 19) in four main different context types, which were [+definite, +specific], [+definite, -specific], [-definite, +specific], and [-definite, -specific] with or without scope interaction, including previous-mention and first-mention. The L2 learners were asked to make a choice between the provided options: *a*, *the* and – (a null article) for each target DP with one removed article in each dialogue, all of which were singular and most of which were in the object position, in one hour and a half. They received a translation sheet, comprising items which they were unlikely to familiar with and which were translated into their native tongue (Russian or Korean), simultaneously with the FCE task.

Snape (2006) and Miyamoto and Yamada (2011) are ones among the researchers whose situations or contexts in the FCE task were adapted from or based on the issues or dialogues in the FCE task used to study article choice by Ionin and Wexler (2003) and Ionin et al (2004), respectively.

For the study of Snape (2006), his major objective was to investigate the L2 acquisition of determiner phrases in English by Japanese and Spanish L2 learners. The FCE task, consisting of 92 short English-language dialogues: some of which were adapted from the dialogues in the FCE task by Ionin and Wexler (2003), was employed to test both of the L2 groups' ability to differentiate between various types of definites and between different indefinite types, as well as to test the

Fluctuation Hypothesis (FH), which Ionin et al (2004) propose. A vital discussion of Ionin et al's FH in L2 English Article Choice is that in terms of the lack of article system in their first language, L2 learners of English will possibly (1) 'have full Universal Grammar (UG) access to the two settings of the Article Choice Parameter' and (2) 'fluctuate between the two settings of the Article Choice Parameter until the input leads them to set this parameter to the appropriate value' (pp. 16-17). To test the FH, Snape explored his participants' article choice in definite and indefinite singular and plural contexts, namely, [+definite, +specific], [+definite, -specific], [-definite, +specific] and [-definite, -specific] singular and plural contexts. They were asked to choose 'the', 'a', 'an' or ø (a null article) for each of the omitted articles which are the target DPs in the task, represented by a blank space. The task was untimed. The instances of context types in his FCE task are illustrated as follows:

(37) "target 'the'"

a. [+definite, +specific] singular

A: Could I have some water, please?

B: Sure, I'll bring you another glass.

A: Just use ____ glass I had wine in.

b. [+definite, +specific] plural

A: Hi, Jimmy! How was school?

B: We had two chemistry tests.

A: Did you find ____ tests difficult?

c. [+definite, -specific] singular

A: Are you interested in our internship programme?

B: Yes, I would like to work in your Colchester bank.

A: OK, then, I will contact ____ branch manager for you.

d. [+definite, -specific] plural

A: I like studying in my university library.

B: Is their collection good?

A: Yes, I found ____ psychology books very useful.

(38) "target 'a(n)' in singular contexts or target ø in plural contexts"

a. [-definite, +specific] singular

A: Kylie went to Tim's party.

B: Did she have fun?

A: She met ____ man who I knew at school.

b. [-definite, +specific] plural

A: I'm not going to Tom's party.

B: Why not?

A: He always invites ____ people who I don't like.

c. [-definite, -specific] singular

A: Rose is happy.

B: Why?

A: She got ____ car for her birthday. I wonder what it looks like?

d. [-definite, -specific] plural

A: Julian has been buying things again.

B: What did he get this time?

A: Apparently he bought ____ skis for his skiing holiday, but I haven't seen them yet.

(Taken from Snape, 2006, pp. 241-243)

In Miyamoto and Yamada's (2011) investigation of English article choice by Japanese child and adult L2 learners, the FCE task was the revised one applied by Ionin et al. (2004). Consequently,

the semantic context types adopted in their study of L2 article choice were consistent with those of Ionin et al., including [+definite, +specific], [+definite, -specific], [-definite, +specific] and [-definite, -specific] singular context types. The Japanese subjects were required to choose an appropriate article: 'the', 'a(n)' or – (a zero article) from the options provided in each task item for inserting in each target DP whose article was missing.

Their task is, however, different from the FCE tasks employed in Ionin et al's (2004) and Snape's (2006) research studies mentioned above in terms of its format. This is because their task items were not in the format of English dialogues but in the format of context or situational explanations in the participants' native language (Japanese) together with each target sentence in English. They state that this could help their child participants to fully understand the task item contexts. An example of their FCE task items, the context explanation of which is translated from Japanese into English and the target sentence of which appears in " ", is as follows:

(39) [+definite, +specific] wide scope: target 'the'

Mary and Chris bought some books at a book store. He asked her to go out together soon. Then she asked him to wait for a minute, and said, "This is my friend's book store. I want to talk to (an, the, –) owner of this bookstore."

(Taken from Miyamoto and Yamada, 2011, p. 11)

3.2.3.2 Rationales for using this research methodology

With respect to why the FCE task is appropriate research methodology in the current study, there are some advantages of this task type, which make it suitable for using to examine L2 English article choice. One of them is that this kind of task appears to enable researchers to ensure that all article semantic contexts required to be tested in their work are covered or exist in subjects' article use and, thus, could be tested. As Ionin et al. (2004) and Lee (2012) point out, the FCE task enables the researchers to control for semantic contexts in which each target NP or DP is present. Ionin et al. state that 'we could control whether a given context was definite or indefinite, specific or nonspecific, and could subsequently examine L2 learners' performance' (p. 21) in the entire context types required to be tested.

In terms of Thai learners, considering the statement of Ellis (1991) that 'some phenomena are not accessible to investigation in production data because they occur either rarely or not at all' (p. 163), the case of eliciting insufficient articles in the L2 English from Thai learners, especially in some semantic contexts, may take place if the L2 learners avoid using or rarely produce English articles in their English production. The lack of article system in the Thai language may result in

this case as well as in article omission. As pointed out by Abdulsata (2000) and Swan and Smith (2001), Thai learners frequently omit articles in their production of English. In other words, due to the absence of articles in Thai, some Thai learners may not know where to use the articles and which article should be used, and, then, they ignore the article use or omit the use of articles in their English production. If this is the case, it could cause the researcher to collect insufficient data on article choice by Thai learners. The FCE task is research methodology which is likely to be able to help the researcher to prevent such case. According to White (2009), considering learners probably avoiding 'problematic structures and uses in free production' (p.20), a FCE task seems to be the best methodology to lead participants to the issue of the semantic factors "definiteness" and "specificity". This, then, allows researchers to elicit sufficient articles in the required semantic contexts even though such methodology appears to lead to the researchers obtaining data on their participants' article use considerably lacking in naturalistic responses.

Considering several advantages of the FCE task, as discussed above, it may be said that this research methodology is significantly appropriate for being employed in this study. Consequently, the researcher utilises it to gather data on the participants' English article choice, especially on the Thai L2 learners'.

3.2.3.3 The designs and the pilot-testing of the FCE task

The FCE task in this study adapt and/or adopt the situational dialogues and contexts from the FCE task applied by Ionin et al. (2004), Miyamoto and Yamada (2011) and Snape (2006) and was employed to elicit articles from the participants.

The total test items in the FCE task were forty. This task was comprised of the equal number of task items in definite and in indefinite contexts and has no time limits on the participants' responses to the task items. In each target sentence of each task item, in which an article in each target DP is missing, the participants were provided with three options: 'the', 'a(n)' or – (a null or zero article), among which they were required to choose one. The target DPs were singular. The task was in the format of context or situational explanations in the participants' native language (Thai for the experimental group and English for the control group) together with each target sentence in English mainly so as to make the task Thai-subject friendly and to enable the Thai participants to completely understand the contexts of the task items, as discussed in Miyamoto and Yamada's (2011) paper.

The order of the task items was random, and two versions of the forced choice elicitation task, which included the same task items but the different item distribution, were created in order to control for any ordering effects. The task was pilot-tested with Thai learners and native speakers

of English who were not part of the study so that any items that seem problematic would be revised. More essentially, it was piloted to the Thai learners to find out whether there were any ambiguous explanations of semantic or situational contexts in Thai, which would be revised accordingly. That is, the semantic contexts that were included in the FCE task were primarily selected on the basis of the FCE pilot-testing results. Those that were not clear for the Thai learners in the pilot-testing were excluded or revised; the unambiguous were used as semantic contexts in the task items.

After pilot-testing the FCE task, some examples of how to do the task were added to the task in order to ensure that the participants suitably performed it. To allow the Thai learners to fully understand the meaning of the English sentences in each task item, they were given a supplementary sheet with the meaning of vocabulary existing in some of the task items, with which they might not be familiar.

3.2.4 The production task (PT)

In order to provide more evidence of how the Thai learners use English articles or to complement the FCE task to answer the research questions related to Thai language learners' English article use ("Will Thai learners' errors in the use of English articles have predictable pattern?", "Do Thai learners of English fluctuate between the definiteness setting and the specificity setting of the Article Choice Parameter in their article use?", "Is there a difference between accuracy in the Thai learners' article use in definite ('the') and indefinite ('a') contexts?", and "Do Thai learners have an article preference in their choice of L2 English articles?"), it is beneficial to use another data elicitation instrument, namely the production task (PT), in the study for eliciting more data on their choice of English articles. A description associated with the PT is provided in the following.

3.2.4.1 The defining characteristics of a PT

With respect to the PT, which is one of the research methodologies, or, more specifically, a supplement to the article choice elicitation methodology (the FCE task) in this study, as mentioned above, it is a tool or a data collection method which is possibly able to be employed by the researchers to elicit written or spoken language production or prompted production data from language learners (Chaudron, 2003; Gass and Mackey, 2007a). To clarify, in this kind of task, learners or task takers are primarily required to produce discourse or the use of language in writing or speech when conducting the task activity. In so doing, the learners could have an opportunity to indicate their own typical language use such as their use of English articles in a given English sentence which they write or speak as the task response in each of the task items. That is, data on the nature of one's grammatical systems, notably a window into the learners'

more naturalistic responses involved in L2 English article system, are likely to be supplied and reflected to the researchers by using this type of task.

According to Gass and Mackey (2007a), it seems likely that the PT or 'prompted production' (p. 75) is a data elicitation technique which is useful for the study whose research focus is on a specific linguistic area, for instance, the L2 learners' article use in different semantic contexts, which is the main focus in the present research study.

3.2.4.2 Rationales for using this research methodology

It could be the case that researchers whose studies use a production data collection method encounter a number of difficulties particularly in their data analysis. In the study by Ionin et al. (2004), for instance, to analyse production data collected from their participants who were the L2 English learners (Russian and Korean learners), they required several native English speakers to code their production data. In the coding procedure, what the native English speakers (coders) were asked to do was reading the participants' narratives (the production data) and inserting an article suitable for each of the NPs existing in the narratives. In so doing, 'once the coders became tired, they would start disregarding the context and putting in articles more or less randomly' (p. 44), as Ionin et al. noted. If this is the case, it could be problematic and may affect their data and findings. For example, it might cause the researcher not to be able to gain the actual data on the learner article use.

However, in relation to why the PT is a suitable methodology for being applied in this study, it may suggest that as discussed above, this task type allows the researcher to obtain somewhat naturalistic data on article use from the Thai learners. That is, this kind of technique could be employed to facilitate the language learners' relatively spontaneous English article production or could at least be applied to gather information about their use of English articles which seems more spontaneous than those collected through the FCE task to a certain extent. Although the researchers have some control over the production data obtained through the PT, this data elicitation technique is primarily generated to gain linguistic data which the researchers do not completely control or do not fully guide the task takers to produce. For this reason, the PT appears to be a way of promoting the L2 learners' production of relatively natural response data.

It is possible that the combination of data collection methods: the FCE task and the PT, that is, supplementing the former with the latter for eliciting data on the Thai learners' article use in different context types in this study may result in deeper understanding of the phenomenon. Additionally, findings in the research can probably be corroborated by the combination of the two techniques. This is because combining the different methods is likely to help, in a certain degree,

to produce data triangulation. It may be said that triangulation, especially 'methods triangulation' (Patton, 1999, p. 1193), is predominantly a vital aspect that should be considered when one undertakes research in that not a single data collection technique can help to sufficiently explain the phenomenon under study (Cohen and Crabtree, 2008). Patton (1999), moreover, states that multiple techniques of data collection can lead to 'deeper insight into the phenomenon under study' (p. 1193), in other words, can 'provide more grist for the research mill' (p. 1192) as well as conceivably provide consistency checks on research findings. It, thus, seems that various methods of data collection or methods triangulation, and, then, different data types may bring about an additional explanation of the phenomenon aimed at examining in the research, as Denzin (1978) and Patton (1999) propose. This could presumably serve to fill out aspects of the phenomenon.

Consequently, it tends to be useful and suitable to combine one certain method of data collection with another such as the FCE method with the production method. As noted by Gass and Mackey (2007a), properly using and combining data elicitation methods play a crucial role in triangulating data and accomplishing the research.

In addition to the production method, Gass and Mackey (2007a) point out that prompted production data are those that are structured in a specific direction or controlled to some extent. With this in mind, hence, as mentioned earlier, prompted production is a data elicitation means which tends to be appropriate to the study that focuses on a particular linguistic area, notably language learners' use of English articles. It might be suggested that the vital advantage of the prompted production is that it can help the researchers to ensure that what their participants will generate when carrying out the PT is connected with the target linguistic area. In other words, this task type could encourage the learners to create instances of the linguistic area that is aimed at investigating in the research study. For the PT's weaknesses, when using this kind of task, the researcher might face some problems, for instance, with how to design the PT task to obtain their participants' PT data on the target linguistic structures. There seem to be certain issues that researchers should take into account. For example, in using the PT task, its data collecting procedures are generally complicated. Some studies might need to use a variety of research instruments, namely supplementary instruments, in a single PT data collection session such as the study by Ortega (1999), of which the PT task (the story-retelling task) included several research instruments designed: relevant pictures, the story, and the story-retelling task. The researchers, moreover, should ensure that their PT task uses clear concise task instructions in order to post no problems (e.g., confusing instructions) for the task takers.

However, as can be seen from the descriptions and the characteristics of the production method or the production data, especially its significant advantage, despite taking account of particular

issues, the PT is still likely to be the suitable research methodology, which makes an essential combination with the FCE task. Such a combination of this task type and the FCE task appears to enable the researcher to obtain adequate information on the Thai language learners' choice of English articles, the main research focus, and, therefore, to address the research questions related to such research focus. As a result, the current study chooses the PT as a major data collection technique and a complement to the FCE task.

3.2.4.3 The design and the pilot-testing of the PT

The PT used in the present research was designed to elicit the Thai learners' written language production; or, to be precise, it is the written story-retelling task, in which the participants were requested to carry out the story retelling in written form in English language. The reasons why it was created to be the written task are to make it a simpler or easier task for Thais in that many Thai learners seem to feel more comfortable with an L2 written task or activity than with the oral one and hopefully to reduce processing and anxiety load as well. This is because generally, their learning of English at any education levels is mainly based on English language reading and writing (written forms) more than on listening and speaking (oral forms) even though according to Wiriyachitra (2002), in this decade, many educational institutions, particularly schools, have attempted to reform their curriculum. In particular, English programs or more international programs are currently promoted or included on their curriculum in a number of Thai educational institutions, especially in schools. This is aimed at promoting more English listening and speaking in schools since teaching and learning of English in a number of school classes in Thailand are primarily based on English reading and writing.

As for the story employed in this study, it was adapted and adopted from the story "A Monster Mistake" by Hunt (2003) to be the modified story "Loch Ness" used in the PT. Such a story of Hunt: "A Monster Mistake" was selected and adapted for the participants, particularly for Thai learners since it is the story which is likely to be considerably new to the Thai learners, and, hence, which might interest them to undertake the task (listening to the story and retelling the story, to which they listen, in English). The story was also chosen for the PT because it could be adapted to contain several English articles, a particular linguistic area under study and, then, to elicit English article production from the participants. Besides, the story is appropriate for the production task, given that it could be shortened appropriately in order to create a suitable task for the Thai learners to complete in a single session and, thus, in order to design the effective data collection task. This is due to the fact that the task session should not last so long that the learners are tired when doing the task; otherwise, it may affect the research data and findings.

In addition to the PT design, three pictures related to the story, adopted from the illustrations by Brychta (2003), along with some relevant words, which appear with their meaning in Thai, were presented to the participants in the same supplementary sheet while they were listening to the audio-recorded story "Loch Ness" in English by a native speaker of English. In other words, regarding the story employed in the task, the participants were provided with a visual stimulus (a 3-picture strip cartoon with vocabulary related to each of the pictures below). Then they were asked to listen to the audio-recorded story at the same time looking at the supplementary sheet prior to the written story retelling in the task.

The main reason for the use of the sequence of cartoon pictures and the presentation of the words related to the pictures and the story is that the participants could, perhaps, more clearly understand the story, to which they were listening, through the picture sequence. Moreover, the application of the pictures and the audio-recorded story tend to be a way to minimise individual variation in the basic storyline in particular and, more importantly, to prevent excessive cognitive load in the task. In the study in L2 acquisition of Ortega (1999), for instance, the similar strategies: using a picture story and having participants listen to the story before performing the story retelling were applied in order to diminish individual plot variation and the mental load of the task, as she noted.

As regards the story-retelling task itself, the participants were given the word prompts, part of the storyline listened to, in the sequence corresponding to that of the story in square brackets [ ] in each task item for being used to produce each sentence which is omitted so as to elicit their article production. Why those word prompts with the similar sequence to the story were provided is mainly to reduce the task takers' cognitive task load and to minimise the analysing loads in the production data analysis.

To ensure they will completely understand the meaning of all the word prompts in brackets, the researcher will provide the participants with the word prompts, together with the meanings in Thai of some of the word prompts with which they are unlikely to be familiar. Moreover, due to the fact that a number of words have several meanings, in this way, it tends to be able to help the researcher to make certain that the participants will use the word prompts to represent the meanings expected in their production. This task was pilot-tested with Thai learners and native speakers of English who were not part of the study, so the researcher could investigate any problematic issues and items and revise them based on the pilot results.

When the PT was pilot-tested, especially with the Thai learners, it was found that the task instructions were so long that most of them got confused, and some of them used other determiners rather than English articles. This led the researcher to revise the task instructions to

be more precise and concise and to add some examples of how to do the task to the task to make certain that the participants suitably respond to each of the task items. The research also added the instruction requesting the participants not to use the listed words in front of the noun prompts to the top of every task page with task items.

3.3 Research procedures

For the overall processes of data gathering in this study, piloting the test/task materials of the study (the count-mass GJ task, the FCE task, and the PT) were conducted with certain Thai students mainly to identify and address the shortcomings of each task and to test the research procedures for carrying out each of the tasks in the main research and with certain native speakers of English mainly in order to explore the possibilities of answers in the three tasks. Then the test/task materials were modified and revised accordingly. After the processes of pilot-testing and revising the main tasks, the collection of data were undertaken. In the research data collection, the participants in the experimental group had been given the three test/task materials to perform before being provided with a background information questionnaire to complete whereas those in the control group were asked to conduct only the test/task materials.

The following is a brief research procedure for undertaking each of the test/task materials: the count-mass GJ task, the FCE task, and the PT, respectively.

3.3.1 The count-mass GJ task procedure

The count-mass GJ task, comprising an equal number of grammatical and ungrammatical test items, was administered to the participants, who were informed that no time constraints on their responses were placed by the task. After that, they were asked to make a judgement related to noun countability whether the task items are grammatical or ungrammatical in order to examine the participants' linguistic ability to distinguish between English count and mass nouns. Nevertheless, the present study focuses on the L2 learners' resetting the NMP to the English setting rather than their learned metalinguistic knowledge of NP rules. Thus, the researcher encouraged the learners to carry out the task without any changes of their first response to each of the task items.

3.3.2 The FCE task procedure

For the process of the FCE task, the participants were asked to complete the FCE task once they had completed the count-mass GJ task. That is, they were required to choose one of the three options or English articles provided in each of the FCE task items. Again, since the main focus of

this study is on Thai learners' article use or article pattern in different semantic contexts, not on testing their learned metalinguistic knowledge of article rules, the participants were encouraged not to change their article responses once they chose an article in each target DP in the FCE task to avoid recall of learned rules or metalinguistic knowledge.

3.3.3 The PT procedure

With regard to research procedures for the PT, the participants were asked to conduct the PT activities after completing the other two main tasks: the count-mass GJ task and the FCE task, respectively. Order of presentation of the FCE task and the PT was not counterbalanced, given that the order of presentation of these two tasks does not seem to impact L2 learners' performance on article use, as found in Ionin et al. (2004).

In performing the PT, as discussed earlier, the process: presenting the participants the pictures and the vocabulary relevant to the story "Loch Ness", together with assigning them to listen to the audio-recorded story took place before the learners did the PT itself. To take the task, they were asked to retell the story, to which they had listened, by using the word prompts provided in square brackets [ ] in task items to generate or write the sentences of their story retelling.

3.4 Data analyses and scoring procedures

3.4.1 The analysis of count-mass grammaticality judgement data and the scoring procedure

For analysing data from the count-mass GJ task to address the first question ("Can Thai learners of English reset the Nominal Mapping Parameter from the setting [+arg, -pred] to the English setting [+arg, +pred]?"), the participants' judgement scores were calculated. Before performing any further statistical analysis, the data from the count-mass GJ task concerning the Thai learners' scores of grammaticality judgement of count and mass nouns were checked whether they were normally distributed. If so, the parametric statistical tests were performed; if not, the nonparametric statistical tests were used. To test a normal distribution, Histrograms with normal distribution curves overlaid and/or Normal Q-Q plots were examined. Then statistical analysis (descriptive statistics, paired t-tests, one-way between-groups ANOVA, Bonfferoni approach for multiple comparisons, and Mann-Whitney U statistics) was performed to compare the average judgement scores of different groups, for instance, between different English language proficiency level groups in the experimental group, between the experiment group and the control group and

between each proficiency level group and the control group to see if there is a significant difference between their judgement scores.

In relation to the scoring procedure for the count-mass GJ task, it was scored on the basis of whether the participants' judgements are correct or not. Each of the correct judgements was given one point while incorrect judgements were not given any points. It is supposed that if Thai learners' scores of correct judgments are significantly consistent with those of the control group (English native speakers), it is likely to be assumed that the L2 learners tend to be able to reset their setting of NMP to the target setting. With respect to differences in scores of correct judgement between different English language proficiency level groups in the experimental group, to examine differences as such enables the researcher to see which group demonstrate better ability to reset input or their NMP to the native speaker setting.

For answering the second research question ("Will Thai learners' errors in the use of English articles have predictable patterns?"), the third question ("Do Thai learners of English fluctuate between the definiteness setting and the specificity setting of the Article Choice Parameter in their article use?"), and the fourth question ("Is there a difference between accuracy in the Thai learners' article use in definite ('the') and indefinite ('a') contexts?", and "Do Thai learners have an article preference in their English article choice?"), the data collected from the FCE task and from the PT were analysed. The following is the analysis of each of the tasks and their scoring procedures.

3.4.2 The analysis of forced choice elicitation data and the scoring procedure

With respect to the FCE task, after a normal distribution test was conducted, the statistical analysis (descriptive statistics, paired t-tests, one-way between-groups ANOVA, ANOVA with repeated measure, Bonfferoni approach for multiple comparisons, and Mann-Whitney U statistics) was performed to compare the Thai learners' average scores of accuracy or error rates and of their article choice rates in this task. The data on the Thai learners' accuracy or error patterns and their article choice from this task were analysed as follows.

To address the second research question of the present study, the difference between Thai learners' accuracy or error rates in their choice of English articles in conflicting and nonconflicting semantic contexts obtained from the FCE task was investigated by calculating and comparing article accuracy or error rates across various semantic contexts with and without conflicting article semantics. Moreover, statistical analysis was performed to examine the relationship between the semantic contexts and the Thai learners' article errors or accuracy. That is, statistical

analysis was performed to see whether there are significant differences between their article error or accuracy rates in conflicting semantic contexts and in non-conflicting semantic contexts.

To answer the third research question of this study, the participants' article choice or article responses in different context types collected from the FCE task were analysed by performing the statistical analysis to examine Thai learners' article choice in English in different contexts and the role of semantic features (definiteness and specificity) in the Thai learners' L2 English acquisition.

To address the fourth research question of the current research study, the difference between Thai learners' accuracy rates in the use of 'the' in [+definite] contexts and those in the use of 'a' in [-definite] contexts contexts collected from the FCE task was examined by calculating and comparing article accuracy rates across [+definite] and [-definite] semantic contexts. In addition, their article misuse rates (i.e., 'a' misuse in [+definite] and 'the' misuse in [-definite] semantic contexts) were also calculated and compared. In so doing, statistical analysis was performed to look at whether there is a significant difference between their article accuracy rates in 'the' contexts and in 'a' contexts and whether they demonstrate an article preference in their English article use.

As for the FCE task scoring procedures, the data on this task was calculated and scored on the basis of the rates of their English article use, that is, their use rates of 'a', 'the', and 'null', including correct use or misuse of 'a' and 'the' and omission of the articles. In other words, the rates of their 'a', 'the' and 'null' article choice will be calculated and compared in the analysis of the FCE data.

3.4.3 The analysis of production data and the scoring procedure

Concerning the matter of data analysis of the PT, production data were analysed to provide more insight into the Thai learners' accuracy or error patterns and their article use in different types of context, related to the second, third, and fourth research questions ("Will Thai learners' errors in the use of English articles have predictable pattern?", "Do Thai learners of English fluctuate between the definiteness setting and the specificity setting of the Article Choice Parameter in their article use?", "Is there a difference between accuracy in the Thai learners' article use in definite ('the') and indefinite ('a') contexts?" , and "Do Thai learners have an article preference in their English article choice?", respectively).

Similarly, after the PT was scored, statistical analysis (descriptive statistics, paired t-tests, one-way between-groups ANOVA, ANOVA with repeated measure, Bonfferoni approach for multiple comparisons, and Mann-Whitney U statistics) was performed (1) to explore the relationship

between the semantic contexts and the Thai learners' article accuracy and errors, that is, to examine whether there are significant differences in their article accuracy and error rates in different context types (conflicting versus non-conflicting), (2) to investigate their article use in different semantic contexts and the role of definiteness and specificity semantic features in their L2 acquisition of English articles, and (3) to investigate whether there is a difference between accuracy in the Thai learners' definite ('the') and indefinite ('a') article choice and whether they show an article preference in their choice of English articles. Regarding the scoring procedure, the PT data was calculated and scored on the basis of the rates of their English article choice, that is, the rates of their 'a', 'the' and 'null' article choice, including 'a' and 'the' correct use or misuse and omission of the articles.

Chapter 4: Results of the Count-Mass Grammaticality Judgement (GJ) Task

This chapter describes the results of the count-mass grammaticality judgement (GJ) task. The main aim was to investigate whether Thai-L1 English-L2 learners can reset to the English setting of the Nominal Mapping Parameter (NMP). The research question and prediction related were as follows:

Research question 1: Can Thai learners of English reset the Nominal Mapping Parameter from the Thai setting [+arg, -pred] to the English setting [+arg, +pred]?

Prediction: It is hypothesised that Thai learners can reset the Nominal Mapping Parameter (NMP) to the target setting (the English setting).

The participants who were asked to perform the GJ task were 42 intermediate, 43 upper-intermediate, and 33 advanced adult Thai-L1 learners of L2 English (the experimental group) and 10 adult native English (L1) speakers (the control group). At the time of data collection, the Thai learners lived in Thailand, and the native speakers of English in the UK. All of the Thai learners primarily used and spoke Thai as their first language. In this chapter, the results concerning the Thai participants' performance on the GJ task are reported. The Thai-L1 experimental groups and the native English speaking control group's results of the GJ task are then compared and reported.

4.1 Results of the Thai L2 learners' performance on the count-mass grammaticality judgement (GJ) task

The data on the GJ task were calculated and scored on the basis of the number of correct and incorrect judgements. Prior to any further statistical analysis, a normal distribution test was conducted. In doing this, Histograms with normal distribution curves overlaid and/or Normal Q-Q plots were investigated. It was found that the data on their judgement scores were approximately normally distributed. Parametric statistical tests were therefore applied for the statistical analyses of the GJ task.

4.1.1 Overall results for the Thai L2 learners' performance on count-mass grammaticality judgement

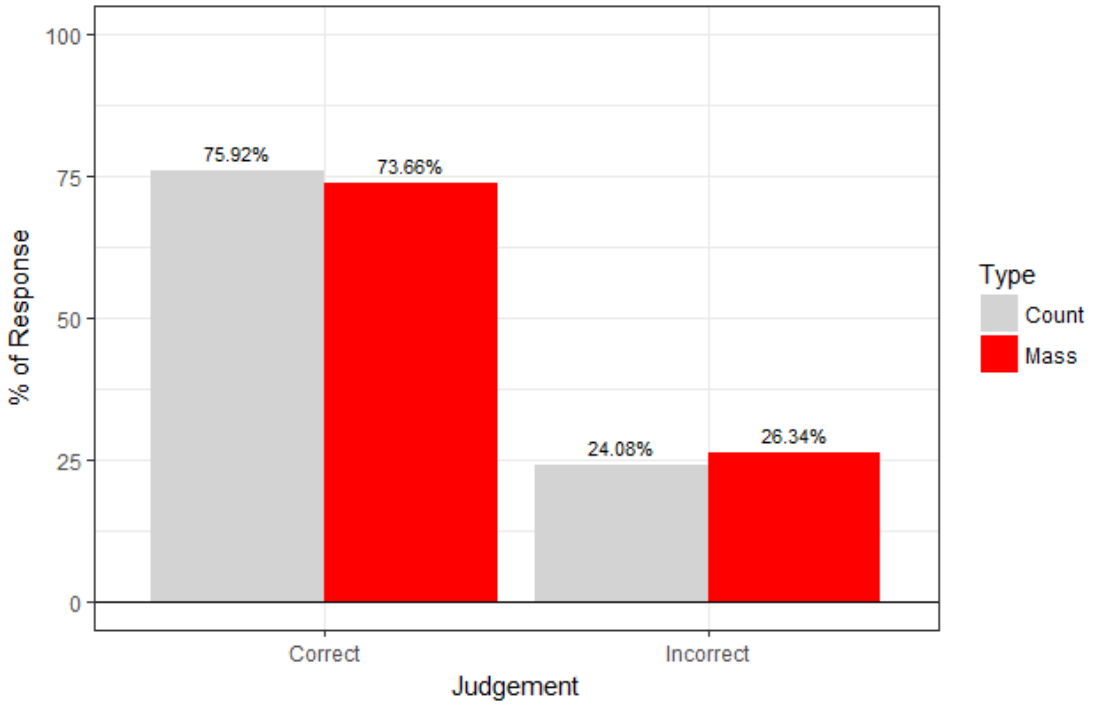
The table 4.1 and the figure 4.1 give overall scores of correct and incorrect count-mass grammaticality judgement for 118 Thai L2 learners of English in percentages. The results reported

in the table 4.1 and the figure 4.1 are obtained from twelve test items, which include count nouns, and twelve other test items, which include mass nouns.

Table 4.1 Overall scores of correct and incorrect count-mass grammaticality judgement (n=118)

NP Types	Judgement		Total
	Correct	Incorrect	
Count (12 items)	1,075 (75.92%)	341 (24.08%)	1,416 (100%)
Mass (12 items)	1,043 (73.66%)	373 (26.34%)	1,416 (100%)

Figure 4.1 Correct and incorrect judgement of count nouns vs. mass nouns



As shown in the table and the figure above, across the range of twelve test items focusing on count nouns, the Thai L2 learners exhibited high accuracy rates in their grammaticality judgement of this noun type (75.92%). Similarly, across the twelve other test items focusing on mass nouns, they correctly judged mass nouns at 73.66%. Their error rates in count and mass noun grammaticality judgements were fairly low, 24.08% for the former and 26.34% for the latter. They, therefore, tended to appropriately judge both count and mass nouns most of the time since they correctly judged count nouns as well as mass nouns more than 70% of the time whereas incorrect judgements were less than 30%. These results can provide some evidence that supports the prediction in this study that Thai learners can reset the Nominal Mapping Parameter (NMP) to

the target setting (the English setting). This is because it can be assumed from the results that they had high ability in differentiating between English count and mass nouns but not native speaker level.

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In order to further compare the Thai learners' performance on count nouns vs. mass nouns, the statistical analysis was performed by using paired t-tests. The results of paired t-tests on the Thai participants' average scores of correct count-mass grammaticality judgement are given in the table 4.2.

Table 4.2 Thai L2 learners' correct count-mass grammaticality judgement

NP Types	**Correct judgement**					**Significant difference**
	n	$\overline{X}$	**SD**	***t***	**p-value**	
Count (12 items)	118	9.11	1.75	16.89	0.206	-
Mass (12 items)	118	8.84	1.83			

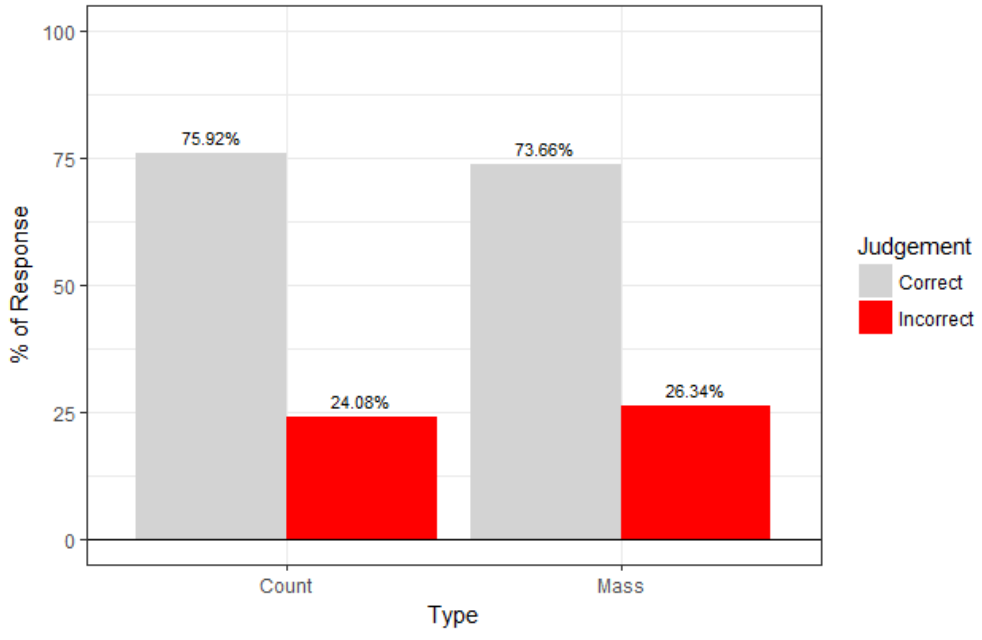
As the table 4.2 shows, there was no statistically significant difference between count and mass correct judgement ($p > 0.05$). That is, the Thai participants' accuracy rates in their grammaticality judgement of count nouns were not significantly different from those of mass nouns. This means that the Thai L2 learners' error rates in grammaticality judgement between count nouns and mass nouns did not differ significantly. Thus, it may be said that noun countability (count and mass) did not appear to affect their performance on count-mass grammaticality judgement.

In order to compare the Thai experiment group's correct judgement of count nouns and mass nouns with their incorrect judgement to look at their ability in making a count-mass distinction in English NPs, the statistical tests were performed by using paired t-tests. The results of statistical comparisons between correct and incorrect judgement of count and mass nouns are reported in the table 4.3. The figure 4.2 was produced to give a clear view of the results for their accuracy rates vs. error rates in count-mass grammaticality judgement in percentages.

Table 4.3 Thai L2 learners' correct vs. incorrect count-mass grammaticality judgement

Type	***n***	$\overline{X}$	**SD**	***t***	**p-value**	**Significant difference**
Count (12 items)						
Correct judgement (C)	118	9.11	1.75	19.33	< 0.001	C-IC
Incorrect judgement (IC)	118	2.89	1.75			
Mass (12 items)						
Correct judgement	118	8.84	1.83	16.89	< 0.001	C-IC
Incorrect judgement	118	3.16	1.83			
Overall Count-Mass (24 items)						
Correct judgement	118	17.95	2.72	23.73	< 0.001	C-IC
Incorrect judgement	118	6.05	2.72			

Figure 4.2 Correct vs. incorrect judgement of count nouns and mass nouns



The figure 4.2 above demonstrates that when making grammaticality judgement of count nouns as well as mass nouns, the Thai learners could accurately judge count nouns (75.92%) and mass nouns (73.66%) at a relatively higher level when comparing with incorrect judgement, at 24.08% for count noun grammaticality judgement and 26.34% for mass noun. As seen from the table 4.3, when comparing between correct and incorrect count-mass grammaticality judgement by using paired t-tests, it was found that there were statistically significant differences between correct and incorrect count-mass noun judgement ($p < 0.001$). More specifically, overall, there was a significant difference between their accuracy rates and their error rates in their judgement of count nouns, of mass nouns, and of count-mass nouns. Their average scores of correct judgement of count and mass nouns were significantly higher than those of incorrect judgement. Again, this can be fairly clear evidence that the Thai learners exhibited high ability in making a distinction between English count and mass nouns.

4.1.2 Results of the Thai L2 learners' count-mass grammaticality judgment by proficiency level

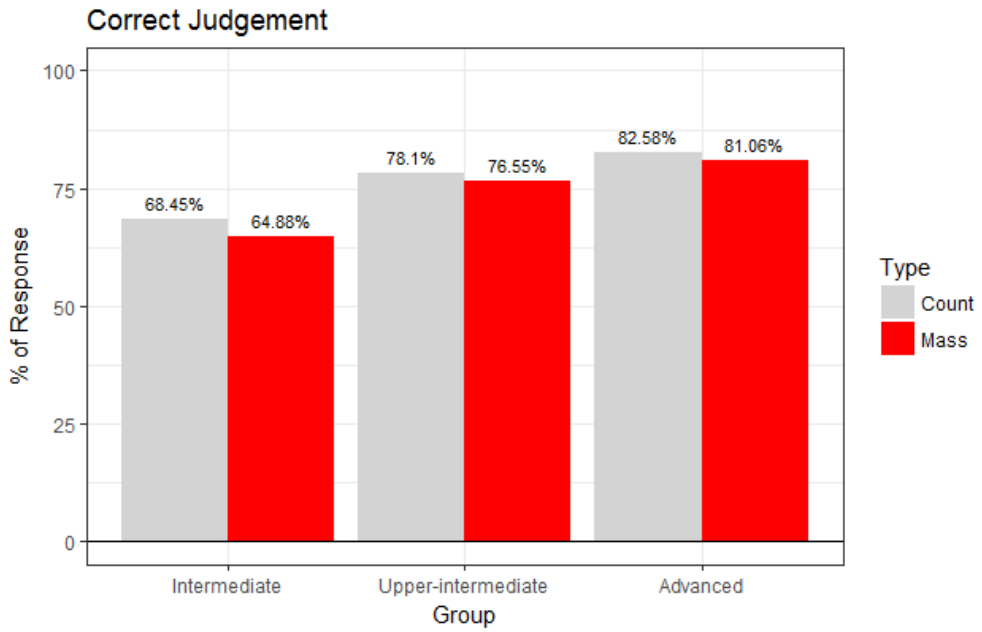
The table 4.4 and the figure 4.3 summarize the scores of correct and incorrect count-mass grammaticality judgement for each English proficiency level group of Thai learners in percentages. The Thai learners were divided into three different English proficiency level groups, including intermediate, upper-intermediate, and advanced groups. In the proficiency groups, there were 118 Thai L2 learners in total, comprising 42 intermediate, 43 upper-intermediate, and 33 advanced learners. The results reported in the table 4.4 and the figure 4.3 are gained from the learners' performance on their taking of twelve GJ test items, which include count nouns, and of twelve other GJ test items, which include mass nouns.

Table 4.4 Scores of correct and incorrect count-mass grammaticality judgement in each English proficiency level group of Thai learners

(n = 118)

NP Types	Judgement		Total
	Correct	Incorrect	
Intermediate group (n = 42)			
Count (12 items)	345 (68.45%)	159 (31.55%)	504 (100%)
Mass (12 items)	327 (64.88%)	177 (35.12%)	504 (100%)
Upper-intermediate group (n = 43)			
Count (12 items)	403 (78.10%)	113 (21.90%)	516 (100%)
Mass (12 items)	395 (76.55%)	121 (23.45%)	516 (100%)
Advanced group (n = 33)			
Count (12 items)	327 (82.58%)	69 (17.42%)	396 (100%)
Mass (12 items)	321 (81.06%)	75 (18.94%)	396 (100%)

Figure 4.3 Correct judgement of count nouns vs. mass nouns in each English proficiency level group



As shown in the table 4.4 and the figure 4.3, high accuracy rates were found in each proficiency group of the Thai participants' grammaticality judgement of count nouns (68.45% for intermediate group, 78.10% for upper-intermediate, and 82.58% for advanced). Likewise, the

learners in each group accurately judged mass nouns at a high percentage (64.88% for intermediate group, 76.55% for upper-intermediate, and 81.06% for advanced). This, then, can be interpreted that each proficiency group of the Thai learners had relatively low error rates in their grammaticality judgement of count nouns. Besides, it can be assumed from these findings that the Thai L2 learners were able to making a distinction between English count and mass nouns. Furthermore, as can be seen from the results, their accuracy in making grammaticality judgement of count and mass nouns increased when their English proficiency improved.

The statistical analysis was performed by using paired t-tests in order to further compare the performance on count nouns vs. mass nouns in each proficiency group of the Thai learners. The results of paired t-tests on each group of the participants' average scores of correct and incorrect count-mass grammaticality judgement are reported in the table 4.5 below.

Table 4.5 Correct count- mass grammaticality judgement in each English proficiency level group

NP Type	**Correct judgement**					**Significant difference**
	n	$\bar{X}$	**SD**	***t***	**p-value**	
Intermediate group						
Count	42	8.21	1.70	1.11	0.273	-
Mass	42	7.79	1.47			
Upper-intermediate group						
Count	43	9.37	1.79	0.49	0.624	-
Mass	43	9.19	1.87			
Advanced group						
Count	33	9.91	1.21	0.56	0.582	-
Mass	33	9.73	1.55			

From the table 4.5 above, the results of paired t-tests on each group of the participants' average scores of correct count-mass grammaticality judgement show that there was no significant difference between their correct grammaticality judgement of count nouns and mass nouns ($p > 0.05$). In the table 4.5, it was found that accuracy rates in grammaticality judgement between count nouns and mass nouns by each proficiency group ($p = 0.273$ for intermediate, $p = 0.624$ for upper-intermediate, and $p = 0.582$ for advanced) did not differ significantly. The Thai learners in each group seemed to accurately judge count nouns at a higher percentage than mass nouns, as shown in the figure 4.3. However, the results of paired t-tests in table 4.5 confirm that there was

no statistically significant difference in their accuracy and error rates between each proficiency group's grammaticality judgement of count nouns and mass nouns. Therefore, it can be assumed that noun countability (count and mass) did not appear to affect their performance on count-mass grammaticality judgement.

In order to compare correct judgement of count nouns and mass nouns with their incorrect judgement in each proficiency group of the Thai learners, the statistical tests were performed by using paired t-tests. The results of statistical comparisons between correct and incorrect judgement of count and mass nouns by intermediate, upper- intermediate and advanced Thai L2 learners are reported in the table 4.6, 4.7, and 4.8, respectively. The figure 4.4 and 4.5 were produced to provide a clear view of the results for their accuracy rates vs. error rates in grammaticality judgement of count nouns and of mass nouns in percentages.

Figure 4.4 Correct vs. incorrect judgement of count nouns in each English proficiency level group

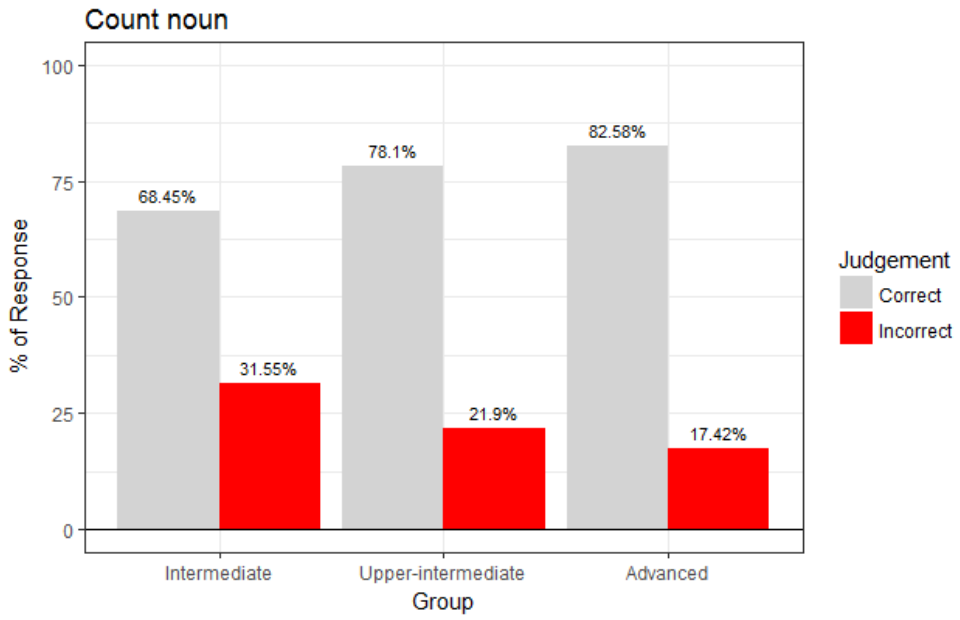
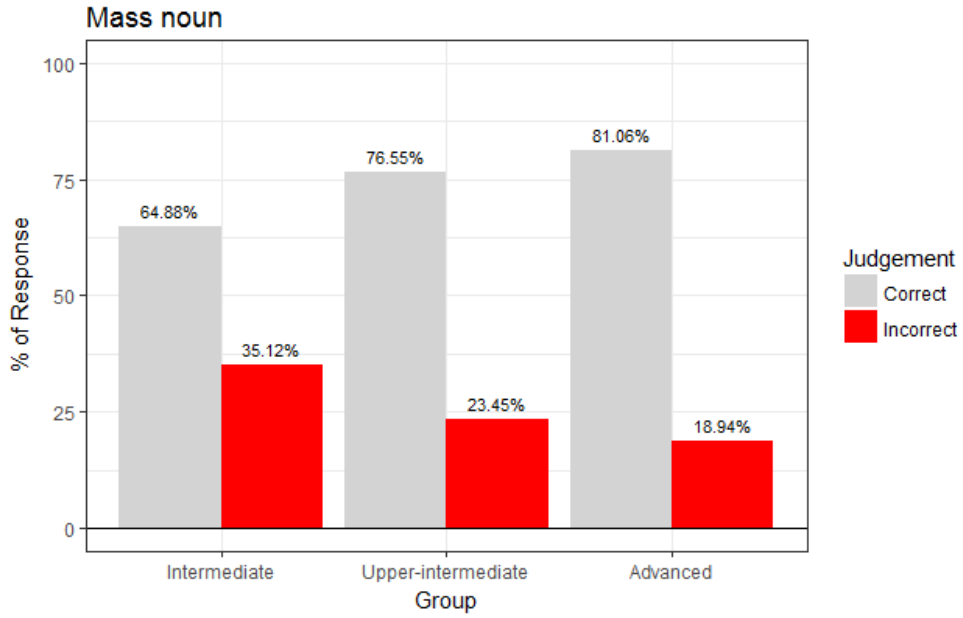


Figure 4.5 Correct vs. incorrect judgement of mass nouns in each English proficiency level group



For count nouns, the figure 4.4 shows that when making grammaticality judgement of count nouns, the Thai learners in each proficiency group could correctly judge count nouns (68.45% for intermediate learners, 78.10% for upper-intermediate, and 82.58% for advanced) at a considerably higher percentage when comparing with incorrect grammaticality judgement of count nouns, at 31.55% for the intermediate group, 21.90% for upper-intermediate, and 17.42% for advanced. Similarly, the figure 4.5 demonstrates that the Thai learners in each proficiency group exhibited accuracy in their grammaticality judgement of mass nouns (64.88% for intermediate learners, 76.55% for upper-intermediate, and 81.06% for advanced) at a considerably higher level when comparing with error rates in their grammaticality judgement of mass nouns. The intermediate group committed incorrect grammaticality judgement of mass nouns at 35.12%, upper-intermediate at 23.45%, and advanced at 18.94%.

As seen in the figure 4.4 and 4.5, it was found in every proficiency group that correct judgement was considerably higher than incorrect judgement. This can be confirmed by the results from the statistical analysis by performing pair t-tests. It was also found that when comparing between correct and incorrect count-mass grammaticality judgement by using paired t-tests, it was found that there were statistically significant differences between each group of the participants' correct and incorrect count-mass noun judgement ($p < 0.001$). That is, for the Thai learners in every group of English proficiency level, there was a significant difference between their accuracy rates and their error rates in their judgement of count nouns and mass nouns. Each group of the Thai learners' average scores of correct judgement of both count nouns and mass nouns were significantly higher than those of incorrect judgement. These results were reported in following

tables (the table 4.6-4.8). Thus, these results can be some evidence that provide support that the Thai learners showed high ability in making a distinction between English count and mass nouns.

Table 4.6 Intermediate group's correct and incorrect count-mass grammaticality judgement

Intermediate group

Type	***n***	$\overline{X}$	**SD**	***t***	**p-value**	**Significant difference**
Count (12 items)						
Correct judgement (C)	42	8.21	1.70	8.42	< 0.001	C-IC
Incorrect judgement (IC)	42	3.79	1.70			
Mass (12 items)						
Correct judgement (C)	42	7.79	1.47	7.85	< 0.001	C-IC
Incorrect judgement (IC)	42	4.21	1.47			

Table 4.7 Upper-intermediate group's correct and incorrect count-mass grammaticality judgement

Upper-intermediate group

Type	***n***	$\overline{X}$	**SD**	***t***	**p-value**	**Significant difference**
Count (12 items)						
Correct judgement (C)	43	9.37	1.79	12.38	< 0.001	C-IC
Incorrect judgement (IC)	43	2.63	1.79			
Mass (12 items)						
Correct judgement (C)	43	9.19	1.87	11.19	< 0.001	C-IC
Incorrect judgement (IC)	43	2.81	1.87			

Table 4.8 Advanced group's correct and incorrect count-mass grammaticality judgement

Advanced group

Type	*n*	$\overline{X}$	SD	*t*	p-value	Significant difference
Count (12 items)						
Correct judgement (C)	33	9.91	1.21	18.58	< 0.001	C-IC
Incorrect judgement (IC)	33	2.09	1.21			
Mass (12 items)						
Correct judgement (C)	33	9.73	1.55	13.84	< 0.001	C-IC
Incorrect judgement (IC)	33	2.27	1.55			

4.1.3 Results of the Thai L2 learners' count-mass grammaticality judgement between different English proficiency level groups

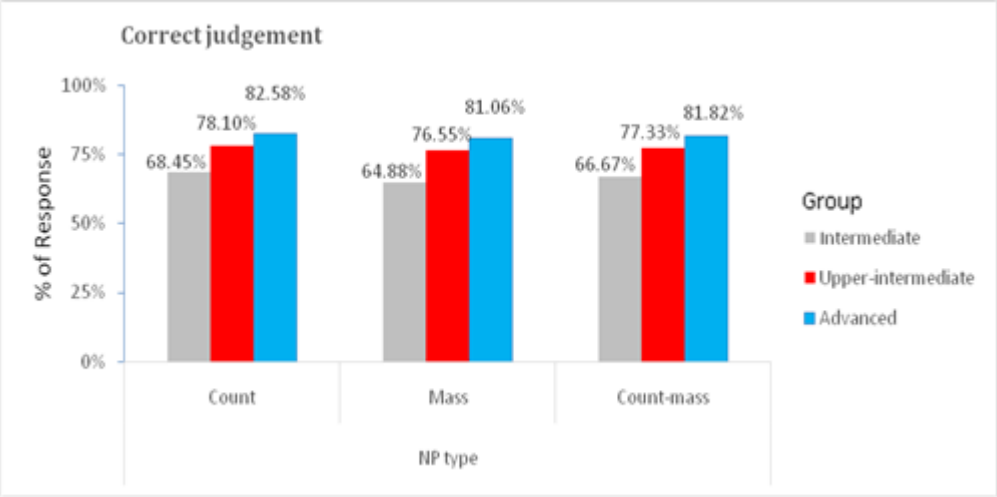
The table 4.9 illustrates the scores of correct and incorrect count-mass grammaticality judgement for 118 Thai L2 learners with different English proficiency level in percentages. The Thai participants were grouped according to proficiency level as intermediate, upper-intermediate, and advanced. The figure 4.6 reports the results on their accuracy in count-mass grammaticality judgement in percentages between three different English proficiency groups.

Table 4.9 Scores of correct and incorrect count-mass grammaticality judgement in different English proficiency level groups of Thai learners

(n=118)

Group	Count		Mass		Count-mass NPs	
	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect
Intermediate (n = 42)	345 (68.45%)	159 (31.55%)	327 (64.88%)	177 (35.12%)	672 (66.67%)	336 (33.33%)
Upper-intermediate (n = 43)	403 (78.10%)	113 (21.90%)	395 (76.55%)	121 (23.45%)	798 (77.33%)	234 (22.67%)
Advanced (n = 33)	327 (82.58%)	69 (17.42%)	321 (81.06%)	75 (18.94%)	648 (81.82%)	144 (18.18%)

Figure 4.6 Correct count-mass grammaticality judgement between different English proficiency groups



As shown in the table and the figure above, across the range of twelve test items focusing on count nouns, the advanced group of Thai learners had the highest accuracy rates in their grammaticality judgement of count nouns (82.58%). Furthermore, the upper-intermediate group had a higher percentage of correct judgement of count nouns (78.10%) than the intermediate group (68.45%). In the same way, across the twelve other test items focusing on mass nouns, it was found that the advanced learners' accuracy rates in their judgement of mass nouns (81.06%) were the highest; that of the upper-intermediate group (76.55%) were higher than the intermediate group (64.88%). Considering overall accuracy in count-mass grammaticality judgement (across 24 test items), the advanced group's performance was better than that of upper-intermediate and intermediate groups. That is, they correctly judged count and mass nouns at the highest rate of 81.82% whereas the upper-intermediate and intermediate groups at 77.33% and 66.67%, respectively. It can be assumed from these results that when making grammaticality judgement of English count and mass nouns, the Thai L2 learners' improvement in accuracy correlated positively with English proficiency. Therefore, the proficiency seems to influence their performance on count-mass grammaticality judgement.

In order to further compare the Thai learners' accuracy rates in their grammaticality judgement of count nouns and mass nouns, and their overall accuracy between different English proficiency level groups, the statistical analysis was performed by using one-way analysis of variance (ANOVA) and Bonfferoni approach for multiple comparisons. The results of one-way ANOVA and multiple comparisons on different proficiency groups of the Thai participants' average scores of correct count-mass grammaticality judgement are given in the following table.

Table 4.10 Correct count-mass grammaticality judgement between different English proficiency groups

English Proficiency Group	Correct judgement					Significant difference
	n	$\bar{X}$	**SD**	***F***	**p-value**	
Count (12 items)						
Intermediate (I)	42	8.21[a]	1.70	11.07	< 0.001	I vs. UI I vs. A
Upper-intermediate (UI)	43	9.37[b]	1.79			
Advanced (A)	33	9.91[b]	1.21			
Mass (12 items)						
Intermediate (I)	42	7.79[a]	1.47	14.33	< 0.001	I vs. UI I vs. A
Upper-intermediate (UI)	43	9.19[b]	1.87			
Advanced (A)	33	9.73[b]	1.55			
Count-mass NPs (24 items)						
Intermediate (I)	42	16.00[a]	1.98	25.90	< 0.001	I vs. UI I vs. A
Upper-intermediate (UI)	43	18.56[b]	2.69			
Advanced (A)	33	19.64[b]	2.04			

The results of one-way ANOVA and Bonfferoni appoarch on different groups of the participants' average scores of correct count-mass grammaticality judgement in the table 4.10 above reveal that there were statistically significant differences in their correct count-mass grammaticality judgement between different English proficiency level groups ($p < 0.001$). More specifically, it was found that the upper-intermediate and advance groups' average scores in their correct grammaticality judgement of count nouns, of mass nouns, and of count-mass nouns were significantly higher than the intermediate group. However, that of the upper-intermediate group and the advance group did not differ significantly. Again, it can be assumed from these results which are consistent with the results shown in the figure 4.6 that proficiency level tends to have some effect upon their performance on grammaticality judgement of count and mass nouns.

4.2 Results for the performance on the count-mass grammaticality judgement (GJ) task between the Thai L2 learners and the English native speakers

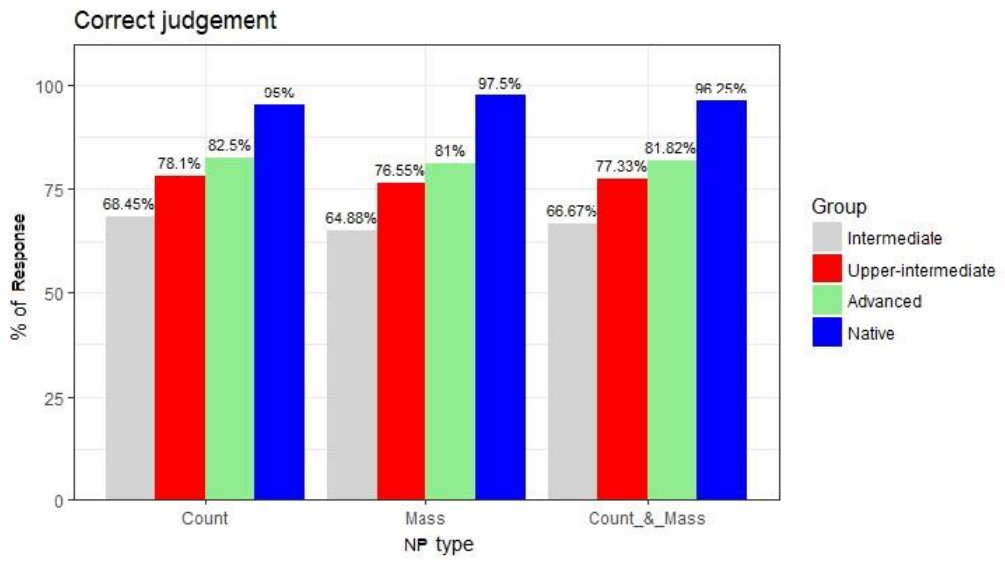
The Thai participants' and the native English speakers' performance on the GJ task are compared to examine whether the Thai learners of L2 English can reset the Nominal Mapping Parameter (NMP) to the NMP setting for English. The related results are reported in the following.

The table 4.11 provides the scores of correct and incorrect count-mass grammaticality judgement for 42 Thai intermediate, 43 Thai upper-intermediate, 33 Thai advanced learners, and 10 English native speakers in percentages. The figure 4.7 depicts the accuracy rates in count-mass grammaticality judgement between different participant groups.

Table 4.11 Scores of correct and incorrect count-mass grammaticality judgement in each proficiency group of Thai learners and the native English speaker group

Group	Judgement		Total
	Correct	Incorrect	
Count (12 items)			
Thai intermediate learners	345 (68.45%)	159 (31.55%)	504 (100%)
Thai upper-intermediate learners	403 (78.10%)	113 (21.90%)	516 (100%)
Thai advanced learners	327 (82.58%)	69 (17.42%)	396 (100%)
Native speakers	114 (95%)	6 (5%)	120 (100%)
Mass (12 items)			
Thai intermediate learners	327 (64.88%)	177 (35.12%)	504 (100%)
Thai upper-intermediate learners	395 (76.55%)	121 (23.45%)	516 (100%)
Thai advanced learners	321 (81.06%)	75 (18.94%)	396 (100%)
Native speakers	117 (97.50%)	3 (2.50%)	120 (100%)
Count & Mass (24 items)			
Thai intermediate learners	672 (66.67%)	336 (33.33%)	1008 (100%)
Thai upper-intermediate learners	798 (77.33%)	234 (22.67%)	1032 (100%)
Thai advanced learners	648 (81.82%)	144 (18.18%)	792 (100%)
Native speakers	231 (96.25%)	9 (3.75%)	240 (100%)

Figure 4.7 Correct count-mass grammaticality judgement between each English proficiency level group of the Thai learners and the native speakers of English



The results in the table 4.11 and the figure 4.7 show that the native English group demonstrated the highest percentage of correct grammaticality judgement of English count nouns (95%), mass nouns (97.5%), and both count and mass nouns (96.25%). As regards the Thai participants' grammaticality judgement, they could correctly judge English count nouns at 68.45% for intermediate group, 78.1% for upper-intermediate, and 82.5% for advanced. Likewise, they had a similar rate of their correct judgement of English mass nouns (64.88% for intermediate group, 76.55% for upper-intermediate, and 81% for advanced). As can be seen, the Thai advanced learners outperformed the other two proficiency groups in their judgement of count nouns as well as mass nouns while between the Thai intermediate and upper-intermediate learners, the latter performed better than the former. For their overall accuracy rates in count-mass grammaticality judgement, the advanced group exhibited a higher percentage of correct judgement of count and mass nouns (88.82%) than the intermediate (66.67%) and upper-intermediate (77.33%) groups. From the findings, it can be concluded that there seems to be some improvement in the Thai learners' accuracy in count-mass grammaticality judgement with English proficiency and that the native speakers outperformed the Thai learners, particularly in judgement of mass nouns.

The statistical tests were performed by using one-way ANOVA and Bonfferoni approach for multiple comparisons in order to further compare accuracy rates in the grammaticality judgement of count and mass nouns between different groups of the research participants. The results of the statistical analysis on different groups' average scores of correct count-mass grammaticality judgement are reported in the table 4.12.

Table 4.12 Correct count-mass grammaticality judgement between each English proficiency group of the Thai learners and the native English speakers

Group	Correct judgement					Significant difference
	n	$\overline{X}$	***SD***	**F**	**p-value**	
Count (12 items)						
Thai intermediate learners (Int)	42	8.21[a]	1.70	14.13	< 0.001	Int vs. Upp Int vs. Adv Int vs. NS Upp vs. NS
Thai upper-intermediate learners (Upp)	43	9.37[b]	1.79			
Thai advanced learners (Adv)	33	9.91[bc]	1.21			
Native speakers (NS)	10	11.40[c]	1.08			
Mass (12 items)						
Thai intermediate learners (Int)	42	7.79[a]	1.47	20.16	< 0.001	Int vs. Upp Int vs. Adv Int vs. NS Upp vs. NS Adv vs. NS
Thai upper-intermediate learners (Upp)	43	9.19[b]	1.87			
Thai advanced learners (Adv)	33	9.73[b]	1.55			
Native speakers (NS)	10	11.70[c]	0.48			
Count & Mass (24 items)						
Thai intermediate learners (Int)	42	16.00[a]	1.98	34.65	< 0.001	Int vs. Upp Int vs. Adv Int vs. NS Upp vs. NS Adv vs. NS
Thai upper-intermediate learners (Upp)	43	18.56[b]	2.69			
Thai advanced learners (Adv)	33	19.64[b]	2.04			
Native speakers (NS)	10	23.10[c]	1.29			

In the table 4.12, the results of statistical tests on different groups of the participants' average scores of correct count-mass grammaticality judgement indicate that there were statistically significant differences in their accuracy rates of count-mass grammaticality judgement between each proficiency group of the Thai learners and the native English speakers ($p < 0.001$), except for accuracy rates in judgement of English count nouns between the advanced group and the native speakers ($p > 0.05$). That is, the native speakers' average scores in their correct judgement of count nouns and of mass nouns and those in their overall correct judgement were significantly higher than those of every Thai proficiency group except the advanced group as the native speakers' and the Thai advanced learners' average scores in their correct judgement of count nouns did not differ significantly. Taking these results and the statistical results on different groups of the participants' average scores of correct count-mass grammaticality judgement into account, it can be argued that the Thai advanced learners of English appeared to be able to reset the NMP to the English NMP setting due to their performance on count-mass grammaticality judgement being somewhat consistent with the English native speakers'. This, hence, can be

provide evidence that supports the prediction in the present study that Thai L2 learners can reset the NMP from the Thai setting to the NMP setting for English.

Chapter 5: Results of the Forced Choice Elicitation (FCE) Task

This chapter presents the results of the forced choice elicitation (FCE) task. It was mainly aimed at examining (1) whether Thai-L1 English-L2 learners' accuracy and/or errors in their English article choice have non-random or predictable patterns, (2) whether the Thai learners fluctuate between the two settings of the Article Choice Parameter (ACP): the definiteness setting and the specificity setting in their L2 English article choice, (3) whether there is a difference between accuracy in the Thai learners' English definite (*the*) and indefinite (*a*) article choice, along with whether they have an article preference in their L2 English article use. The related research questions and predictions were as follows:

Research question 2: Will Thai learners' errors in the use of English articles have predictable patterns?

Prediction: It is predicted that the article errors produced by L1 Thai learners of L2 English will have non-random or predictable patterns.

Research question 3: Do Thai learners of English fluctuate between the definiteness setting and the specificity setting of the Article Choice Parameter in their L2 English article use?

Prediction: It is expected that Thai learners will fluctuated between the definiteness and specificity ACP settings in their L2 English article choice.

Research question 4: (A) Is there a difference between accuracy in Thai learners' English L2 article choice in definite (*the*) and indefinite (*a*) contexts; (B) do Thai learners have an article preference in their choice of L2 English articles?

Prediction: (A) It is hypothesised that Thai learners of L2 English will more correctly employ *the* in [+definite] contexts than *a* in [-definite] contexts; (B) it is predicted that Thai L2 learners will have an article preference (i.e., prefer *the* to *a*) in their English article choice.

The reasons for these predictions are explained and presented in chapter 1 in the section on research questions and predictions of the study.

The participants who were requested to do the FCE task were 42 intermediate, 43 upper-intermediate, and 33 advanced adult Thai learners of L2 English (the experimental group) and 10 adult native English speakers (the control group). At the time of data collection, the Thai participants, all of whom primarily used and spoke Thai as their L1, studied and lived in Thailand,

and the native speakers of English lived in the UK. In this chapter, the results concerning the Thai L2 learners' performance on the FCE task are reported. The FCE results reported are obtained from twenty test items targeting the indefinite article (*a*), in which include eight conflicting and twelve nonconflicting semantic contexts, and twenty other test items targeting the definite article (*the*), in which include eight conflicting and twelve nonconflicting semantic contexts.

The data collected from the FCE task were calculated and scored on the basis of the rates of their English article choice, that is, their use rates of *a*, *the*, and *null*, including correct use or misuse of *a* and *the* and omission of the articles. Before performing any further statistical analysis, a normal distribution test was conducted. It was found that the data on their article choice rates were normally distributed. Parametric statistical tests were then performed to analyse the data on the participants' article accuracy or error patterns and their English article choice from the FCE task. In so doing, their average scores of English article choice rates, including article accuracy or error rates were compared.

5.1 Overall results for the Thai L2 learners' performance on the forced choice elicitation (FCE) task

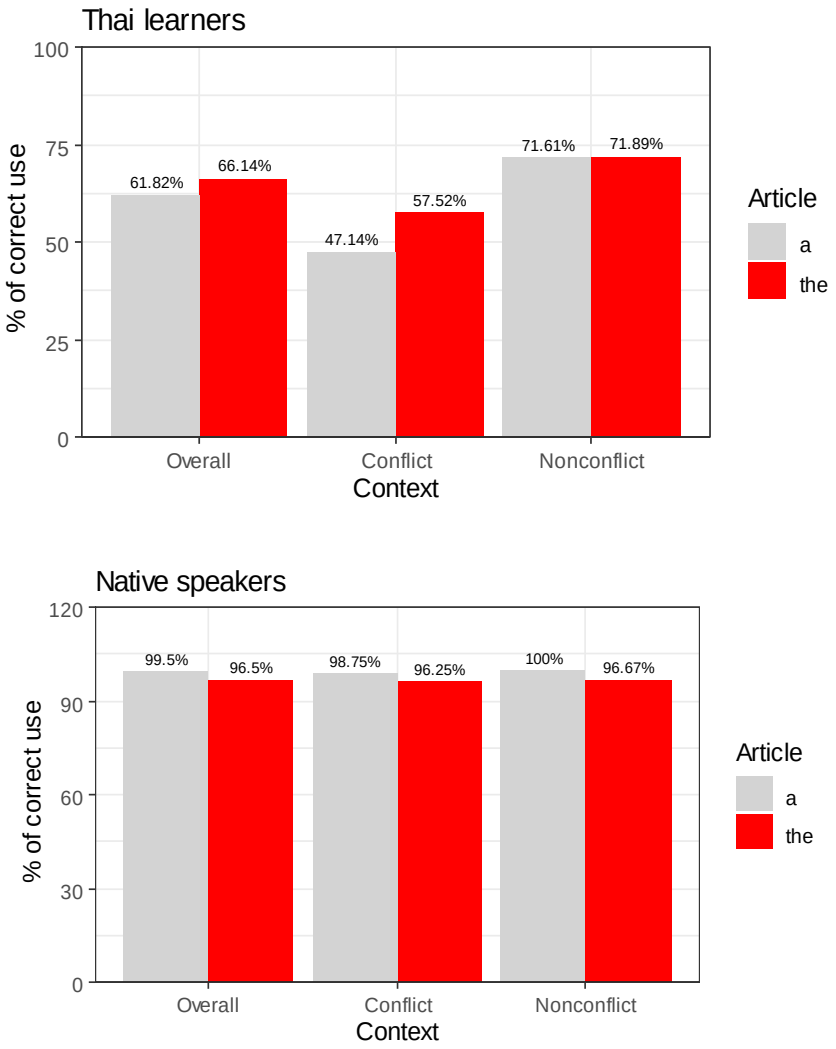
The table 5.1 provides overall scores of correct use and misuse of the indefinite article (*a*) and the definite article (*the*) in English for 118 Thai L2 learners of English in percentages. For the figure 5.1, it shows the learners' accuracy rates in the use of *a* vs. those of *the* in [-definite] and [+definite] contexts (i.e., in '*a*' and '*the*' contexts) and in the conflicting semantic contexts: [-definite, +specific] for *a* and [+definite, -specific] for *the*, and in the nonconflicting contexts: [-definite, -specific] for *a* and [+definite, +specific] for *the*, respectively.

Table 5.1 Overall scores of correct use and misuse of *a* and *the* by the Thai learners and by the native controls

Articles	Article use rates	
	Correct use	**Misuse**
Thai learners (n=118)		
Overall (‘*a’* and ‘*the*’ contexts)		
a (20 items) *the* (20 items)	1,459 (61.82%) 1,561 (66.14%)	530 (22.46%) 660 (27.97%)
Conflicting semantic contexts		
a (8 items) *the* (8 items)	445 (47.14%) 543 (57.52%)	280 (29.66%) 431 (45.66%)
Nonconflicting sematic contexts		
a (12 items) *the* (12 items)	1,014 (71.61%) 1,018 (71.89%)	250 (17.66%) 229 (16.17%)
Native controls (n=10)		
Overall (‘*a’* and ‘*the*’ contexts)		
a (20 items) *the* (20 items)	199 (99.50%) 193 (96.50%)	5 (2.50%) 1 (0.50%)
Conflicting semantic contexts		
a (8 items) *the* (8 items)	79 (98.75%) 77 (96.25%)	2 (2.50%) 1 (1.25%)
Nonconflicting sematic contexts		
a (12 items) *the* (12 items)	120 (100%) 116 (96.67%)	3 (2.50%) 0 (0%)

Note: the above table presents correct use and misuse rates of English articles. For English article omission rates (article use rates of null), the Thai participants’ scores and percentages can be looked as in the table 5.7.

Figure 5.1 Thai leaners' and native controls' correct use of *a* vs. *the* in each context type



As the table 5.1 and the figure 5.1 show, across the range of twenty test items targeting *a*, the native controls accurately used *a* at 99.5% for overall contexts, 98.75% for the conflicting semantic contexts, and 100% for the nonconflicting while the Thai learners correctly used *a* at 61.82% for overall contexts, 47.14% for the conflicting semantic contexts, and 71.61% for the nonconflicting. Across the twelve other test items targeting *the*, the control group had *a* correct use at 96.5% for overall contexts, 96.25% for the conflicting semantic contexts, and 96.67% for the nonconflicting. For the Thai learners, they showed high accuracy rates in their use of *the* (66.14% for overall contexts, 57.52% for the conflicting, and 71.89% for the nonconflicting). As seen in the figure above, when using English articles, the Thai learners could more accurately use *the* than *a* in each context type, especially in the conflicting semantic contexts, in which their accuracy rates in *the* use were rather different from those in *a* use. However, their article accuracy was almost identical in the nonconflicting semantic contexts.

The statistical analysis was performed by using paired t-tests in order to further compare the Thai learners' correct use of *a* to their correct use of *the* in each context category. The results of pair t-

tests on the participants' average scores of correct use of *a* and *the* in each context type are reported in the table 5.2 below.

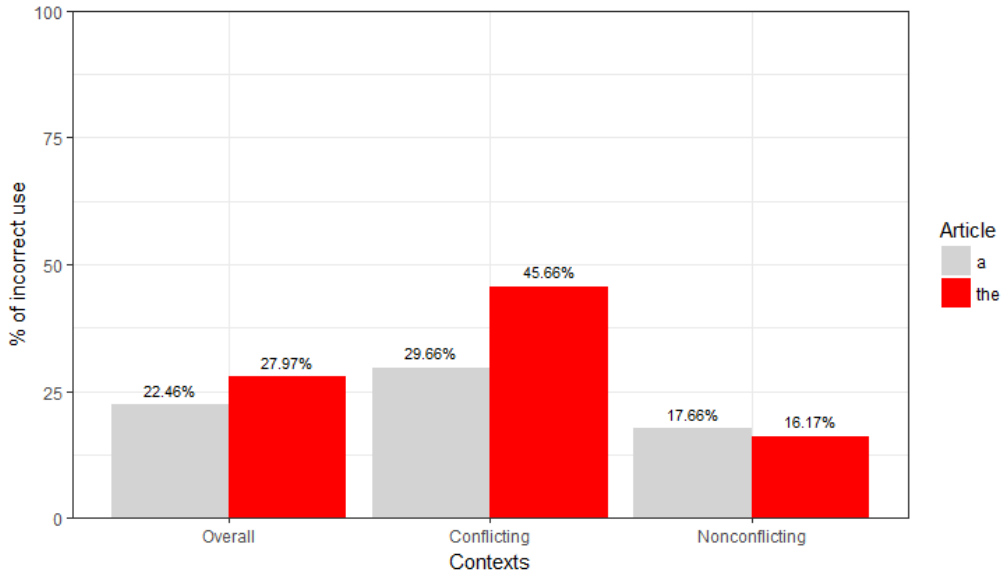
Table 5.2 Thai leaners' and native controls' correct use of *a* vs. *the* in each context type

Articles	**Rates of correct use of *a* vs. correct use of *the***					**Significant difference**
	n	$\bar{X}$	**SD**	***t***	**p-value**	
Thai learners (*n* = 118)						
Overall ('*a*' and '*the*' contexts)						
a (20 items)	118	61.82	14.85	-2.29	0.024	*a* vs. *the*
the (20 items)	118	66.14	14.55			
Conflicting semantic contexts						
a (8 items) [-def, +spec]	118	47.14	25.39	-3.54	0.001	*a* vs. *the*
the (8 items) [+def, -spec]	118	57.52	24.03			
Nonconflicting semantic contexts						
a (12 items) [-def, -spec]	118	71.61	18.01	-0.14	0.887	-
the (12 items) [+def, +spec]	118	71.89	17.22			
Native controls (*n* = 10)						
Overall ('*a*' and '*the*' contexts)						
a (20 items)	10	99.50	1.58	1.77	0.111	-
the (20 items)	10	96.50	4.74			
Conflicting semantic contexts						
a (8 items) [-def, +spec]	10	98.75	3.95	1.00	0.343	-
the (8 items) [+def, -spec]	10	96.25	6.04			
Nonconflicting semantic contexts						
a (12 items) [-def, -spec]	10	100.00	0.00	1.81	0.104	-
the (12 items) [+def, +spec]	10	96.67	5.83			

The results of paired t-tests on the correct article use in the table 5.2 show that the Thai L2 learners' accuracy rates in their article use between *a* and *the* differed significantly in overall and conflicting semantic contexts ($p < 0.05$) whereas did not in the nonconflicting semantic contexts ($p > 0.05$). Although no statistically significant difference between such an article use was found in the nonconflicting semantic contexts, the learners showed more accuracy in their use of *the* than *a.* Importantly, in overall and conflicting semantic contexts, their average percentages of correct use of *the* were significantly higher than those of *a.* Hence, it can be assumed from these results that the Thai learners experienced more article difficulty in their use of L2 English indefinite articles (*a*) than definite articles (*the*) since they had relatively higher accuracy rates in their use of *the* than *a.* This can, then, supports the prediction in this study that Thai learners of L2 English will more correctly employ 'the' in [+definite] contexts than 'a' in [-definite] contexts.

The figure 5.2 illustrates the results on error rates in English article use in each context type by 118 Thai learners in percentages. It gives their article error rates of *a* misuse vs. *the* misuse in overall contexts: [+definite] for *a* and [-definite] for *the*, in the conflicting semantic contexts: [+definite, -specific] for *a* and [-definite, +specific] for *the*, and in the nonconflicting semantic contexts: [+definite, +specific] for *a* and [-definite, -specific] for *the*, respectively.

Figure 5.2 Thai leaners' *a* misuse vs. *the* misuse in each context type



As shown in the figure above, when using English articles, the Thai participants misused *a* at 22.46% for overall contexts, 29.66% for the conflicting semantic contexts and 17.66% for the nonconflicting semantic contexts. In their use of *the*, they committed *the* misuse in those different context types at 27.97%, 45.66%, and 16.17%, respectively. In the overall and conflicting semantic contexts, the learners had higher error rates of *the* misuse when comparing with *a* misuse. Moreover, in the nonconflicting semantic contexts, their error rates in the use of *a* and *the* were

rarely different. They, therefore, tended to make errors of *the* overuse at a higher percentage than they committed *a* overuse.

In order to further compare the Thai learners' incorrect use of *a* to their incorrect use of *the* in each context category, the statistical tests were performed by using paired t-tests. The results of the statistical analysis on the Thai participants' average scores of misuse of *a* and misuse of *the* in each context type are given in the table 5.3.

Table 5.3 Thai learners' misuse of *a* vs. *the* in each context type

Articles	**Article misuse rates**					**Significant difference**
	n	$\bar{X}$	**SD**	***t***	**p-value**	
Overall (*a* and *the* contexts)						
a misuse *(*a)* (20 items)	118	22.46	12.82	-3.38	0.001	**a* vs. **the*
the misuse *(*the)* (20 items)	118	27.97	13.13			
Conflicting semantic contexts						
a misuse *(*a)* (8 items) [+def, -spec]	118	29.66	24.17	-5.69	< 0.001	**a* vs. **the*
the misuse *(*the)* (8 items) [-def, +spec]	118	45.66	26.22			
Nonconflicting semantic contexts						
a misuse *(*a)* (12 items) [+def, +spec]	118	17.66	13.96	0.93	0.355	-
the misuse *(*the)* (12 items) [-def, -spec]	118	16.17	13.27			

In the table 5.3, the results of paired t-tests on the participants' average percentages of *a* misuse and *the* misuse reveal that there was statistically significant difference between their misuse of *a* and *the* in overall and conflicting semantic contexts ($p < 0.05$) while no such a difference in nonconflicting semantic contexts ($p > 0.05$). In the contexts that the difference as such was found, the Thai learners' average percentages of *the* overuse were significantly higher than those of *a* overuse; that is, they made more errors of *the* overuse than *a* overuse. Taking these findings, along with those reported in the table 5.2 on the learners' correct use of *a* vs. *the* into account, it can be assumed that the Thai learners exhibited an article preference in their English article use, especially in conflicting semantic contexts. More specifically, they tended to significantly prefer *the* to *a* in their use of English articles in conflicting contexts. This is because as can be seen from the results, the learners more frequently used *the* than *a* in that they demonstrated a higher

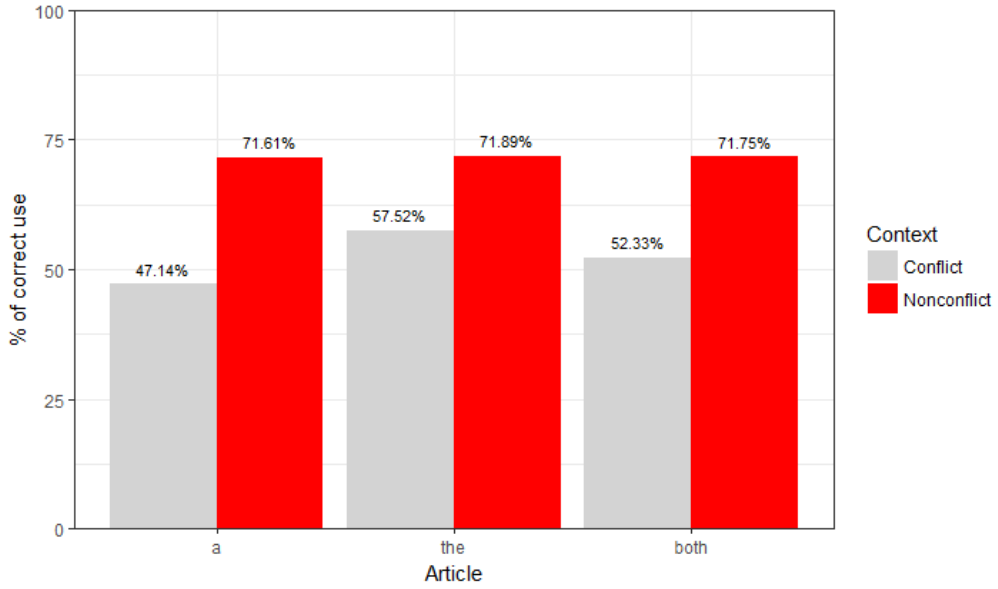
degree of correct use of *the* and, at the same time, misuse of *the* when comparing with *a* correct use and misuse rates. Such a greater correct use and overuse of *the* than *a*, found in the Thai learners' English article use, can reflect their preference for *the* when using English articles and, thus, provide some evidence that supports the prediction in the current study that Thai L2 learners will have an article preference (i.e., prefer *the* to *a*) in their English article choice.

The table 5.4 summarizes the scores of the Thai learners' correct use and misuse of L2 English articles in conflicting and nonconflicting semantic contexts in percentages. In the figure 5.3, the learners' accuracy rates in English article use between conflicting vs. nonconflicting semantic contexts are given.

Table 5.4 Thai L2 learners' correct use and misuse of English articles in conflicting and nonconflicting semantic contexts

Contexts	**Article use rates**	
	Correct use	**Misuse**
a		
[-def, +spec] (8 items)	445 (47.14%)	280 (29.66%)
[-def, -spec] (12 items)	1,014 (71.61%)	250 (17.66%)
the		
[+def, -spec] (8 items)	543 (57.52%)	431 (45.66%)
[+def, +spec] (12 items)	1,018 (71.89%)	229 (16.17%)
a and *the*		
[-def, +spec] & [+def, -spec] (16 items)	988 (52.33%)	711 (37.66%)
[-def, -spec] & [+def, +spec] (24 items)	2,032 (71.75%)	479 (16.91%)

Figure 5.3 Thai L2 learners' correct use of English articles between conflicting vs. nonconflicting



From the table 5.4 and the figure 5.3, it was found that in the conflicting semantic contexts, the Thai learners could accurately use *a* (47.14%), *the* (57.52%), or both of them (52.33%) at a relatively lower level when comparing with their correct English article use in the nonconflicting semantic contexts. In the nonconflicting, they showed accuracy in their use of *a* at 71.61%, *the* at 71.89%, or both of them at 71.75%. As can be seen, when using English articles, the Thai learners could correctly use *a* and *the* in the nonconflicting semantic contexts at a higher percentage than in the conflicting ones.

In order to further compare correct article use by the Thai learners in the conflicting vs. nonconflicting semantic contexts, the statistical analysis was performed by using paired t-tests. The results of paired t-tests on the participants' average scores of article accuracy rates in the conflicting and nonconflicting semantic contexts are provided in the table 5.5.

Table 5.5 Thai L2 learners' correct use of English articles between conflicting vs. nonconflicting semantic contexts

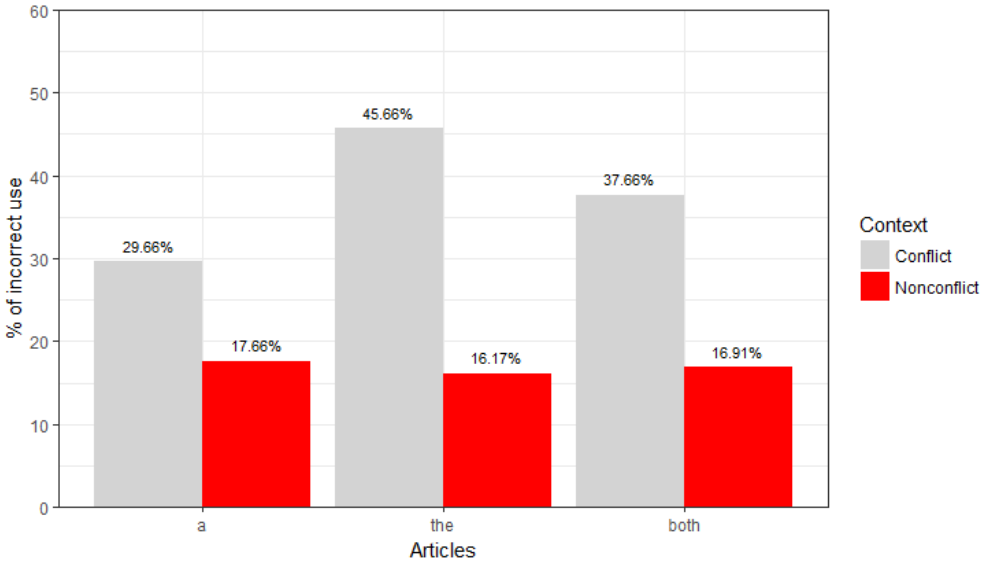
Contexts	Correct article use rates					
	n	$\overline{X}$	**SD**	***t***	**p-value**	**Significant difference**
Correct use of *a*						
[-def,+spec] *(CON)* (8 items)	118	47.14	25.39	-8.55	< 0.001	*CON* vs. *NCON*
[-def,-spec] *(NCON)* (12 items)	118	71.61	18.01			
Correct use of *the*						
[+def, -spec] *(CON)* (8 items)	118	57.52	24.03	-5.45	< 0.001	*CON* vs. *NCON*
[+def, +spec] *(NCON)* (12 items)	118	71.89	17.22			
Correct use of English articles (*a* and *the*)						
[-def, +spec] & [+def, -spec] *(CON)* (16 items)	118	52.33	18.90	-8.50	< 0.001	*CON* vs. *NCON*
[-def, -spec] & [+def, +spec] *(NCON)* (24 items)	118	71.75	13.91			

The results of paired t-tests on the participants' average percentages of correct article use in the table 5.5 show that the Thai learners' accuracy rates in *a* use between the conflicting and nonconflicting semantic contexts: [-definite, +specific] vs. [-definite, -specific] differed significantly ($p < 0.05$). Similarly, their correct use of *the* in the conflicting semantic contexts: [+definite, -specific] were significantly different from those in the nonconflicting: [+definite, +specific] ($p < 0.05$). Overall, it was found that there was statistically significant difference between correct use of English articles (*a* and *the*) in the conflicting semantic contexts and in the nonconflicting ($p < 0.05$). That is, the results reveal that their average percentages of correct use of English articles (*a* and/or *the*) in the nonconflicting semantic contexts were significantly higher than those in the conflicting. From these findings, it can be said that when using L2 English articles, the Thai learners tended to have less article difficulty in the context types where the semantic features of definiteness and specificity are not in conflict as they correctly use *a* and *the* in the nonconflicting semantic contexts at a considerably higher level than in the conflicting contexts. Therefore, these results can be some evidence that provide support for the FH and the predictions for article choice by L2 English learners, proposed by Ionin (2003) and Ionin et al. (2004), especially in terms of high accuracy in *a* and *the* use by L2 English learners in the nonconflicting semantic contexts. According to Ionin and Ionin et al., among four semantic context types: [+definite, -specific], [-

definite, +specific], [+definite, +specific], and [-definite, -specific], in the nonconflicting semantic contexts, L2 learners are predicted to correctly use *a* in [-definite, -specific] contexts and *the* in [+definite, +specific] but to produce article errors of *a* overuse and *the* overuse in the conflicting contexts: [+definite, -specific] for the former and [-definite, +specific] for the latter.

The figure 5.4 provides the results on misuse of L2 English articles between different semantic contexts by 118 Thai learners in percentages. It shows their article error rates of *a* misuse, *the* misuse, and overall English article misuse between conflicting vs. nonconflicting semantic contexts, respectively.

Figure 5.4 Thai L2 learners' misuse of English articles between conflicting vs. nonconflicting semantic contexts



It was found in the table 5.4 and the figure 5.4 that in the conflicting semantic contexts, the Thai participants committed errors of article misuse at 29.66% for *a* misuse, 45.66% for *the* misuse, and 37.66% for overall English article misuse. As for their article misuse in the nonconflicting contexts, they made errors of *a* misuse at 17.66%, *the* misuse at 16.17%, and misuse of both *a* and *the* at 16.91%. As seen in the figure above, the participants showed more error rates of *a* misuse, *the* misuse, and overall English article misuse in the conflicting contexts than nonconflicting. In other words, when comparing with their English article misuse in the nonconflicting contexts, the Thai learners appeared to produce such an error in the conflicting contexts at a considerably higher percentage.

The statistical analysis was performed by using paired t-tests in order to further compare English article misuse by the Thai learners in the conflicting vs. nonconflicting semantic contexts. The results of paired t-tests on the English L2 learners' average scores of article misuse rates in the different semantic contexts are reported in the table 5.6.

Table 5.6 Thai L2 learners' English article misuse between conflicting vs. nonconflicting semantic contexts

Contexts	Article misuse rates					
	n	$\overline{X}$	**SD**	***t***	**p-value**	**Significant difference**
Misuse of *a*						
[+def,-spec] *(CON)* (8 items)	118	29.66	24.17	4.68	< 0.001	*CON* vs. *NCON*
[+def,+spec] *(NCON)* (12 items)	118	17.66	13.96			
Misuse of *the*						
[-def,+spec] *(CON)* (8 items)	118	45.66	26.22	10.87	< 0.001	*CON* vs. *NCON*
[-def,-spec] *(NCON)* (12 items)	118	16.17	13.27			
Misuse of English articles (*a* and *the*)						
[-def, +spec] & [+def, -spec] *(CON)* (16 items)	118	37.66	20.07	9.42	< 0.001	*CON* vs. *NCON*
[-def, -spec] & [+def, +spec] *(NCON)* (24 items)	118	16.91	10.50			

In the table 5.6, it was found that error rates in *a* misuse between the conflicting: [+definite, -specific] and nonconflicting: [+definite, +specific] semantic contexts by the Thai learners differed significantly ($p < 0.05$). Likewise, their *the* misuse rates in the conflicting semantic contexts: [-definite, +specific] were significantly different from those in the nonconflicting: [-definite, -specific] ($p < 0.05$). For overall English article misuse committed by the Thai learners, it was found that there was statistically significant difference between English article (*a* and *the*) misuse rates in the conflicting semantic contexts and those in the nonconflicting ($p < 0.05$). That is, the results indicate that the learners' average percentages of English article misuse in the conflicting semantic contexts were significantly higher than those in the nonconflicting. Hence, it can be assumed from these results that the Thai learners experienced more difficulty in their use of specific indefinite and nonspecific definite English articles than nonspecific indefinites and specific definites since they misused *a* and *the* in the conflicting semantic contexts to a considerably higher degree than in the nonconflicting. This is consistent with the results for the Thai learners' accuracy in *a* and *the* use, found that they had such an accuracy in the nonconflicting semantic contexts at a significantly greater rate than in the conflicting, that is, more article difficulty in the conflicting contexts. Consequently, these results can supports the prediction in this study that

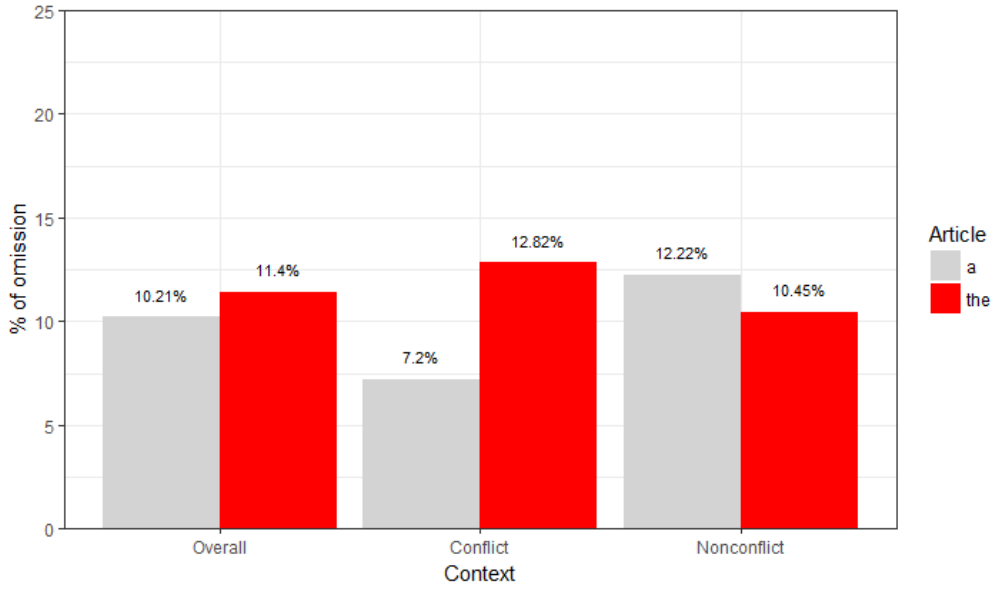
Thai learners will have more L2 English article difficulty in the conflicting semantic contexts of articles than in the nonconflicting by producing more article errors in the former and more article accuracy in the latter. Moreover, this can provide support for the proposals by Ionin (2003) and Ionin et al. (2004) that L2 English learners with article-less L1s are predicted to show high correct English article use in the nonconflicting semantic contexts: [+definite, +specific] and [-definite, -specific], but high English article misuse in the conflicting: [+definite, -specific] and [-definite, +specific].

The table 5.7 summarizes English article use rates, including *a*, *the*, and *null* use rates, in each context type for 118 Thai learners of L2 English in percentages. For the figure 5.5, it shows the learners' omission rates of *a* vs. their omission rates of *the* in each of the different contexts, that is, in overall contexts (i.e., *a* and *the* contexts), in the conflicting semantic contexts, and in the nonconflicting semantic contexts, respectively. Concerning the results for their use rates of *a* and *the*, including *a* vs. *the* correct use and misuse rates in each context type, they were provided and discussed in the earlier figures (the figure 5.1 and 5.2).

Table 5.7 Thai L2 learners' English article use rates in each context type

Contexts	**Article use rates**			**Total**
	a	***the***	***null***	
Overall (*'a'* contexts and *'the'* contexts)				
'a' (20 items)	1,459 (61.82%)	660 (27.97%)	241 (10.21%)	2,360 (100%)
'the' (20 items)	530 (22.46%)	1,561 (66.14%)	269 (11.40%)	2,360 (100%)
Conflicting semantic contexts				
[-def, +spec] (8 items)	445 (47.14%)	431 (45.66%)	68 (7.20%)	944 (100%)
[+def, -spec] (8 items)	280 (29.66%)	543 (57.52%)	121 (12.82%)	944 (100%)
Nonconflicting sematic contexts				
[-def, -spec] (12 items)	1,014 (71.61%)	229 (16.17%)	173 (12.22%)	1,416 (100%)
[+def, +spec] (12 items)	250 (17.66%)	1,018 (71.89%)	148 (10.45%)	1,416 (100%)

Figure 5.5 Thai L2 learners' English article omission errors in each context type



In the table 5.7 and the figure 5.5, the results on the Thai learners' English article omission errors in each context category reveal that they omitted *a* at 10.21% for overall contexts, 7.2% for the conflicting semantic contexts and 12.22% for the nonconflicting contexts. In their omission of *the*, they omitted *the* in those different context types at 11.40%, 12.82%, and 10.45%, respectively. In the overall and conflicting semantic contexts, the learners had more *the* omission than *a* omission. For the nonconflicting contexts, they more frequently omitted *a* than *the.* As is shown by the figure above, only in the conflicting semantic contexts, their *a* and *the* omission rates seemed to be different as an approximately 1% difference was found in their *a* and *the* omission in the other two context types.

In order to further compare the Thai learners' English article omission errors in each context category, the statistical tests were performed by using paired t-tests. The results of the statistical analysis on the Thai participants' average scores of omission of *a* and *the* in each context type are reported in the table 5.8.

Table 5.8 Thai L2 learners' *a* vs. *the* omission rates in each context type

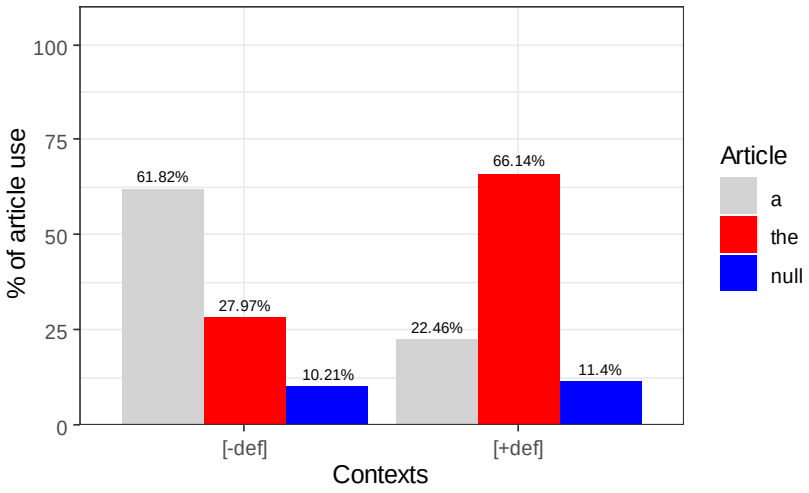
Article omission	Omission rates					Significant difference
	n	$\bar{X}$	**SD**	***t***	**p-value**	
Overall						
a (20 items)	118	10.21	10.45	-1.31	0.194	-
the (20 items)	118	11.40	10.17			
Conflicting semantic contexts						
a (8 items) [-definite, +specific]	118	7.20	11.13	4.76	< 0.001	*a* vs. *the*
the (8 items) [+definite, -specific]	118	12.82	13.22			
Nonconflicting semantic contexts						
a (12 items) [-definite, -specific]	118	12.22	12.89	-1.41	0.161	-
the (12 items) [+definite, +specific]	118	10.45	10.85			

As can be seen from the table 5.8, the results of paired t-tests on the participants' average percentages of *a* and *the* omission reveal that there was a statistically significant difference between *a* and *the* omission rates only in the conflicting semantic contexts ($p < 0.05$) whereas in the other two context categories, their average percentages of *a* omission were not significantly different from those of *the* omission ($p > 0.05$). From these findings, it seems that, overall, the Thai learners made *a* and *the* omission errors to a similar degree. This possibly resulted from L1 interference. Due to the fact that there is no article system in Thai language, when committing English article omission errors, mostly, they did not demonstrate the different level of their *a* and *the* omission. Even so, the statistical results on their English article omission errors in conflicting context category show that the Thai learners significantly omitted *the* more than *a* in conflicting semantic contexts. The reasons for their higher degree of *the* omission than *a* omission in such contexts may be because this kind of semantic context is likely to be a confusing context type for them, causing them more article difficulty due to a conflict between definiteness and specificity semantic features, when comparing with nonconflicting semantic contexts. More importantly, it is likely that the Thai L2 Learners' article omission behaviour is biased by the complexities of the article usage. That is, whenever they think the target noun phrases (NPs) need no articles, they might prefer to omit *the* possibly as a consequence of the lower level of complexities of *the* usage (i.e., lesser usage conditions) than *a*, for example, to use *a*, the learners need to consider the countability and number of nouns while for *the*, they do not have to do so (Lardiere, 2004). Such greater simple usage of *the* might cause the Thai learners to prefer to use *the* in order to lower

the possibility that they might make article errors when they think the target NPs need an article, leading to a high degree of *the* use and, at the same time, also to prefer to omit *the* when they think no articles are needed for the NPs, giving rise to a high degree of *the* omission.

In relation to English article choice rates, in the figure 5.6, the Thai learners' article choice rates of *a*, *the,* and *null* in [-definite] and [+definite] contexts for 118 learners in percentages are given. Their use rates of *a* vs. *the* vs. *null* in [-definite] and [+definite] contexts (i.e., in *a* and *the* contexts), respectively, are illustrated.

Figure 5.6 Thai L2 learners' use rates of *a*, *the*, and *null* in [-definite] or *a* and [+definite] or *the* contexts



In the figure 5.6, the Thai participants exhibited use rates of *a* at 61.82% for [-definite] contexts and 22.46% for [+definite] contexts and use rates of *the* at 27.97% and 66.14%, respectively. In their use rates of *null*, they made omission of *a* at 10.21% and *the* at 11.40%. As is illustrated by the figure 5.6, in [-definite] contexts, the Thai learners correctly used *a* at the highest rate, compared to their use rates of *the* and *null*. They committed *the* overuse at a higher percentage than they omitted *a* in [-definite] contexts. Similarly, in [+definite] contexts, the learners correctly used *the* at the highest rate, compared to their *a* and *null* use rates. They had a higher percentage of *a* misuse than *the* omission errors in [+definite] contexts. Considering their English article use rates in [-definite] and [+definite] contexts, it seems that overall, the Thai learners demonstrated a good performance on English article use as their accuracy rates in English article use were more than 60% of the time, which was higher than their misuse approximately one half for *a* and one third for *the* and than their English article omission rates approximately one sixths for both *a* and *the*.

The statistical analysis was performed by using analysis of variance (ANOVA) with repeated measures, followed by Bonferroni approach for multiple comparisons, in order to further

compare between the Thai learners' different article choice rates in [-definite] and [+definite] contexts. The results of ANOVA with repeated measures and multiple comparisons on the participants' average scores of the use of *a*, *the*, and *null* in [-definite] and [+definite] contexts are reported in the table 5.9 below.

Table 5.9 Thai L2 learners' use rates of *a* vs. *the* vs. *null* in [-definite] or [+definite] contexts

Article use	**Use rates of *a* vs. *the* vs. *null***					**Significant difference**
	n	$\bar{X}$	**SD**	***F***	**p-value**	
[-definite] ('*a*') contexts (20 items)						
a	118	61.82[a]	14.85	323.32	< 0.001	*a* vs. **the* *a* vs. **null* **the* vs. **null*
**the*	118	27.97[b]	13.13			
**null*	118	10.21[c]	10.45			
[+definite] ('*the*') contexts (20 items)						
**a*	118	22.46[a]	12.82	412.44	< 0.001	**a* vs. *the* **a* vs. **null* *the* vs. **null*
the	118	66.14[b]	14.55			
**null*	118	11.40[c]	10.17			

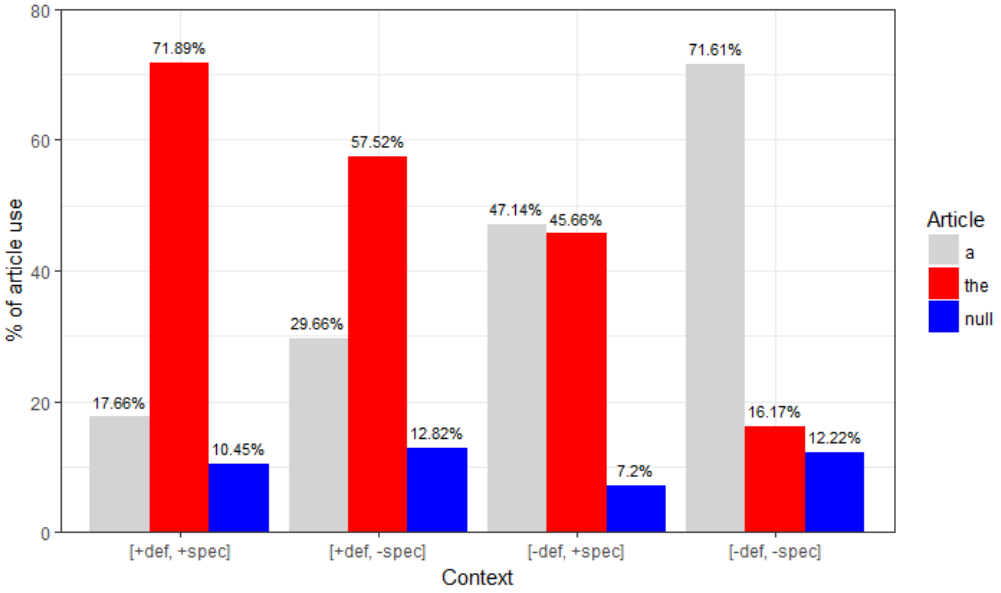
*Note: * denotes article errors*

When comparing between use rates of *a*, *the*, and *null* in [-definite] and [+definite] contexts by using ANOVA with repeated measures and Bonferroni approach, it was found in the table 5.9 that there were statistically significant differences between the participants' use rates of *a*, *the*, and *null* both in [-definite] and [+definite] contexts ($p < 0.05$). More precisely, in [-definite] contexts, the average percentages of their correct *a* use were significantly higher than those of their misuse of *the* and their omission of *a*. It was also found that their average percentages of *the* misuse were significantly higher than those of *a* omission in [-definite] contexts. Regarding their article use rates in [+definite] contexts, the results reveal that the average percentages of their correct *the* use were significantly higher than those of their overuse of *a* and their omission of *the*; their average percentages of *a* misuse were significantly higher than those of *the* omission. As can be seen, overall, the Thai learners appeared to exhibit correct English article use rates at a higher level when comparing with their English article misuse and omission rates. Taking account of their article omission errors, though Thai NPs have no article system, the Thai learners tended to have the concept of English article use in their brain as they showed a significantly higher rate of English article use than English article omission. This can, accordingly, be a way of reflecting the process of their resetting of the Nominal Mapping Parameter (NMP) to the English NMP setting.

For the figure 5.7, article choice rates of *a*, *the,* and *null* in each of the different semantic contexts for 118 Thai learners in percentages are provided. It depicts their use rates of *a* vs. *the* vs. *null* in

each semantic context type: [+definite, +specific], [+definite, -specific], [-definite, +specific], and [-definite, -specific], respectively.

Figure 5.7 English article use rates in each semantic context type by Thai learners



From the figure 5.7 above, when choosing English articles in [+definite] contexts, the Thai learners had use rates of *a* misuse at 17.66%, *the* correct use at 71.89%, and *null* instead of *the* at 10.45% in [+definite, +specific] contexts, and they had use rates of those article use types in [+definite, -specific] contexts at 29.66%, 57.52%, and 12.82%, respectively. For [-definite] contexts, they indicated correct use rates of *a* at 71.61%, *the* misuse rates at 16.17%, and use rates of *null* instead of *a* at 12.22% in [-definite, -specific] contexts and at 47.14%, 45.66%, and 7.2%, respectively, in [-definite, +specific] contexts. As can be seen both in [+definite] and [-definite] contexts, the learners showed article accuracy at a higher rate than article errors, especially in nonconflicting semantic contexts: [-definite, -specific] and [+definite, +specific], in which they could accurately use *a* and *the* more than 70% of the time. These findings seem to be consistent with the prediction in the current study that Thai learners will not have L2 English article difficulty in the nonconflicting semantic contexts.

The statistical tests were performed by using ANOVA with repeated measures and Bonferroni approach for multiple comparisons in order to further compare between the Thai learners' different article choice rates in each semantic context category. The results of the statistical analysis on the learners' average scores of *a*, *the*, and *null* use in each of the different semantic contexts are given in the table 5.10.

Table 5.10 Thai learners' use rates of *a* vs. *the* vs. *null* in each semantic context type

Article use	Use rates of *a* vs. *the* vs. *null*					Significant difference
	n	$\bar{X}$	**SD**	***F***	**p-value**	
[+definite, +specific] contexts (12 items)						
**a*	118	17.66[a]	13.90	437.45	< 0.001	*a* vs. *the* *a* vs. **null* **the* vs. **null*
the	118	71.89[b]	17.22			
**null*	118	10.45[c]	10.85			
[+definite, -specific] contexts (8 items)						
**a*	118	29.66[a]	24.17	90.00	< 0.001	*a* vs. *the* *a* vs. **null* *the* vs. **null*
the	118	57.52[b]	24.03			
**null*	118	12.82[c]	13.22			
[-definite, +specific] contexts (8 items)						
a	118	47.14[a]	25.39	83.08	< 0.001	*a* vs. **null* **the* vs. **null*
**the*	118	45.66[a]	26.22			
**null*	118	7.20[b]	11.13			
[-definite, -specific] contexts (12 items)						
a	118	71.61[a]	18.01	390.64	< 0.001	*a* vs. **the* *a* vs. **null*
**the*	118	16.17[b]	16.17			
**null*	118	12.22[b]	12.22			

*Note: * denotes article errors*

The results of ANOVA with repeated measures and multiple comparisons on the participants' average percentages of English article choice rates in each semantic context type in the table 5.10 reveal that in the contexts targeting *the*, the Thai learners' use rates between *a*, *the*, and *null* differed significantly ($p < 0.05$). In the contexts targeting *a*, the statistically significant differences were found between their use rates of *a*, *the*, and *null* ($p < 0.05$) except between their use rates of *a* and *the* in [-definite, +specific] contexts as well as *the* and *null* in [-definite, -specific] ($p > 0.05$). That is, their average percentages of correct use of *the* were significantly higher than those of misuse of *a* and those of *the* omission in [+definite, +specific] and [+definite, -specific] contexts; in these contexts, the average percentages of their *a* misuse were significantly higher than those of their *the* omission. For [-definite, +specific] contexts, it reveals that the learners' average percentages of *a* correct use and *the* misuse were significantly higher than those of *a* omission. Moreover, it was found in [-definite, -specific] contexts that their average percentages of *a* correct use were significantly higher than those of *the* misuse and *a* omission.

From the result that there was no statistically significant difference between the Thai participants' accuracy rates in *a* use and their error rates of *the* misuse in [-definite, +specific] contexts, it can be interpreted that they appeared to fluctuate between the two settings of the Article Choice

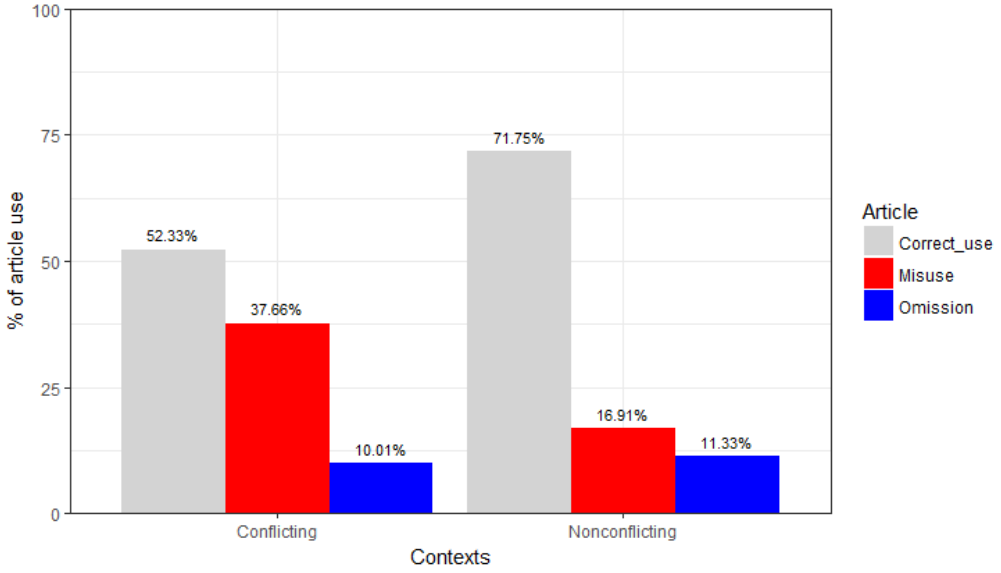
Parameter (ACP) in this semantic context type. That is, sometimes, they adopted the definiteness setting, but sometimes, they adopted the specificity setting and, thus, made a specificity distinction in their English article use, which leaded to substituting *the* for *a* some of the time and accurately using *the* some of the time in [-definite, +specific] contexts. Under the ACP and the Fluctuation Hypothesis (FH) by Ionin (2003) and Ionin et al. (2004), English L2 learners from article-less L1 background are predicted to go through fluctuation stage and produce article substitution errors in [+definite, -specific] and [-definite, +specific] contexts (i.e., *a* misuse in the former and *the* misuse in the latter). Therefore, the result for the Thai learners' fluctuation shown in their English article use in [-definite, +specific] contexts can be some evidence that provides support for Ionin's (2003) and Ionin et al.'s (2004) predictions for English L2 article choice. However, in [+definite, -specific] contexts, the Thai learners did not seem to show such a fluctuation. As can be seen in the statistical results, their correct use rates of *the* were statistically higher than their misuse of *a.* This may be assumed that they showed adopting the definiteness setting to a slightly greater degree than adopting the specificity setting or fluctuating between the two ACP settings. However, it may be partly because of an article preference which they had. It was found that the Thai learners tended to demonstrate an article preference (i.e., preference for *the*) in their English article choice. No fluctuation found in their use of English articles in [+definite, -specific] contexts was possibly as a consequence of such a preference to some extent.

As regards their use rates of *null*, the results indicate that in almost every semantic context, the Thai learners had significantly lower average percentages of English article omission when comparing with their use of *a* and *the*, regardless of whether their article use was correct or not. It can be assumed from these results that the Thai L2 learners of English established the concept relating to English article use in their brain even though there is no article system in their L1. This can then reflect the Thai learners being in the process of resetting of the NMP from the Thai NMP setting, in which NPs have no article system, to the English NMP setting, in which NPs have the article system.

The figure 5.8 summarizes English article choice rates in the conflicting and nonconflicting semantic contexts by Thai learners in percentages. Their choice rates of English article (*a* and *the*) correct use, misuse, and omission in the conflicting or nonconflicting contexts are provided.

Figure 5.8 English article use rates in conflicting and nonconflicting semantic contexts by Thai L2 learners

(n=118)



It is shown in the figure 5.8 that in the conflicting semantic contexts, the Thai participants had accuracy in their *a* and *the* use at 52.33% but misuse of these articles at 37.66% and omission at 10.01%. As for the nonconflicting contexts, the rates of their English article correct use, misuse, and omission were 71.75%, 16.91%, and 11.33%, respectively. From the figure above, it can confirm the result that the Thai learners had less difficulty in using English articles in the nonconflicting semantic contexts as they demonstrated substantially high English article accuracy rates (more than 70%) in the contexts while a relatively low rate of article misuse and omission errors. Nevertheless, in the conflicting contexts, it is shown by the figure that their English article correct use rates were fairly close to their misuse rates. Accordingly, it can be said that they tended to fluctuate between the ACP settings of definiteness and specificity in their use of English articles in the conflicting semantic contexts.

In order to further compare the Thai learners' English article choice rates between different article use types in conflicting and nonconflicting semantic contexts, the statistical analysis was performed by using ANOVA with repeated measures and Bonferroni method for multiple comparisons. The results of the statistical tests on the participants' average scores of correct use, misuse, and omission of English articles (*a* and *the*) in each of the contexts are reported in the table 5.11.

Table 5.11 Thai L2 learners' use rates of English articles between different article use types in conflicting or nonconflicting semantic contexts

Type of article use	English article use rates					Significant difference
	n	$\overline{X}$	**SD**	***F***	**p-value**	
Conflicting semantic contexts (16 items)						
Correct use *(C)*	118	52.33[a]	18.90	125.51	< 0.001	*C vs. M* *C vs. O* *M vs. O*
Misuse (*M*)	118	37.66[b]	20.07			
Omission (*O*)	118	10.01[c]	10.41			
Nonconflicting semantic contexts (24 items)						
Correct use *(C)*	118	71.75[a]	13.91	658.93	< 0.001	*C vs. M* *C vs. O* *M vs. O*
Misuse (*M*)	118	16.91[b]	10.50			
Omission (*O*)	118	11.33[c]	9.77			

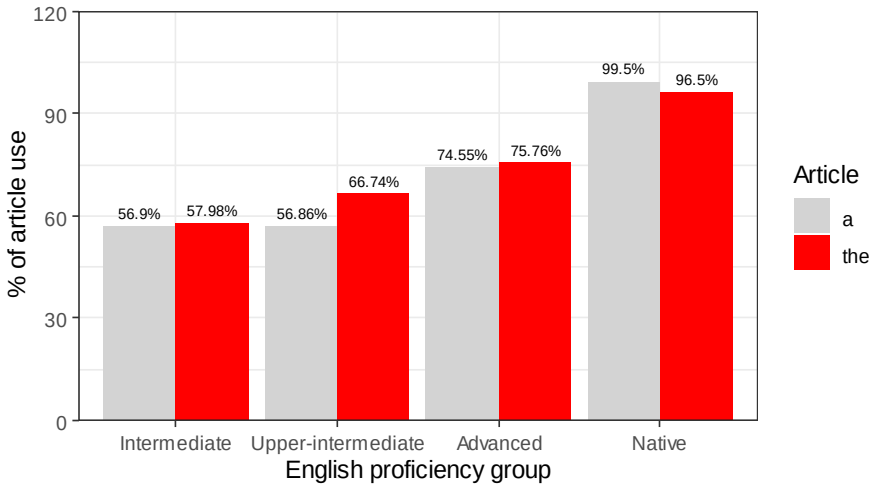
In the table 5.11, it was found that article choice rates between English article accuracy, misuse, and omission, produced by the Thai learners, differed significantly in conflicting as well as nonconflicting semantic contexts ($p < 0.05$). That is, in those two contexts, the learners' average percentages of English article correct use were significantly higher than those of misuse and omission of the articles; between the article errors, a significantly higher rate of English article misuse were found. Hence, no fluctuation in the Thai learners' English article choice in the nonconflicting semantic contexts can be confirmed by these results. In addition, it can be seen from the previous figure (the figure 5.8) that in the conflicting semantic contexts, the learners tended to fluctuate between the two ACP settings in their use of English articles due to the fairly near levels between the rates of their English article correct use and overuse. However, since there was a statistically significant difference between their article accuracy and misuse rates in the conflicting contexts, it is probably said that in their English article choice in this context type, they seemed to fluctuate between the different settings of the ACP, but not at a significantly high level. As previously discussed, part of the reason for this may be a consequence of an article preference which was likely to have some impact on the Thai learners' English article choice. That is, although it seems that in the statistical results, overall, they showed the fluctuation between the definiteness and specificity settings of the ACP in the conflicting semantic contexts at a fairly low level, when looking at the findings in [-definite, +specific] and [+definite, -specific], the fluctuation was markedly shown in their article use in the former, but not in the latter. The result suggesting fluctuation in the Thai learners' English article choice in the conflicting contexts (i.e., [+definite, -specific] contexts) to a low degree might, to a certain extent, be associated with their

preference for *the* in their choice of English articles and, then, the relatively high accuracy rates in their *the* use. The results in the table above can, furthermore, confirm the findings that the Thai learners made use of English articles more than they omitted them, by which their NMP resetting for the English NMP setting was likely to be reflected.

5.2 Results of the Thai L2 learners' English article choice by proficiency level

The Figure 5.9 provides correct use of the indefinite article (*a*) and the definite article (*the*) in English for each proficiency group of the Thai L2 learners in percentages. It shows correct use rates of *a* vs. *the* in each English proficiency level group.

Figure 5.9 Correct use of *a* vs. *the* in each English proficiency level group of Thai learners and in control group



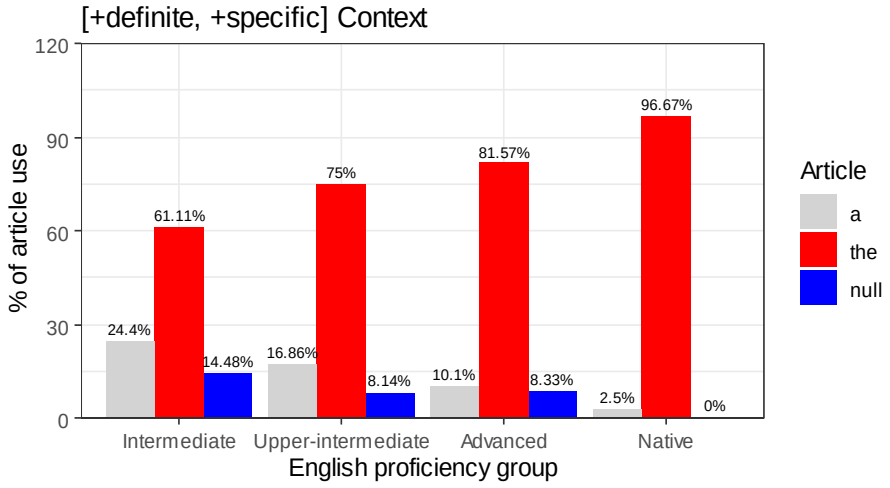
In the figure 5.9, it was found in the experimental group that overall, the intermediate group could more accurately use *the* (57.98%) than *a* (56.9%). The upper-intermediate and advanced groups also more correctly used *the* (66.74%) than *a* (56.86%). Therefore, the results in the figure above indicate that all groups showed a higher percentage of *the* correct use than *a* correct use. However, the results of the statistical analysis, performed by using paired t-tests in order to further compare between correct use of *a* vs. *the* in each proficiency group, reveal that there was statistically significant difference between average percentages of correct use of *a* in indefinite contexts and correct use of *the* in definite contexts only in the upper-intermediate group. That is, the statistical results show that the upper-intermediate learners demonstrated a significantly higher percentage of *the* correct use than *a* correct use while the other two groups did not. For the native controls, they had a higher percentage of *a* correct use (99.5%) than *the* correct use (96.5%), with were not statistical different. These results were given in the table 5.12.

Table 5.12 Each Thai proficiency group's and native controls' correct use of *a* vs. *the*

Articles	Rates of correct use of *a* vs. correct use of *the*					Significant difference
	n	$\overline{X}$	**SD**	***t***	**p-value**	
Intermediate group						
a	42	56.90	11.58	-0.35	0.730	-
the	42	57.98	14.10			
Upper -intermediate group						
a	43	56.86	13.50	-2.97	0.005	*a* vs. *the*
the	43	66.74	12.67			
Advanced group						
a	33	74.55	12.77	-0.38	0.704	-
the	33	75.76	11.19			
Native speakers						
a	10	99.50	1.58	1.77	0.111	-
the	10	96.50	4.74			

In order to compare between different article choice rates in [+definite, +specific] contexts in each proficiency level group of the Thai participants, the statistical tests were performed by using one-way ANOVA with repeated measure, followed by Bonferroni approach for pairwise comparison. The results of the statistical comparisons between average scores of *a*, *the,* and *null* use in [+definite, +specific] contexts by intermediate, upper-intermediate or advanced Thai learners are provided in the table 5.13. The figure 5.10 was produced to give a clear view of the results for their article choice rates of *a* vs. *the* vs. *null* in [+definite, +specific] contexts for each of the different proficiency level groups in percentages.

Figure 5.10 English article choice rates in [+definite, +specific] contexts by each English proficiency level group of the Thai learners



As the figure 5.10 depicts, when choosing English articles in [+definite, +specific] contexts, the intermediate learners showed the highest percentage of *the* correct use (61.11%), compared to their overuse of *a* (24.4%) and their omission of *the* (14.48%). The similar results were indicated in the upper-intermediate and advanced groups. In [+definite, +specific] contexts, the upper-intermediate learners had use rates of *a* misuse at 16.86%%, *the* correct use at 75%, and *null* instead of *the* at 8.14%, and the advanced group at 10.1%, 81.57%, and 8.33%, respectively.

As can be seen in the figure 5.10, every proficiency group demonstrated a higher rate of correct use of *the* than misuse of *a* as well as omission of *the* while they committed more errors of *a* misuse than *the* omission in [+definite, +specific] contexts. This can be asserted by the results of the statistical analysis by performing ANOVA with repeated measures and Bonferroni approach for multiple comparisons in the table 5.13 below.

Table 5.13 Each proficiency level group of the Thai learners' and native controls' use rates of *a* vs. *the* vs. *null* in [+definite, +specific] contexts

Article use	**Use rates of *a* vs. *the* vs. *null***					**Significant difference**
	n	$\overline{X}$	**SD**	***F***	**p-value**	
Intermediate group						
**a*	42	24.40[a]	16.30	66.45	< 0.001	**a* vs. *the* **a* vs. **null* *the* vs. **null*
the	42	61.11[b]	18.00			
**null*	42	14.48[c]	13.15			
Upper-intermediate group						
**a*	43	16.86[a]	11.43	306.82	< 0.001	**a* vs. *the* **a* vs. **null* *the* vs. **null*
the	43	75.00[b]	13.11			
**null*	43	8.14[c]	8.23			
Advanced group						
**a*	33	10.10[a]	9.02	329.67	< 0.001	**a* vs. *the* *the* vs. **null*
the	33	81.57[b]	13.46			
**null*	33	8.33[a]	9.32			
Native group						
**a*	10	2.50[a]	5.62	959.78	< 0.001	**a vs. the* *the vs. *null*
the	10	96.67[b]	5.83			
**null*	10	0.00[a]	0.00			

*Note: * denotes article errors*

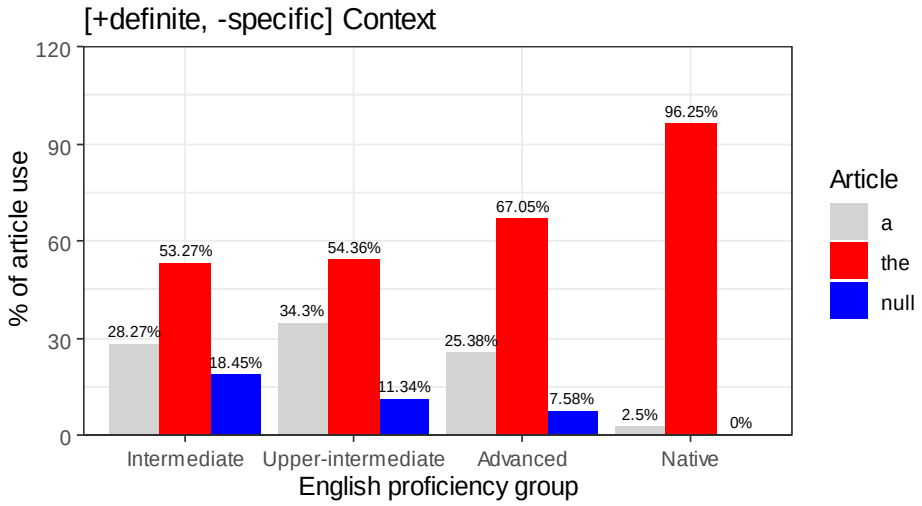
The statistical results show that in every proficiency group, there were statistically significant differences between their use rates of *a*, *the*, and *null* in [+definite, +specific] contexts ($p < 0.05$), except between the advanced group's use rates of *a* and *null* ($p > 0.05$). That is, every Thai

proficiency group's average percentages of correct use of *the* were significantly higher than those of misuse of *a* and those of *the* omission in [+definite, +specific] contexts; in these contexts, every proficiency group except the advanced learners exhibited a significantly higher level of *a* misuse than *the* omission. From these results, it can be argued that the Thai learners in each proficiency group showed a significantly higher level of using an English article (i.e., *the* correct use and *a* misuse) than omitting it (i.e., *the* omission), indicating that they had the English article use concept in their brain. It can be interpreted that they were in the process of resetting of the NMP from the Thai setting [+arg,-pred], lacking the article system, to the English setting [+arg,+pred], having the article system.

The results that all three Thai proficiency groups, even the intermediate learners, demonstrated a significantly higher rate of correct use of *the* than misuse of *a* and omission of *the* can suggest that the Thai learners seemed to have not much article difficulty in [+definite, +specific] contexts. Accordingly, this can provide support for the prediction of this study that Thai learners will not have L2 English article difficulty in the nonconflicting semantic contexts and for the predictions of English article choice by L2 learners by Ionin (2003) and Ionin et al. (2004) that English L2 learners from an article-less L1 are predicted to be able to produce correct use of *the* in [+definite, +specific] at a high degree.

For comparing between different article choice rates in [+definite, -specific] contexts in each Thai proficiency group, the statistical tests were performed by using one-way ANOVA with repeated measure and Bonferroni approach for multiple comparisons. The results of the statistical comparisons between average scores of *a*, *the,* and *null* use in [+definite, -specific] contexts in intermediate, upper-intermediate or advanced group are reported in the table 5.17. The figure 5.11 was created to show a clear view of the results for their article choice rates of *a* vs. *the* vs. *null* in [+definite, -specific] contexts for each of the different proficiency level groups in percentages.

Figure 5.11 English article choice rates in [+definite, -specific] contexts by each English proficiency level group of the Thai learners



As shown in the figure 5.11, in [+definite, -specific] contexts, all groups had more use rates of *the* correct use (53.27% for intermediate, 54.36% for upper- intermediate, and 67.05% for advanced) than misuse of *a* (28.27% for intermediate, 34.30% for upper- intermediate, and 25.38% for advanced) as well as omission of *the* (18.45% for intermediate, 11.34% for upper- intermediate, and 7.58% for advanced). All groups showed more misuse of *a* than *the* omission in their English article use with [+definite, -specific] contexts. These results can be supported by the results of the statistical analysis by performing ANOVA with repeated measures and Bonferroni approach for multiple comparisons in the table 5.14 below.

Table 5.14 Each proficiency level group of the Thai learners' and native controls' use rates of *a* vs. *the* vs. *null* in [+definite, -specific] contexts

Article use	Use rates of *a* vs. *the* vs. *null*					Significant difference
	n	$\overline{X}$	**SD**	***F***	**p-value**	
Intermediate group						
**a*	42	28.27[a]	22.10	20.85	< 0.001	**a* vs. *the* *the* vs. **null*
the	42	53.27[b]	23.76			
**null*	42	18.45[a]	15.68			
Upper-intermediate group						
**a*	43	34.30[a]	28.36	25.66	< 0.001	**a* vs. *the* **a* vs. **null* *the* vs. **null*
the	43	54.36[b]	24.98			
**null*	43	11.34[c]	11.18			
Advanced group						
**a*	33	25.38[a]	20.13	66.11	< 0.001	**a* vs. *the* **a* vs. **null* *the* vs. **null*
the	33	67.05[b]	20.92			
**null*	33	7.58[c]	9.34			
Native controls						
**a*	10	2.50[a]	5.27	1019.8	< 0.001	**a vs. the* *the vs. *null*
the	10	96.25[b]	6.04			
**null*	10	0.00[a]	0.00			

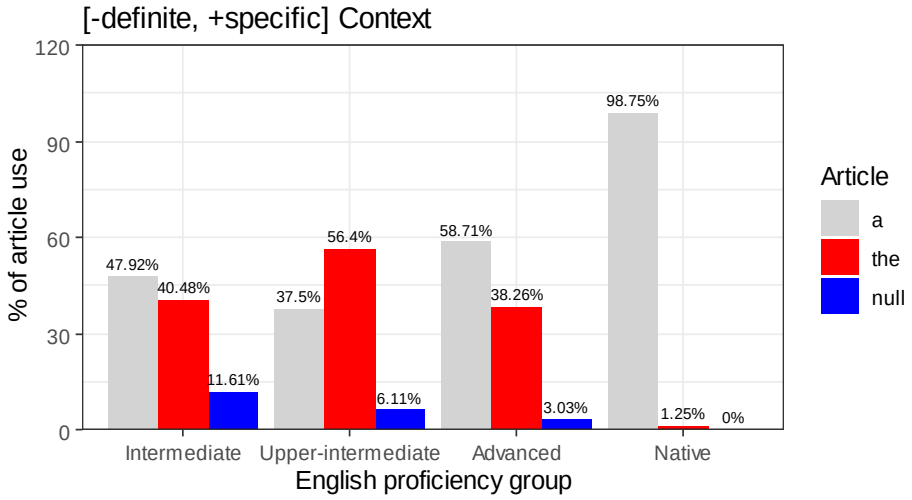
*Note: * denotes article errors*

The results of the statistical analysis in the table 5.14 reveal that there were statistically significant differences between their use rates of *a*, *the*, and *null* in [+definite, -specific] contexts ($p < 0.05$) in all three groups. The learners in these groups indicated average percentages of correct use of *the* were significantly higher than those of misuse of *a* and those of *the* omission in [+definite, -specific] contexts. The results suggest that every Thai proficiency group seemed to slightly fluctuate between the two settings of the ACP; they showed a significantly high level of *the* correct use. Although their article use patterns in this conflicting context type were not somewhat in line with the predictions of the FH, as seen in the results on [+definite, -specific] and [+definite, +specific] contexts, the Thai learners produced more English article misuse rates in [+definite, -specific] contexts than [+definite, +specific] contexts. This shows that they still wrongly chose the specificity setting in their English article choice in [+definite, -specific] contexts. They, thus, still showed fluctuation; they showed the definiteness as well as the specificity article use patterns. Moreover, in the table 5.14, it was found that every proficiency group except intermediate showed a significantly higher level of *a* misuse than *the* omission. The results indicate that each

Thai proficiency group demonstrated a significantly higher rate of the English article use (*the* correct use and *a* misuse) than article omission (*the* omission).

In order to compare between different article choice rates in [-definite, +specific] contexts in each proficiency level group of the Thai participants, the statistical tests were performed by using one-way ANOVA with repeated measure and Bonferroni approach for multiple comparisons. The results of the statistical comparisons between average scores of *a*, *the,* and *null* use in [-definite, +specific] contexts by intermediate, upper-intermediate or advanced Thai learners are shown in the table 5.15. The figure 5.12 was provided for a clear view of the results for their article choice rates of *a* vs. *the* vs. *null* in [-definite, +specific] contexts by each of the different proficiency level groups in percentages.

Figure 5.12 English article choice rates in [-definite, +specific] contexts by each English proficiency level group of the Thai learners



As is illustrated by the figure 5.12, in [-definite, +specific] contexts, the intermediate and advanced learners showed more use rates of *a* correct use (47.92% for intermediate and 58.71% for advanced) than misuse of *the* (40.48% for intermediate and 38.26% for advanced) and than omission of *a* (11.61% for intermediate and 3.03% for advanced). For the upper-intermediate group, they had more *the* misuse (56.40%) than *a* correct use (37.50%) and than *a* omission (6.11%). The results of the statistical analysis by performing ANOVA with repeated measures and Bonferroni approach for multiple comparisons can confirm that the upper-intermediates' average percentages of misuse of *the* were significantly higher than those of *a* correct use in in [-definite, +specific] contexts, indicating the specificity article use patterns. However, for the intermediate and advanced learners, the statistical results reveal that there were not statistically significant differences between their *a* correct use rates and their *the* misuse rates in [-definite, +specific] contexts ($p > 0.05$). This means that these two proficiency groups showed fluctuation between the

definiteness and specificity settings of the ACP in their article use with [-definite, +specific] contexts. These findings were given in the table 5.15 below.

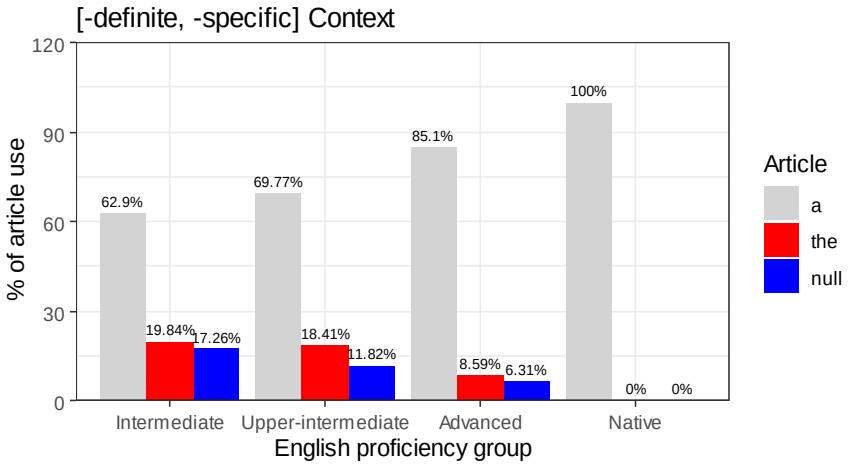
Table 5.15 Each proficiency level group of the Thai learners' and native controls' use rates of *a* vs. *the* vs. *null* in [-definite, +specific] contexts

Article use	**Use rates of *a* vs. *the* vs. *null***					**Significant difference**
	n	$\overline{X}$	**SD**	***F***	**p-value**	
Intermediate group						
a	42	47.92[a]	20.58	23.02	< 0.001	*a* vs. **null* **the* vs. **null*
**the*	42	40.48[a]	25.12			
**null*	42	11.61[b]	14.18			
Upper-intermediate group						
a	43	37.50[a]	24.55	41.73	< 0.001	*a* vs. **the* *a* vs. **null* **the* vs. **null*
**the*	43	56.40[b]	25.35			
**null*	43	6.11[c]	9.20			
Advanced group						
a	33	58.71[a]	25.48	40.17	< 0.001	*a* vs. **null* **the* vs. **null*
**the*	33	38.26[a]	24.79			
**null*	33	3.03[b]	6.27			
Native controls						
a	10	98.75[a]	3.95	2054.1	< 0.001	*a vs. *the* *a vs. **null*
**the*	10	1.25[b]	3.95			
**null*	10	0.00[b]	0.00			

*Note: * denotes article errors*

For comparing between different article choice rates in [-definite, -specific] contexts in each Thai proficiency group, the statistical tests were performed by using one-way ANOVA with repeated measure and Bonferroni approach for pairwise comparison. The results of the statistical comparisons between average scores of *a*, *the,* and *null* use in [-definite, -specific] contexts by each Thai learner group are provided in the table 5.16. The figure 5.13 was produced to give a clear view of the results for their article choice rates of *a* vs. *the* vs. *null* in [-definite, -specific] contexts for each of the different proficiency level groups in percentages.

Figure 5.13 English article choice rates in [-definite, -specific] contexts by each English proficiency level group of the Thai learners



As shown in the figure 5.13, in [-definite, -specific] contexts, all groups had more use rates of *a* correct use (62.9% for intermediate, 69.77% for upper- intermediate, and 85.10% for advanced) than misuse of *the* (19.84% for intermediate, 18.41% for upper- intermediate, and 8.59% for advanced) as well as omission of *the* (17.26% for intermediate, 11.82% for upper- intermediate, and 6.31% for advanced). The results of the statistical analysis by performing ANOVA with repeated measures and Bonferroni approach for multiple comparisons can support that all Thai proficiency groups' average percentages of *a* correct use were significantly higher than those of misuse of *the* in [-definite, -specific] contexts. This suggests that every Thai group had no problems with English articles in [-definite, -specific] contexts, no fluctuation was found in this context type. The statistical results were provided in the table 5.16 below.

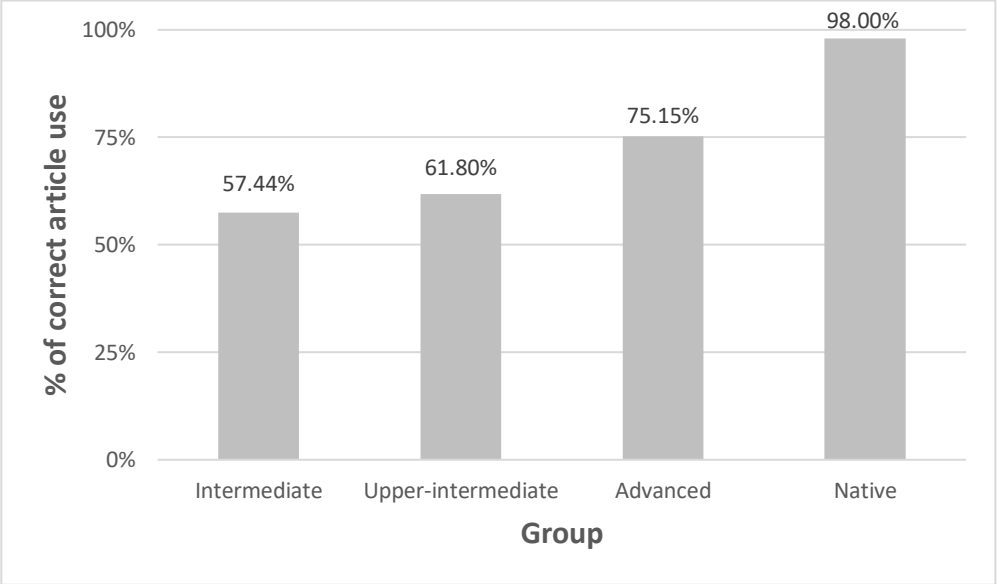
Table 5.16 Each proficiency level group of the Thai learners' and native controls' use rates of a vs. the vs. null in [-definite, -specific] contexts

Article use	Use rates of *a* vs. *the* vs. *null*					Significant difference
	n	$\overline{X}$	**SD**	***F***	**p-value**	
Intermediate group						
a	42	62.90[a]	16.79	82.07	< 0.001	*a* vs. **the* *a* vs. **null*
**the*	42	19.84[b]	13.89			
**null*	42	17.26[b]	14.06			
Upper-intermediate group						
a	43	69.77[a]	14.09	187.21	< 0.001	*a* vs. **the* *a* vs. **null*
**the*	43	18.41[b]	10.53			
**null*	43	11.82[b]	12.36			
Advanced group						
a	33	85.10[a]	11.50	254.28	< 0.001	*a* vs. **the* *a* vs. **null*
**the*	33	8.59[b]	12.92			
**null*	33	6.31[b]	9.09			
Native controls						
a	10	100.00	0.00	-	-	-
**the*	10	0.00	0.00			
**null*	10	0.00	0.00			

*Note: * denotes article errors*

For comparing accuracy rates in the use of English articles (*a* and *the*) between different research participant groups, the statistical tests were performed by using one-way ANOVA with repeated measure and Bonferroni approach for multiple comparisons. The results of the statistical comparisons between average scores of correct article use by Thai intermediate vs. Thai upper-intermediate vs. Thai advanced learners vs. English native speakers are shown in the table 5.17 and table 5.18. The figure 5.14 was created to give a clear view of the results for their correct article choice rates between different groups in percentages.

Figure 5.14 Correct English article (*a* and *the*) use between different participant groups



The results in the figure 5.14 reveal that the native English group demonstrated the highest percentage of correct English article use (98%). Between the Thai different groups, the advanced group could accurately use English article to a higher degree than the upper-intermediate and intermediate groups while the upper-intermediates showed more correct use of English articles than the intermediates. As can be seen from the results, their accuracy in using English articles increased when their English proficiency improved.

To further compare correct English article (a and the) use between different participant groups, the statistical tests were performed by using ANOVA with repeated measures and Bonferroni approach for multiple comparisons. The results were reported in the table 5.17 and table 5.18.

Table 5.17 Correct English article (*a* and *the*) use between different participant groups

Group	Correct use of English articles (*a* and *the*)					Significant difference
	n	$\overline{X}$	***SD***	**F**	**p-value**	
Correct article use						
Thai intermediate learners (Int)	42	57.44[a]	8.14	100.09	< 0.001	Int vs. Upp Int vs. Adv Int vs. NS Upp vs. Adv Upp vs. NS Adv vs. NS
Thai upper-intermediate learners (Upp)	43	61.80[b]	7.22			
Thai advanced learners (Adv)	33	75.15[c]	7.85			
Native speakers (NS)	10	98.00[d]	2.30			

Table 5.18 Correct English article (*a* and *the*) use in each semantic context between different participant groups

Group	Correct use of English articles (*a* and *the*)					Significant difference
	n	$\overline{X}$	**SD**	***F***	**p-value**	
[+definite, +specific]						
Intermediate (Int)	42	61.11[a]	18.00	21.81	< 0.001	Int vs. Upp Int vs. Adv Int vs. NS Upp vs. NS Adv vs. NS
Upper-intermediate (Upp)	43	75.00[b]	13.11			
Advanced (Adv)	33	81.57[bc]	13.46			
Native speakers (NS)	10	96.67[d]	5.83			
[+definite, -specific]						
Intermediate (Int)	42	53.27[a]	23.76	11.69	< 0.001	Int vs. NS Upp vs. NS Adv vs. NS
Upper-intermediate (Upp)	43	54.36[a]	24.98			
Advanced (Adv)	33	67.05[a]	20.92			
Native speakers (NS)	10	96.25[b]	6.04			
[-definite, +specific]						
Intermediate (Int)	42	47.92[ab]	22.58	20.31	< 0.001	Int vs. NS Upp vs. Adv Upp vs. NS Adv vs. NS
Upper-intermediate (Upp)	43	37.50[a]	24.55			
Advanced (Adv)	33	58.71[b]	25.48			
Native speakers (NS)	10	98.75[c]	3.95			
[-definite, -specific]						
Intermediate (Int)	42	62.90[a]	16.79	24.23	< 0.001	Int vs. Adv Int vs. NS Upp vs. Adv Upp vs. NS Adv vs. NS
Upper-intermediate (Upp)	43	69.77[a]	14.09			
Advanced (Adv)	33	85.10[b]	16.50			
Native speakers (NS)	10	100.00[c]	0.00			

The results of ANOVA with repeated measures multiple comparisons can assert that there were statistically significant differences in their *a* and *the* correct use rates between different groups. The average percentages of article accuracy in the groups with greater proficiency levels were significantly higher than those in the lower proficiency groups, particularly in nonconflicting contexts. This indicates the effect of proficiency. For conflicting semantic contexts, there were not

statistically significant differences in their *a* and *the* correct use rates between different groups, especially in [+definite, -specific]. In [-definite, +specific], the significant differences in their article accuracy were found only between the upper-intermediate learners and advanced. From the findings, it can be interpreted that the impact of the difference in proficiency on their development of the article system was indicated particularly in the Thai learners' article use in the contexts with no conflict between definiteness and specificity semantic features, and that the UG access (the features of definiteness and specificity) seemed to have more impact on their article use in conflicting semantic contexts than the difference in proficiency. When comparing between each proficiency group of the Thai learners and the native controls, the results in overall contexts as well as in each semantic context type reveal that every proficiency group's *a* and *the* accuracy rates were statistically lower than those of the native controls. As a result, it can be interpreted that all Thai proficiency groups did not still succeed in acquiring English article system, that is, could not set to the ACP setting appropriate for English since all proficiency groups' performance in English article use in every contexts type was not consistent with that of the English native controls.

Chapter 6: Results of the Production Task (PT)

This chapter describes the results of the production task (PT), used to complement the FCE task. The data from this task were analysed mainly to address the research questions related to English article use by the Thai L2 learners of English ("Will Thai learners' errors in the use of English articles have predictable pattern?", "Do Thai learners of English fluctuate between the definiteness setting and the specificity setting of the Article Choice Parameter in their article use?", "Is there a difference between accuracy in the Thai learners' article use in definite ('the') and indefinite ('a') contexts?", and "Do Thai learners have an article preference in their choice of L2 English articles?").

The participants who were asked to complete the PT were 42 intermediate, 43 upper-intermediate, and 33 advanced adult Thai learners of L2 English (the experimental group) and 10 adult native English speakers (the control group). At the time of data collection, the Thai learners, all of whom were studying in a Thai university, lived in Thailand, and the native speakers of English lived in the UK. In this chapter, the results in relation to the Thai participants' performance on the PT are mainly reported. The PT results reported are obtained from nine test items targeting the indefinite article (*a*) and twenty-six test items targeting the definite article (*the*). In taking the PT, the task takers were instructed to retell the story "Loch Ness", to which they had listened before taking the retelling task, by including the word prompts given in square brackets [ ] in PT task items to produce the English sentences of their story retelling.

The data on the PT were calculated and scored on the basis of the participants' English article choice rates (i.e., their use rates of *a*, *the*, and *null*), including correct use, misuse, and omission of *a* and *the*. Prior to any further statistical analysis, a normal distribution test was conducted. It was found that the data on their article choice rates were approximately normally distributed. Parametric statistical tests were thus applied for the statistical analyses of the PT, in which the average scores of their English article accuracy and/or errors were compared.

6.1 Overall results for the Thai L2 learners' performance on the production task (PT)

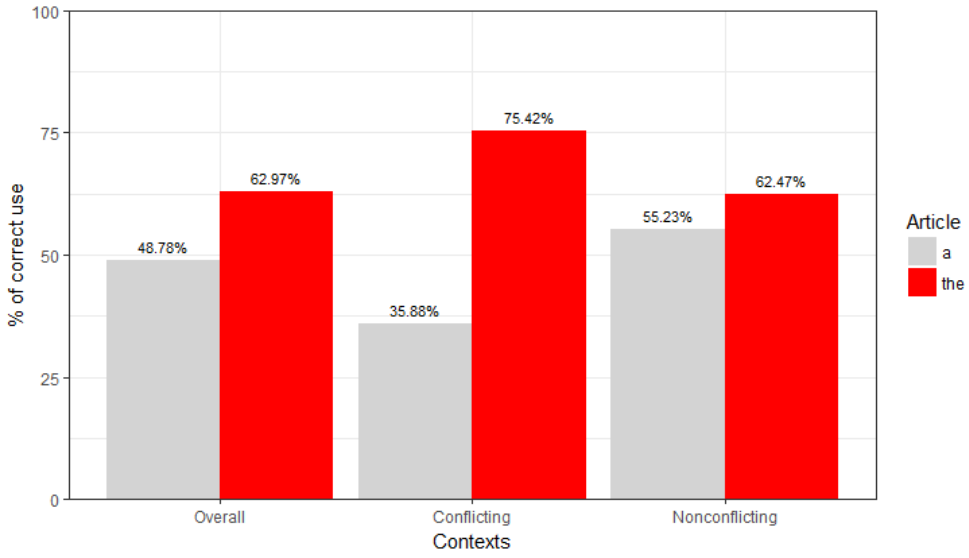
The table 6.1 summarizes the Thai learners' scores of correct use and misuse of *a* and *the* in each of the different contexts for 118 learners in percentages. In the figure 6.1, their correct use rates of *a* vs. *the* in each kind of contexts: overall contexts (*a* and *the* contexts), the conflicting semantic contexts (specific indefinite contexts for *a* and nonspecific definite contexts for *the*), and the

nonconflicting semantic contexts (nonspecific indefinite contexts for *a* and specific definite contexts for *the*) are depicted.

Table 6.1 Overall scores of correct use and misuse of *a* and *the* by the Thai learners

Articles	**Article use rates**	
	Correct use	**Misuse**
Overall (‘*a*’ and ‘*the*’ contexts)		
a	518/1,062 (48.78%)	391/3,068 (12.74%)
the	1,932/3,068 (62.97%)	328/1,062 (30.89%)
Conflicting semantic contexts		
a	127/354 (35.88%)	26/118 (22.03%)
the	89/118 (75.42%)	179/354 (50.57%)
Nonconflicting sematic contexts		
a	391/708 (55.23%)	365/2,950 (12.37%)
the	1,843/2,950 (62.47%)	149/708 (21.05%)

Figure 6.1 Thai leaners’ correct use of a vs. the in each context type



It was found in the table 6.1 and the figure 6.1 that the Thai participants could accurately use *a* in overall contexts at 48.78%, in the conflicting semantic contexts at 35.88%, and in the nonconflicting at 55.23%. For their accuracy in *the* use across those context types, they could correctly use it at 62.97%, 75.42%, and 62.47%, respectively. From the figure, it is clear that the learners showed higher accuracy rates in their use of *the* than *a* in every type of the contexts. In particular, in the conflicting contexts, they could correctly use *the* at twice the rate of their correct use of *a*. These results were consistent with those found in their performance on the FCE task.

Moreover, it can be noted that the learners were better with *the* in conflicting contexts rather than nonconflicting. Considering the test items in the PT, the number of task items testing the learners' article use in conflicting contexts (i.e., [+definite, -specific] contexts) was quite different from those testing their article use in nonconflicting (i.e., [+definite, +specific] contexts). This difference was, perhaps, as a consequence of why the learners' results on the use of *the* (better or worse performance with *the*) between conflicting and nonconflicting contexts were quite different.

In order to further compare the Thai participants' accuracy rates in their use of *a* with *the* in each context type, the statistical tests were performed by using paired t-tests. The results of the statistical analysis on the participants' average scores of *a* correct use and *the* correct use in each context category are shown in the table 6.2.

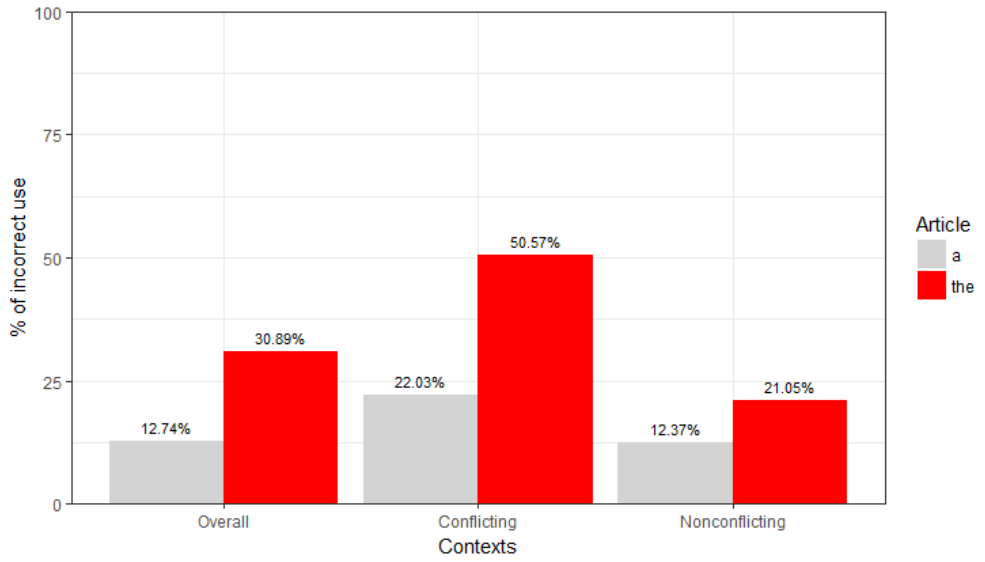
Table 6.2 Thai leaners' correct use of *a* vs. *the* in each context type

Articles	**Rates of correct use of *a* vs. correct use of *the***					**Significant difference**
	n	$\overline{X}$	**SD**	***t***	**p-value**	
Overall ('*a*' and '*the*' contexts)						
a	118	48.78	20.55	-5.53	< 0.001	*a* vs. *the*
the	118	62.97	20.45			
Conflicting semantic contexts						
a [-def, +spec]	118	35.88	30.24	-7.56	< 0.001	*a* vs. *the*
the [+def, -spec]	118	75.42	43.24			
Nonconflicting semantic contexts						
a [-def, -spec]	118	55.23	21.87	-2.93	0.004	*a* vs. *the*
the [+def, +spec]	118	62.47	21.06			

From the table 6.2, the results of paired t-tests on the participants' average percentages of correct use of *a* and *the* show that there were statistically significant differences between their correct use rates of *a* and those of *the* in overall, conflicting, and nonconflicting semantic contexts ($p < 0.05$). In each of those contexts, the Thai learners' average percentages of correct *the* use were significantly higher than those of correct *a* use. These results can, thus, provide evidence that supports the prediction in this study that Thai learners will more correctly employ *the* in [+definite] contexts than *a* in [-definite] contexts. From the results, it can be said that in their English article choice, the Thai learners exhibited more difficulty in the use of *a* than *the*.

The figure 6.2 shows the results on the Thai learners' error rates of *a* and *the* misuse in each context type in percentages. It provides their misuse rates of *a* vs. *the* in overall contexts, in the conflicting semantic contexts (nonspecific definite contexts for *a* and specific indefinite contexts for *the*), and in the nonconflicting contexts (specific definite contexts for *a* and nonspecific indefinite contexts for *the*), respectively.

Figure 6.2 Thai leaners' a misuse vs. the misuse in each context type



The results in the table 6.1 and the figure 6.2 show that when committing an English article misuse, the Thai learners produced *a* misuse at 12.74% for overall contexts, 22.03% for the conflicting semantic contexts, and 12.37% for the nonconflicting contexts. For *the* misuse, they made such an error in each of those context categories at 30.89%, 50.57%, and 21.05%, respectively. It was found in all the contexts, especially overall and conflicting, that they had higher error rates of *the* misuse than *a* misuse. As found in the FCE data, when misusing English articles, the Thai learners showed more errors of *the* misuse than *a* misuse.

The statistical analysis was performed by using paired t-tests to further compare between the Thai learners' different types of English article misuse in each context type. The results of pair t-tests on the learners' average scores of *a* misuse and *the* misuse in each of the various contexts are provided in the table 6.3.

Table 6.3 Thai learners' misuse of *a* vs. *the* in each context type

Articles	Article misuse rates					Significant difference
	n	$\bar{X}$	**SD**	***t***	**p-value**	
Overall (*a* and *the* contexts)						
a misuse *(*a)*	118	12.74	15.69	-7.24	< 0.001	**a* vs. **the*
the misuse *(*the)*	118	30.89	19.50			
Conflicting semantic contexts						
a misuse *(*a)* [+def, -spec]	118	22.03	41.62	-5.30	< 0.001	**a* vs. **the*
the misuse *(*the)* [-def, +spec]	118	50.57	33.11			
Nonconflicting semantic contexts						
a misuse *(*a)* [+def, +spec]	118	12.37	15.97	-3.88	< 0.001	**a* vs. **the*
the misuse *(*the)* [-def, -spec]	118	21.05	17.89			

** denotes an article error*

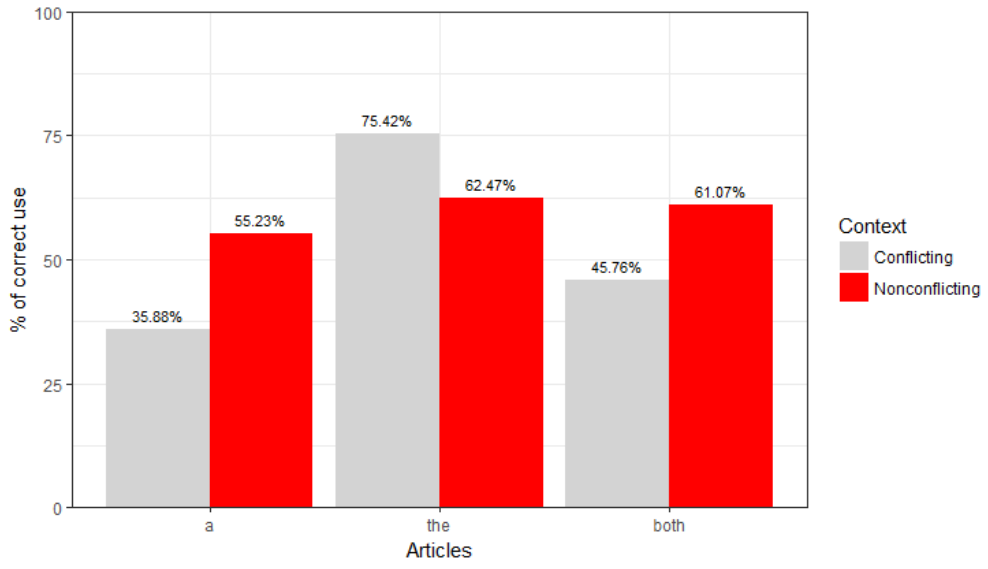
The results of paired t-tests on the participants' average percentages of English article misuse in the table 6.3 reveal that the Thai learners' error rates between *a* misuse and *the* misuse differed significantly when using English articles in overall, conflicting, and nonconflicting semantic contexts ($p < 0.05$). That is, it can be confirmed by the results from the statistical analysis that the learners made error rates of *the* misuse to a significantly greater degree than *a* misuse in various contexts. These findings and the findings that the Thai learners had a higher level of *the* correct use than *a* correct use across different contexts can be interpreted that they showed more use rates of *the* than *a* and, therefore, demonstrated preference for *the* in their English article use. Consequently, the findings can support that the Thai learners had an article preference (i.e., preferring *the* to *a*) in their choice of English articles, as also found in the FCE data analysis and, then, provide support for the prediction in this study.

The table 6.4 reports the scores of correct use and misuse of English articles in conflicting and nonconflicting semantic contexts by 118 Thai L2 learners in percentages. For the figure 6.3, it illustrates their English article accuracy rates between conflicting vs. nonconflicting semantic contexts.

Table 6.4 Thai L2 learners' correct use and misuse of English articles in conflicting and nonconflicting semantic contexts

Contexts	Article use rates	
	Correct use	Misuse
a contexts		
[-def, +spec]	127/354 (35.88%)	179/354 (50.57%)
[-def, -spec]	391/708 (55.23%)	149/708 (21.05%)
the contexts		
[+def, -spec]	89/118 (75.42%)	26/118 (22.03%)
[+def, +spec]	1,843/2,950 (62.47%)	365/2,950 (12.37%)
a and *the* contexts		
[-def, +spec] & [+def, -spec]	216/472 (45.76%)	205/472 (43.43%)
[-def, -spec] &[+def, +spec]	2,234/3,658 (61.07%)	514/3,658 (14.05%)

Figure 6.3 Thai L2 learners' correct use of English articles between conflicting vs. nonconflicting



In the table 6.4 and the figure 6.3, the results on the Thai learners' English article accuracy in the conflicting semantic contexts reveal that they correctly used *a* at 35.88%, *the* at 75.42%, and both *a* and *the* at 45.76%. For the nonconflicting, accuracy in their use of those articles was at 55.23%, 62.47%, and 61.07%, respectively. When comparing their accuracy between conflicting and nonconflicting semantic contexts, the learners had a higher percentage of their accuracy in *the* use in the conflicting contexts than in the nonconflicting. As discussed earlier, this result might be as a result of the different number of task items testing the learners' article choice between

conflicting and nonconflicting contexts. While they had a higher level of *the* accuracy rates in conflicting contexts than nonconflicting ones, from the overall scores, it seems that mostly, they could more accurately use English articles in the nonconflicting contexts than conflicting, as shown in the figure above.

In order to further compare between the Thai learners' English article accuracy in the conflicting vs. nonconflicting semantic contexts, the statistical tests were performed by using paired t-tests. The results of the statistical analysis on the learners' average scores of correct use of *a*, *the*, and both of them in the conflicting and nonconflicting semantic contexts are shown in the table 6.5.

Table 6.5 Thai L2 learners' correct use of English articles between conflicting vs. nonconflicting semantic contexts

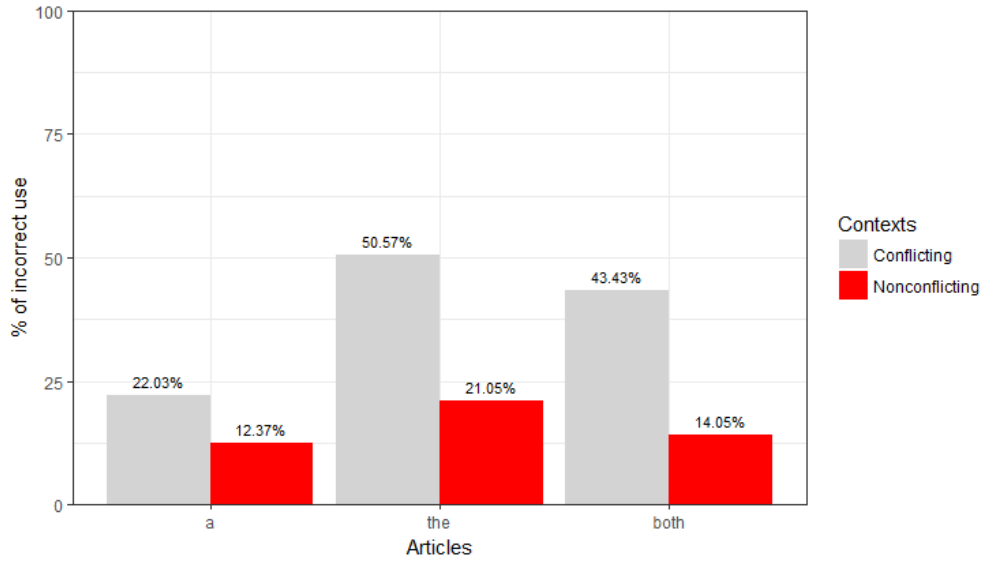
Contexts	**Correct article use rates**					
	n	$\bar{X}$	**SD**	***t***	**p-value**	**Significant difference**
Correct use of *a*						
[-def,+spec] *(CON)*	118	35.88	30.24	-6.98	< 0.001	*CON* vs. *NCON*
[-def,-spec] *(NCON)*	118	55.23	21.87			
Correct use of *the*						
[+def, -spec] *(CON)*	118	75.42	43.24	3.02	0.003	*CON* vs. *NCON*
[+def, +spec] *(NCON)*	118	62.47	21.06			
Correct use of English articles (*a* and *the*)						
[-def, +spec] & [+def, -spec] *(CON)*	118	45.76	23.41	-5.56	< 0.001	*CON* vs. *NCON*
[-def, -spec] & [+def, +spec] *(NCON)*	118	61.07	18.36			

In the table 6.5, it was found that accuracy rates in English article use between the conflicting and nonconflicting semantic contexts by the Thai learners differed significantly ($p < 0.05$). That is, the learners' average percentages of *a* correct use in the nonconflicting contexts: [-definite, -specific] were significantly higher than those in the conflicting contexts: [-definite, +specific]. Conversely, their average percentages of *the* correct use in the conflicting contexts: [+definite, -specific] were significantly higher than those in the nonconflicting contexts: [+definite, +specific], which is possibly since the number of task items testing the learners' article choice in the conflicting and nonconflicting contexts were different. Even so, overall, it was found that their average scores of correct use of English articles in the nonconflicting contexts were significantly higher than in the conflicting. It may, hence, be assumed from these results that the Thai learners tended to experience less difficulty in their use of English articles in the nonconflicting semantic contexts

than in the conflicting contexts. This can support the results found in the FCE task and, then, the proposal by Ionin (2003) and Ionin et al. (2004) that L2 English learners are predicted to have high English article accuracy rates in the nonconflicting semantic contexts.

The figure 6.4 gives the results on L2 English article misuse between different semantic contexts for 118 Thai L2 learners in percentages. It depicts their English article misuse rates: *a*, *the*, and overall English article misuse between conflicting vs. nonconflicting semantic contexts, respectively.

Figure 6.4 Thai L2 learners' misuse of English articles between conflicting vs. nonconflicting semantic contexts



As the table 6.4 and the figure 6.4 show, the Thai learners made errors of article misuse in the conflicting semantic contexts at 22.03% for *a* misuse, 50.57% for *the* misuse, and 43.43% for overall English article (*a* and *the*) misuse. In the nonconflicting contexts, they committed *a* misuse at 12.37%, *the* misuse at 21.05%, and overall English article misuse at 14.05%. From the figure above, it is clear that the Thai learners had a higher percentage of their misuse of *a*, *the*, and English articles (both *a* and *the*) in the conflicting contexts when comparing to their English article misuse in the nonconflicting contexts.

The statistical tests were performed by using paired t-tests in order to further compare between the Thai participants' English article misuse in the conflicting vs. nonconflicting semantic contexts. The results of paired t-tests on the participants' average scores of misuse of *a*, *the*, and both of them in the conflicting and nonconflicting semantic contexts are provided in the table 6.6.

Table 6.6 Thai L2 learners' English article misuse between conflicting vs. nonconflicting semantic contexts

Contexts	Article misuse rates					
	n	$\bar{X}$	**SD**	***t***	**p-value**	**Significant difference**
Misuse of *a*						
[+def,-spec] *(CON)*	118	22.03	41.62	2.49	0.014	*CON* vs. *NCON*
[+def,+spec] *(NCON)*	118	12.37	15.97			
Misuse of *the*						
[-def,+spec] *(CON)*	118	50.57	33.11	10.72	< 0.001	*CON* vs. *NCON*
[-def,-spec] *(NCON)*	118	21.05	17.89			
Misuse of English articles (*a* and *the*)						
[-def, +spec] & [+def, -spec] *(CON)*	118	43.43	24.77	10.91	< 0.001	*CON* vs. *NCON*
[-def, -spec] & [+def, +spec] *(NCON)*	118	14.05	13.25			

When comparing between English article misuse rates in the conflicting and nonconflicting semantic contexts by using paired t-tests, it was found in the table 6.6 that there were statistically significant differences between the participants' average percentages of English article misuse in the conflicting and nonconflicting contexts ($p < 0.05$). That is, their average percentages of *a* misuse in the conflicting contexts: [+definite, -specific] were significantly higher than those in the nonconflicting contexts: [+definite, +specific]. For their average percentages of *the* misuse, the participants showed a significantly higher rate in the conflicting contexts: [-definite, +specific] than in the nonconflicting contexts: [-definite, -specific]. Overall, the results indicate that their average percentages of misuse of English articles (*a* and *the*) in the conflicting contexts were significantly higher than those in the nonconflicting contexts. These results are consistent with what was found in the FCE data and can provide some evidence that supports that the Thai learners exhibited more English article difficulty in the conflicting semantic contexts than in the nonconflicting contexts. Taking these results into consideration, along with the results that mostly, the Thai learners demonstrated more accuracy rates in their use of *a* and *the* in the nonconflicting semantic contexts than in the conflicting contexts, the prediction in this study that Thai learners will have more L2 English article difficulty in the conflicting semantic contexts of articles (i.e., [+definite, -specific] or [-definite, +specific] contexts) than in the nonconflicting ones

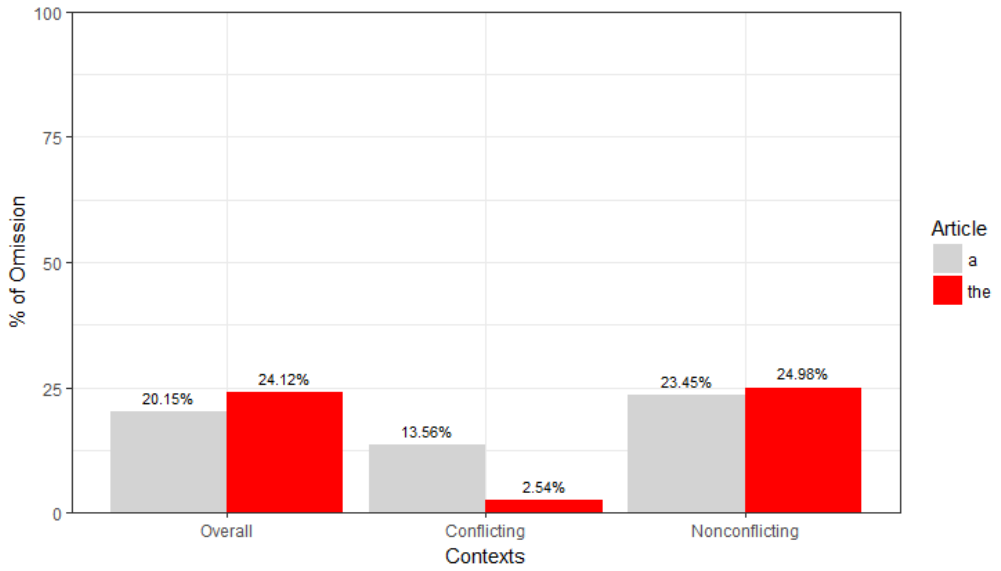
(i.e., [+definite, +specific] or [-definite, -specific] contexts) can be supported since they had more article errors in the former contexts and more article accuracy in the latter. This can, accordingly, be evidence that support Ionin's (2003) and Ionin et al.'s (2004) the FH and the predictions for article choice by L2 English learners that L2 English learners without article system in L1s are expected to exhibit high English article accuracy rates in the nonconflicting semantic contexts: [+definite, +specific] and [-definite, -specific], but high English article misuse rates in the conflicting: [+definite, -specific] and [-definite, +specific].

The table 6.7 shows use rates of different articles, comprising *a*, *the*, and *null*, in each context type by 118 Thai L2 learners in percentages. In the figure 6.5, their *a* vs. *the* omission error rates in each kind of contexts (i.e., overall contexts, the conflicting semantic contexts, and the nonconflicting semantic contexts, respectively) are illustrated. As for their *a* vs. *the* correct use and misuse rates in each of those context types, they were given and discussed in the figure 6.1 and 6.2.

Table 6.7 Thai L2 learners' English article use rates in each context type

Contexts	**Article use rates**			**Total**
	a	***the***	***null***	
Overall (*a* and *the* contexts)				
a contexts	518 (48.78%)	328 (30.89%)	214 (20.15%)	1,062 (100%)
the contexts	391 (12.74%)	1,932 (62.97%)	740 (24.12%)	3,068 (100%)
Conflicting semantic contexts				
[-def, +spec]	127 (35.88%)	179 (50.57%)	48 (13.56%)	354 (100%)
[+def, -spec]	26 (22.03%)	89 (75.42%)	3 (2.54%)	118 (100%)
Nonconflicting sematic contexts				
[-def, -spec]	391 (55.23%)	149 (21.05%)	166 (23.45%)	708 (100%)
[+def, +spec]	365 (12.37%)	1,843 (62.47%)	737 (24.98%)	2,950 (100%)

Figure 6.5 Thai L2 learners' English article omission errors in each context type



As shown in the table and the figure above, the Thai learners committed *a* omission errors in overall contexts at 20.15%, in the conflicting semantic contexts at 13.56%, and in the nonconflicting contexts at 23.45%. Furthermore, in each of those context categories, they made *the* omission errors at 24.12%, 2.54%, and 24.98%, respectively. In the overall and nonconflicting semantic contexts, they more frequently omitted *the* than *a* whereas *a* than *the* in the conflicting contexts. However, as can be seen from the figure 6.5, the learners exhibited a clearly high level of difference between *a* and *the* omission error rates in the conflicting semantic contexts, which was also found in the FCE data. The findings that the Thai learners showed a considerably higher level of *a* omission than *the* omission in the conflicting contexts, where a high degree of difference between *a* and *the* omission rates was found, can be some evidence that the Thai learners preferred *the* to *a* in their English article use. Thus, these findings can provide evidence that supports the prediction in the current study regarding the Thai learners' article preference in their choice of English articles.

As seen from the figure above, the learners made considerably more omission errors in nonconflicting contexts than conflicting. This may be due to the clarity of the semantic contexts and their simplicity in terms of the interpretation of the semantic contexts. When the contexts have a conflict between definiteness and specificity, the learners might have more difficulty to interpret this semantic context type and, then, spend more time in interpreting it than the contexts with no such a conflict. This may lead them to pay more attention to their choosing or using English articles in conflicting contexts, leading them to make use of English articles to a greater degree, rather than article omission in this context type than to do so in nonconflicting. This, thus, might cause them to make more omission errors in nonconflicting contexts than conflicting.

Comparing with the results for their English article omission errors in the FCE task, the learners made *a* and *the* omission errors in the PT task at a relatively higher percentage in almost every context type. The reason for this might be because of the task type; that is, in the production task, this kind of task, used to obtain more naturalistic data, is likely to cause and allow them to more frequently omit English articles than in the other task types (e.g., the forced choice elicitation task). More precisely, the PT might let article omission happen a greater number of times than the FCE; the L2 learners might need to avoid using articles in their English production or might not use English articles due to L1 transfer. This is likely to lead them to produce article omission errors at a greater degree in this test type than in the forced choice elicitation task.

In order to further compare between the Thai learners' omission of *a* vs. *the* in each kind of contexts, the statistical analysis was performed by using paired t-tests. The results of paired t-tests on the learners' average scores of *a* omission and *the* omission in the overall, conflicting, and nonconflicting contexts, respectively, are given in the table 6.8.

Table 6.8 Thai L2 learners' *a* vs. *the* omission rates in each context type

Article omission	**Omission rates**					**Significant difference**
	n	$\bar{X}$	**SD**	***t***	**p-value**	
Overall (*a* and *the* contexts)						
a	118	20.15	18.83	-2.33	0.021	*a* vs. *the*
the	118	24.12	15.76			
Conflicting semantic contexts						
a [-definite, +specific]	118	13.56	22.32	4.93	< 0.001	*a* vs. *the*
the [+definite, -specific]	118	2.54	15.81			
Nonconflicting semantic contexts						
a [-definite, -specific]	118	23.45	20.58	-0.827	0.410	-
the [+definite, +specific]	118	24.98	16.30			

The results of paired t-tests on the participants' average percentages of *a* and *the* omission in the table 6.8 show that the Thai learners' error rates between *a* omission and *the* omission differed significantly in the overall and conflicting contexts ($p < 0.05$) whereas did not in the nonconflicting contexts ($p > 0.05$). The results that the statistically significant difference between *a* omission and *the* omission rates was found in the conflicting contexts are consistent with those revealed in the FCE data. The results from the statistical analysis in the table above can confirm the results

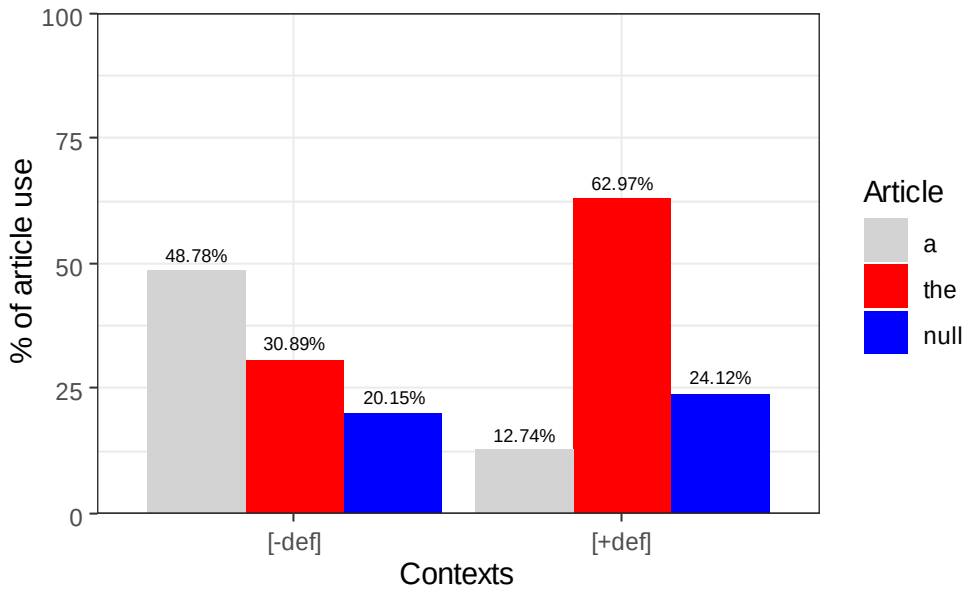
reported in the figure 6.5 that the Thai learners demonstrated a considerably higher level of *a* omission than *the* omission in the conflicting semantic contexts. This is because the results reveal that the Thai learners' average percentages of *a* omission were significantly higher than those of *the* omission in the conflicting contexts. Therefore, from the results, it can be said that the Thai learners tended to have an article preference, that is, to prefer to use *the*.

With regard to the Thai learners' English article choice rates, the table 6.9 summarizes choice rates of *a*, *the,* and *null* in [-definite] and [+definite] contexts by 118 participants in percentages. For the figure 6.6, it indicates their use rates of *a* vs. *the* vs. *null* in [-definite] or *a* contexts and [+definite] or *the* contexts.

Table 6.9 Thai L2 learners' use rates of *a*, *the*, and *null* in [-definite] or *a* and [+definite] or *the* contexts

Contexts	**Article use rates**			**Total**
	a	***the***	***null***	
[-def]	518 (48.78%)	328 (30.89%)	214 (20.15%)	1,062 (100%)
[+def]	391 (12.74%)	1,932 (62.97%)	740 (24.12%)	3,068 (100%)

Figure 6.6 Thai L2 learners' use rates of a, the, and null in [-definite] or a and [+definite] or the contexts



From the table 6.9 and the figure 6.6, the Thai learners showed *a* use rates in [-definite] contexts at 48.78% and in [+definite] contexts at 12.74% while *the* use rates in these contexts at 30.89% and 62.97%, respectively. In relation to their use rates of *null*, they used *null* instead of *a* at 20.15% and instead of *the* at 24.12%. It can be seen from the figure above that compared to the

Thai learners' use rates of *the* and *null,* the highest percentage of *a* correct use was shown in [-definite] contexts, in which they had a higher percentage of *the* misuse than *a* omission. These findings are similar to those shown in the FCE data. For the [+definite] contexts, likewise, they showed the highest percentage of *the* correct use in these contexts, compared to their use rates of *a* and *null*. They produced a higher percentage of *the* omission than *a* misuse in [+definite] contexts. As in the FCE task, from the findings concerning their English article use rates in [-definite] and [+definite] contexts, it appears that the Thai learners exhibited a good performance on their use of English articles, especially *the* as they could more correctly use than misuse and omit English articles. As is illustrated by the figure above, the learners had a higher percentage of omission for *the* than *a*, also found in the results of the FCE task on their articles omission in conflicting semantic contexts. These results seem to be able to assert that the Thai learners prefer to omit *the*. As previously discussed, such a preference may be because of the less complicated using conditions of *the* than *a* in terms of being not necessary to consider the countability and number of nouns in the case for *the* (Lardiere, 2004). Such lower complexities of *the* usage might make them to bear in mind that they could more frequently omit *the* than they could omit *a* when the given nouns are determined by them that no articles are needed. If this is the case, it, then, may result to a higher degree of *the* omission than *a* omission.

In order to further compare between the Thai participants' different article choice rates in [-definite] and [+definite] contexts, the statistical tests were performed by using ANOVA with repeated measures and Bonferroni approach for multiple comparisons. The results of the statistical analysis on the learners' average scores of *a*, *the*, and *null* use in each of the different contexts are given in the table 6.10.

Table 6.10 Thai L2 learners' use rates of *a* vs. *the* vs. *null* in [-definite] or [+definite] contexts

Article use	**Use rates of *a* vs. *the* vs. *null***					**Significant difference**
	n	$\overline{X}$	**SD**	***F***	**p-value**	
[-definite] ('*a*') contexts						
a	118	48.78^{a}	20.55	42.69	< 0.001	*a* vs. **the* *a* vs. **null* **the* vs. **null*
**the*	118	30.89^{b}	19.50			
**null*	118	20.15^{c}	18.83			
[+definite] ('*the*') contexts						
**a*	118	12.74^{a}	15.69	179.44	< 0.001	**a* vs. *the* **a* vs. **null* *the* vs. **null*
the	118	62.97^{b}	20.45			
**null*	118	24.12^{c}	15.76			

*Note: * denotes article errors*

From the table 6.10, similar to the FCE task, in the PT task, the results of ANOVA with repeated measures and multiple comparisons on the participants' average percentages of English article choice rates in [-definite] and [+definite] contexts indicate that in each of these contexts, statistically significant differences between their use rates of *a*, *the*, and *null* were found ($p < 0.05$). That is, in [-definite] contexts, the Thai learners' average percentages of correct use of *a* were significantly higher than those of *the* overuse and those of *a* omission; between their average percentages of *the* overuse vs. *a* omission, the former were significantly higher than the latter. These results can be evidence that the Thai learners were likely to establish the concept of English article use in their mind because they demonstrated a significantly greater degree of English article use, including correct use and misuse, than English article omission. As discussed earlier, this can, then, be a way of showing that the Thai learners were in the process of resetting from the Nominal Mapping Parameter (NMP) setting of Thai, whose NPs lack articles, to the NMP setting of English.

For the results of the statistical comparisons between different article use rates in [+definite] contexts, their average percentages of correct use of *the* were significantly higher than those of *a* overuse and those of *the* omission. For their article errors in [+definite] contexts, in contrast to the FCE task, the results in the PT task reveal that the learners had a significantly greater degree of omission errors (i.e., *the* omission) than substitution errors (i.e., *a* overuse). Part of the reason for high omission errors in the PT task is possibly because of the task type. When taking the PT task, aimed at collecting more naturalistic data on the learner article choice, the learners were asked to produce English sentences by using word prompts provided. In doing so, it may increase more chance that they omit English articles when taking a naturalistic task (i.e., PT) than when just choosing options (articles) available in the task as the FCE; as a result, more article omission may be found in the PT than in the FCE. In addition, they may want to lower an opportunity for using wrong English articles when producing English sentences in the PT task and, therefore, decide that they had better not use any articles when unsure, bringing about relatively high rates of *null* in this task type. Furthermore, the findings that in [+definite] contexts, the learners' accuracy rates of *the* were significantly higher than article use and omission error rates, and they had a significantly higher level of omission errors (i.e., *the* omission) than substitution errors (i.e., *a* overuse) may be because the Thai learners use *the* as a default form, not *a* in their English article choice (indicating a preference for *the* in their article use). Besides, when they are uncertain about the articles, they might decide to omit them rather than use the marked article *a* (causing more *the* omission than *a* overuse). Due to using the PT task for eliciting more naturalistic learner English article choice, data from the PT task is likely to help to effectively reflect a potential factor that tends to be an impact on their English article acquisition. In this

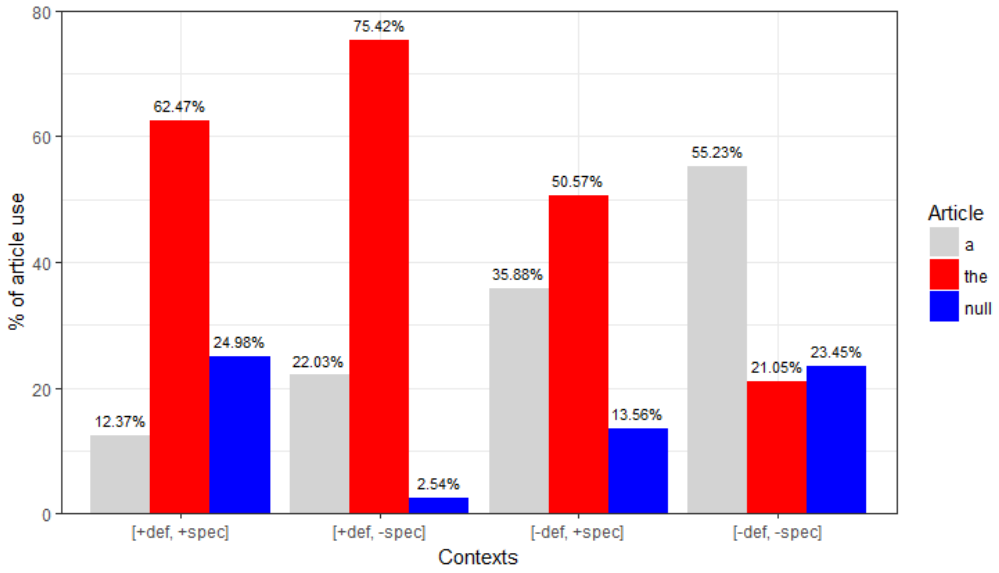
sense, the results for somewhat high omission errors in the PT task may reflect the Thai learners' L1 interference in that Thai has no articles, causing them to commit article omission errors. Nevertheless, as seen in the results for English article accuracy in [-definite] and [+definite] contexts in the PT data, consistent with those in the FCE data, it seems that overall, the Thai learners could correctly use English articles at a higher rate than they committed article errors, including substitution and omission.

The table 6.11 reports article use rates of a, *the*, and *null* in each of the different semantic contexts by 118 Thai participants in percentages. In the figure 6.7, their use rates of *a* vs. *the* vs. *null* in [+definite, +specific], [+definite, -specific], [-definite, +specific], and [-definite, -specific], respectively, are shown.

Table 6.11 English article use rates in each semantic context type by Thai learners

Contexts	**Article use rates**			**Total**
	a	***the***	***null***	
Definite contexts				
[+definite, -specific]	26 (22.03%)	89 (75.42%)	3 (2.54%)	118 (100%)
[+definite, +specific]	365 (12.37%)	1,843 (62.47%)	737 (24.98%)	2,950 (100%)
Indefinite contexts				
[-definite, +specific]	127 (35.88%)	179 (50.57%)	48 (13.56%)	354 (100%)
[-definite, -specific]	391 (55.23%)	149 (21.05%)	166 (23.45%)	708 (100%)

Figure 6.7 English article use rates in each semantic context type by Thai learners



As shown in the table 6.11 and the figure 6.7, the Thai participants demonstrated *a* overuse rates at 12.37%, *the* correct use rates at 62.47%, and use rates of *null* instead of *the* at 24.98% in

[+definite, +specific] contexts and at 22.03%, 75.42%, and 2.54%, respectively, in [+definite, -specific] contexts. In the other two context types, nevertheless, they showed *a* correct use rates at 35.88%, *the* overuse rates at 50.57%, and use rates of *null* instead of *a* at 13.56% in [-definite, +specific] contexts and at 55.23%, 21.05%, and 23.45%, respectively, in [-definite, -specific] contexts.

The results for English article use rates in each semantic context type in the PT data indicate that in the contexts requiring *the*, the Thai learners appeared to show a relatively high performance on their choice of L2 English articles, similar to the results in the FCE data. More specifically, they produced a higher rate of correct use of *the* when comparing to misuse of *a* and omission of *the* in [+definite, +specific] and [+definite, -specific] contexts. The relatively high performance on their *the* use might be a result of their preference for *the* in their choice of English articles.

With regard to the contexts requiring *a*, the learners seemed to have article difficulty or, more precisely, difficulty in using *a* in that in [-definite, +specific] contexts, they committed errors of *the* misuse at a higher percentage than they accurately applied *a*. Furthermore, in [-definite, -specific] contexts though compared to *the* misuse and to *a* omission, a higher rate of *a* correct use was shown, when comparing between their accuracy rates and their error rates, including *the* misuse and *a* omission, they demonstrated a similar rate of the former to the latter. Consequently, these results can support the prediction of the current study that Thai leaners will show a greater accuracy rate in *the* use than *a* use. As is illustrated by the figure above, they tended to fluctuate between the ACP settings of definiteness and specificity in their English article use in [-definite, +specific] contexts since their correct use and misuse rates seemed to be not substantially different. The prediction in this study that Thai learners will show fluctuation between the definiteness and specificity settings of the ACP in their L2 English article choice can be supported by the result.

Essentially, as demonstrated by the figure above, the Thai learners showed higher *the* accuracy rates in [+definite, -specific] contexts than in [+definite, +specific] contexts. This possibly suggests that they are not adopting the specificity setting of the ACP but are using a particular article use strategy (i.e., an article preference) in their English article choice. Conversely, for indefinite contexts, the learners appeared to favour *a* use when the contexts are [-specific] over when the contexts are [+specific]; it was, hence, found in the results that they showed fluctuation in their English article choice in [-definite, +specific] contexts, not in [-definite, -specific] contexts. Due to the fact that the fluctuation hypothesis (FH) does not provide the explanation of differences in the settings for definites versus indefinites, the FH cannot entirely explain the research data. In other words, from the findings, it might be concluded that the Thai learners' English article choice

behaviour could not be fully explained by the FH because while the Thai L2 learners' indefinite article choice seems to be consistent with the explanation of L2 article choice in the FH, their definite article choice tends to be inconsistent with that. In the case for definite articles, the Thai learner definite article choice could probably be explained by an article preference (i.e., their preference for *the* when choosing English articles, as pointed out above).

The statistical tests were performed by using ANOVA with repeated measures and Bonferroni approach for multiple comparisons in order to further compare between the learners' different article use rates in each semantic context type. The results of the statistical analysis on the Thai participants' average scores of *a*, *the*, and *null* use in each of the different semantic contexts are provided in the table 6.12 below.

Table 6.12 Thai learners' use rates of *a* vs. *the* vs. *null* in each semantic context type

Article use	**Use rates of *a* vs. *the* vs. *null***					**Significant difference**
	n	$\bar{X}$	**SD**	***F***	**p-value**	
[+definite, +specific] contexts						
**a*	118	12.37[a]	15.97	166.23	< 0.001	**a* vs. *the* **a* vs. **null* **the* vs. **null*
the	118	62.47[b]	21.06			
**null*	118	24.98[c]	16.30			
[+definite, -specific] contexts						
**a*	118	22.03[a]	41.62	87.23	< 0.001	**a* vs. *the* **a* vs. **null* *the* vs. **null*
the	118	75.42[b]	43.24			
**null*	118	2.54[c]	15.81			
[-definite, +specific] contexts						
a	118	35.88[a]	30.24	32.65	< 0.001	*a* vs. **the* *a* vs. **null* **the* vs. **null*
**the*	118	50.57[b]	33.11			
**null*	118	13.56[c]	22.32			
[-definite, -specific] contexts						
a	118	55.23[a]	21.87	70.39	< 0.001	*a* vs. **the* *a* vs. **null*
**the*	118	21.05[b]	17.89			
**null*	118	23.45[b]	20.58			

*Note: * denotes article errors*

In the Table 6.12, it was found that in every semantic context category except [-definite, -specific], where the statistically significant difference between *the* and *null* was not shown, the Thai learners' use rates between *a*, *the*, and *null* differed significantly ($p < 0.05$). Their average percentages of accuracy in *a* use and *the* use were significantly higher than those of article errors (i.e., article misuse and article omission) in all of the various semantic context types apart from [-

definite, +specific]. That is, in the PT task, the results, inconsistent with those reported in the FCE task, reveal that in [-definite, +specific] contexts, their average scores of *the* misuse were significantly higher than those of correct *a* use. This means that the Thai learners seemed to adopt the specificity setting of the ACP when using English articles in such a context type. In other words, they showed the specificity article use pattern (i.e., making use of a specificity distinction in their English article choice in [-definite, +specific] contexts at a significantly high level. From these findings and the result in the FCE task that the learners exhibited the fluctuation between the two settings of the ACP in their use of English articles in [-definite, +specific] contexts, it may be concluded that the Thai L2 learners experienced a considerably high degree of problem with using of *a* in the conflicting semantic contexts and that learner English article difficulty was affected by specificity. This can provide some evidence that supports Lardiere's (2004) claim that the indefinite article in English (*a*) seems to be more complicated to use than the English definite article (*the*) and Ionin et al.'s (2004) claim that article choice in L2 English is affected by the semantic feature of specificity and, hence, not random. For the other conflicting semantic context type, like the FCE data, the PT data reveal that there was no fluctuation in the Thai participants' English L2 article choice in [+definite, -specific] contexts. This phenomenon is, to a certain extent, likely to be as a result of a preference for *the* in their English article use which the Thai learners exhibited. Considering their article choice scores from elicitation and production data, the main reason why the Thai learners did worse in the production task (a written task) than in the forced choice elicitation task (a multiple-choice task) may be because when performing the constructed response task (PT), the learners will have more cognitive load in taking this kind of task, for instance, considering word choice, word order, or sentence structure in order to write English sentences as the PT task responses than when taking the selected response task (FCE). To clarify, there is less task takers' cognitive task load in the multiple-choice test since each test item of the elicitation task, consisting of a set of options about articles (*a*, *the*, *null*), needs the respondents to choose one option from the article list given. Compared to the production task, in which the learners need to write English sentences as the task responses, the set of options, presented in the FCE items, might more stimulate their interest in article use, and, then, they might more recognize a correct article choice, resulting in higher article accuracy rates in the elicitation task than the production task.

The PT results of the statistical analysis in the nonconflicting semantic contexts show that in [-definite, -specific] contexts, the Thai learners' use rates between misuse of *the* and *null* did not differ significantly. Still, they produced the latter error at a higher percentage than the former error. More importantly, in [+definite, +specific] contexts, the learners showed a significantly higher level of *the* omission than *a* misuse. This result is consistent with their English article choice

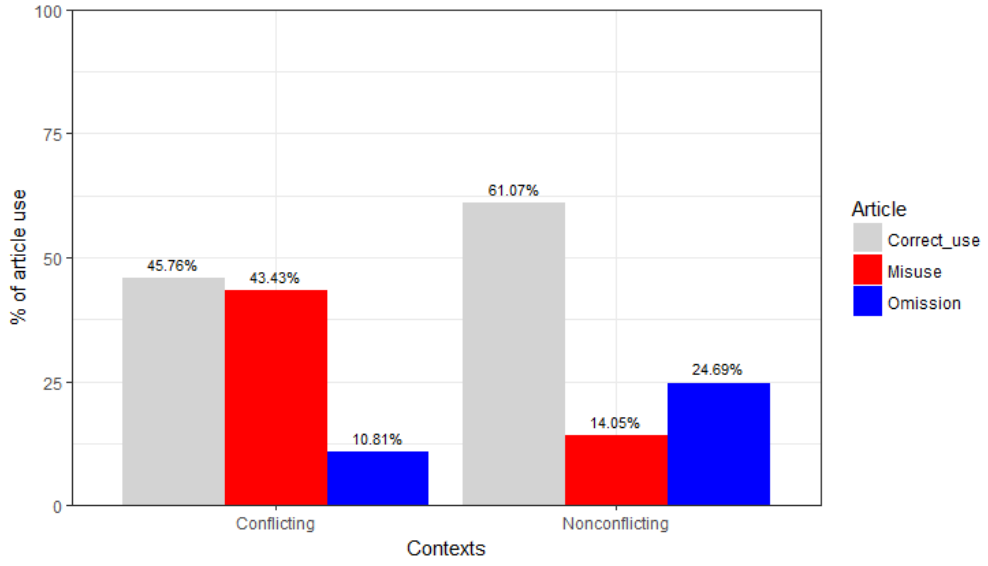
errors in [+definite] contexts (i.e., more article omission than misuse), illustrated in the table 6.10. Such a fairly high rate of *null* in the PT task may be associated with the learner desiring to avoid using articles in this task, as previously mentioned.

The table 6.13 gives English article choice rates in conflicting and nonconflicting semantic contexts for 118 Thai learners in percentages. Their choice rates of correct article use, article misuse, and article omission in the conflicting contexts: [+definite, -specific] and [-definite, +specific] or the nonconflicting contexts: [+definite, +specific], [-definite, -specific] are depicted in the figure 6.8.

Table 6.13 English article use rates in conflicting and nonconflicting semantic contexts by Thai L2 learners

English article use rates in conflicting and nonconflicting semantic contexts			
Conflicting semantic contexts: *[+definite, -specific]& [-definite, +specific]*			
Correct article use	**Article misuse**	**Article omission**	**Total**
216 (45.76%)	205 (43.43%)	51 (10.81%)	472 (100%)
Nonconflicting semantic contexts: *[+definite, +specific]& [-definite, -specific]*			
Correct article use	**Article misuse**	**Article omission**	**Total**
2,234 (61.07%)	514 (14.05%)	903 (24.69%)	3,658 (100%)

Figure 6.8 English article use rates in conflicting and nonconflicting semantic contexts by Thai L2 learners



From the table 6.13 and the figure 6.8 above, the Thai learners correctly employed *a* and *the* at 45.76% and misused these articles at 43.43% but omitted them at 10.81% in the conflicting

semantic contexts. For the nonconflicting contexts, they showed *a* and *the* correct use rates at 61.07%, *a* and *the* misuse rates at 14.05%, and *a* and *the* omission rates at 24.69%.

As clearly seen from the figure 6.8, the Thai learners could correctly use English articles to a high degree in the nonconflicting semantic contexts since their correct article use reached at more than 60% of the times in the nonconflicting contexts while at less than 50% in the conflicting. It can be assumed from these results that L2 English article use in the contexts without a conflict between the two semantic features (definiteness and specificity) caused a lower level of article difficulty for the Thai learners than using English articles in the conflicting contexts. This can thus support the predictions related to L2 learners' English article choice by Ionin (2003) and Ionin et al. (2004). Also, it can provide support for the prediction in this study that Thai learners will not experience difficulty with L2 English article use in the nonconflicting semantic contexts. The Thai learners, moreover, showed a fairly high omission error rates in their English article choice, which was probably a result of the task type (i.e., a production task). This is because when taking the PT task, the learners might desire to avoid using English articles when writing English sentences, which could, then, lead to a greater level of *null* in this task type than in the FCE task.

The statistical tests were performed by using ANOVA with repeated measures, followed by Bonferroni approach for multiple comparisons, in order to further compare between article choice rates of different types of the Thai learners' L2 English article choice in conflicting and nonconflicting semantic contexts. The results of the statistical analysis on the learners' average scores of correct use, misuse, and omission of English articles (*a* and *the*) in each of those contexts are provided in the table 6.14.

Table 6.14 Thai L2 learners' use rates of English articles between different article use types in conflicting or nonconflicting semantic contexts

Type of article use	**English article use rates**					**Significant difference**
	n	$\bar{X}$	**SD**	***F***	**p-value**	
Conflicting semantic contexts						
Correct use *(C)*	118	45.76[a]	23.41	60.61	< 0.001	*C vs. O* *M vs. O*
Misuse (*M*)	118	43.43[a]	24.77			
Omission (*O*)	118	10.81[b]	18.05			
Nonconflicting semantic contexts						
Correct use *(C)*	118	61.07[a]	18.36	192.53	< 0.001	*C vs. M* *C vs. O* *M vs. O*
Misuse (*M*)	118	14.05[b]	13.25			
Omission (*O*)	118	24.69[c]	15.26			

The results of ANOVA with repeated measure and multiple comparisons on the Thai learners' English article choice rates between different article use types in conflicting and nonconflicting semantic contexts in the table 6.14 reveal that there were statistically significant differences between their average percentages of English article accuracy and those of English article omission and between those of article misuse and those of article omission. In regard to pairwise comparison between correct use and misuse of English articles, the results indicate that their average percentages of article accuracy and those of article misuse differed significantly in the nonconflicting contexts but did not in conflicting ones.

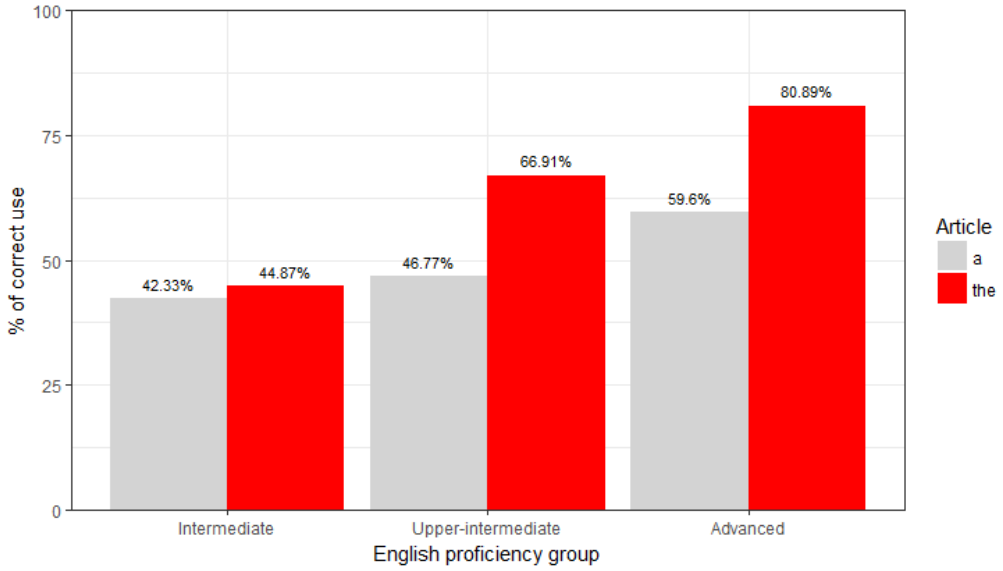
As can be seen, in the conflicting semantic contexts, the Thai learners exhibited fluctuation between the definiteness and specificity settings of the ACP in their choice of English articles since their correct use rates and their misuse rates of English articles (*a* and *the*) did not significantly differ. This means that they made use of a specificity distinction in their English article choice some of the time and, then, showed the fluctuation in the conflicting contexts; that is, their English article difficulty was affected by specificity. This can support the predictions in this study that Thai leaners will fluctuate between the definiteness and specificity ACP settings in their L2 English article choice and that they will have English article difficulty in the conflicting semantic contexts. For the nonconflicting semantic contexts, the results reveal that they had a considerably high degree of correct use of English articles in that it was found that in this context type, they had significantly higher article accuracy rates when comparing to the error rates. In other words, they indicated high accuracy in their English article choice in the contexts without a conflict between the definiteness and specificity features. Taking these findings into consideration, it can be evidence that L2 learners' English article choice is affected by the semantic universals (definiteness and, especially, specificity). Therefore, it seems that the Thai learners'English article choice performance shown in the PT data was consistent with the FH and the predictions for English article choice by L2 leaners, proposed by Ionin (2003) and Ionin et al. (2004).

From the results shown in the table above, it seems that overall, the Thai learners omitted English articles (*a* and *the*) to a lower degree than they correctly and/or incorrectly used the articles. This is consistent with the results found in the FCE data. It can thus be stated that the Thai learners tended to establish the concept of using English articles with NPs in their mind and, hence, that they were likely to be in the process of the NMP resetting from NPs without any articles (the NMP setting for Thai) to NPs that can co-occur with articles (the NMP setting for English).

6.2 Results of the Thai L2 learners' English article choice by proficiency level

The Figure 6.9 provides correct use of the indefinite article (*a*) and the definite article (*the*) in English for each proficiency group of the Thai L2 learners in percentages. It shows correct use rates of *a* vs. *the* in each English proficiency level group.

Figure 6.9 Correct use of a vs. the in each English proficiency level group of Thai learners



In the figure 6.9, it was found that overall, the intermediate group could more accurately use *the* (44.87%) than *a* (42.33%). The upper-intermediate and advanced groups also more correctly used *the* (66.91% for the former and 75.76% for the latter) than *a* (46.77% for the former and 74.55% for the latter). Therefore, the results in the figure above indicate that all groups showed a higher percentage of *the* correct use than *a* correct use. However, the results of the statistical analysis, performed by using paired t-tests in order to further compare between correct use of *a* vs. *the* in each proficiency group, reveal that there was statistically significant difference between average percentages of correct use of *a* in [-definite] contexts and correct use of *the* in [+definite] contexts only in the upper-intermediate and advanced groups. That is, the statistical results, given in the table 6.15, show that the upper-intermediate and advanced learners demonstrated a significantly higher percentage of *the* correct use than *a* correct use while the other group did not. Based on these results, it seems that the developmental stages of English article acquisition the different proficiency groups of Thai learners go through are as follows. The result that the intermediate Thai L2 learners correctly used *a* and *the* at the same rate may be assumed that Thai intermediates have not, yet, been likely to be aware that English articles mark definiteness, not

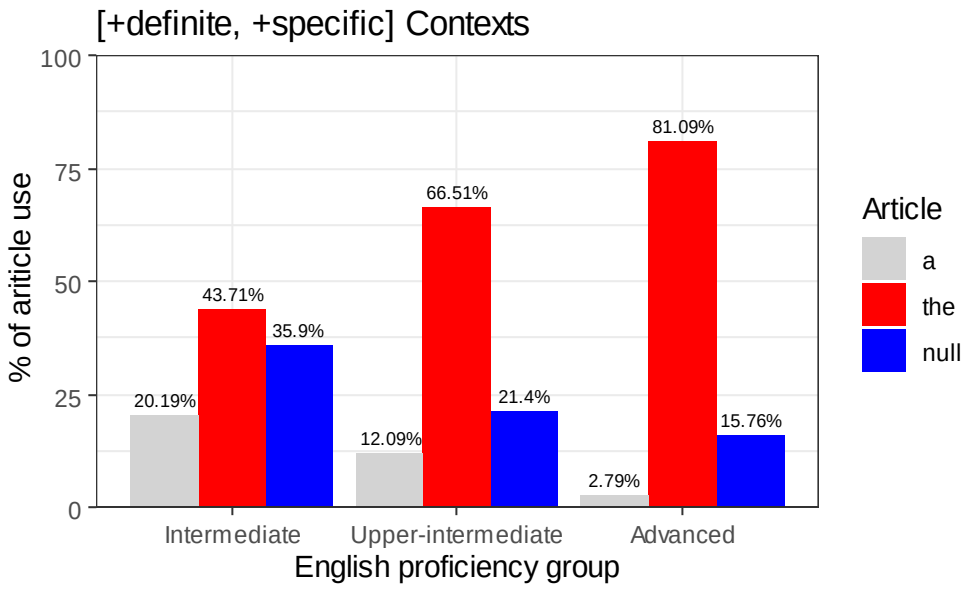
specificity, and that when comparing the definite article to the indefinite article in English, the use of the former is more simple than that of the latter as *the* can be used with both mass and count nouns as well as both singular and plural nouns whereas *a* with singular count nouns only. They, thus, fluctuate between the ACP settings of definiteness and specificity in their English article choice, and they have not shown an article preference (*the* preference) in this stage. As for the Thai upper-intermediate learners, the result that they improved their u*se of the*, but not *a* may be assumed that Thai upper-intermediates still have L2 input at a limited level to realize that English articles mark definiteness, indicating article difficulty in this stage, but they might have been aware of the lower complexities of *the* usage than *a* and, then, show *the* preference in their article use, leading to the result for more accuracy rates of *the* than *a* and indicating improvement on their use of *the* in this English proficiency level. For the Thai advanced learners, the result that they tended to improve their u*se* of both *the* and *a* may be assumed that Thai advanced learners have fairly sufficient L2 input to be aware of definiteness marking in English article system to some extent, demonstrating improvement in their use of *the* and *a* in this stage. However, the advanced learners still tend to have *the* preference in that it was found in the results that they could more accurately use *the* than *a.*

Table 6.15 Each Thai proficiency group's correct use of *a* vs. *the*

Articles	**Rates of correct use of *a* vs. correct use of *the***					**Significant difference**
	n	$\overline{X}$	**SD**	***t***	**p-value**	
Intermediate group						
a	42	42.33	18.89	-0.58	0.563	-
the	42	44.87	14.95			
Upper -intermediate group						
a	43	46.77	20.51	-5.04	< 0.001	*a* vs. *the*
the	43	66.91	14.83			
Advanced group						
a	33	74.55	12.77	-4.84	< 0.001	*a* vs. *the*
the	33	75.76	11.19			

In order to compare between different article choice rates in [+definite, +specific] contexts in each proficiency level group of the Thai participants, the statistical tests were performed by using one-way ANOVA with repeated measure, followed by Bonferroni approach for pairwise comparison. The results of the statistical comparisons between average scores of *a*, *the,* and *null* use in [+definite, +specific] contexts by intermediate, upper-intermediate or advanced Thai learners are provided in the table 6.16. The figure 6.10 was produced to give a clear view of the results for their article choice rates of *a* vs. *the* vs. *null* in [+definite, +specific] contexts for each of the different proficiency level groups in percentages.

Figure 6.10 English article choice rates in [+definite, +specific] contexts by each English proficiency level group of the Thai learners



As the figure 6.10 illustrates, when choosing English articles in [+definite, +specific] contexts, the intermediate learners showed the highest percentage of *the* correct use (43.71%), compared to their overuse of *a* (20.19%) and their omission of *the* (35.9%). The similar results were indicated in the upper-intermediate and advanced groups. In [+definite, +specific] contexts, the upper-intermediate learners had use rates of *a* misuse at 12.09%, *the* correct use at 66.51%, and *null* instead of *the* at 21.4%, and the advanced group at 2.79%, 81.09%, and 15.76%, respectively.

As can be seen in the figure 6.10, every proficiency group demonstrated a higher rate of correct use of *the* than misuse of *a* as well as omission of *the* while they committed more errors of *the* omission than *a* misuse in [+definite, +specific] contexts. This can be asserted by the results of the statistical analysis by performing ANOVA with repeated measures and Bonferroni approach for multiple comparisons in the table 6.16 below.

Table 6.16 Each proficiency level group of the Thai learners' use rates of *a* vs. *the* vs. *null* in [+definite, +specific] contexts

Article use	Use rates of *a* vs. *the* vs. *null*					Significant difference
	n	$\overline{X}$	**SD**	***F***	**p-value**	
Intermediate group						
**a*	42	20.19[a]	18.86	14.25	< 0.001	**a* vs. *the* **a* vs. **null*
the	42	43.71[b]	15.13			
**null*	42	35.90[b]	16.18			
Upper-intermediate group						
**a*	43	12.09[a]	14.85	118.30	< 0.001	**a* vs. *the* **a* vs. **null* *the* vs. **null*
the	43	66.51[b]	15.47			
**null*	43	21.40[c]	12.50			
Advanced group						
**a*	33	2.79[a]	3.53	327.54	< 0.001	**a* vs. *the* **a* vs. **null* *the* vs. **null*
the	33	81.09[b]	13.16			
**null*	33	15.76[c]	13.04			

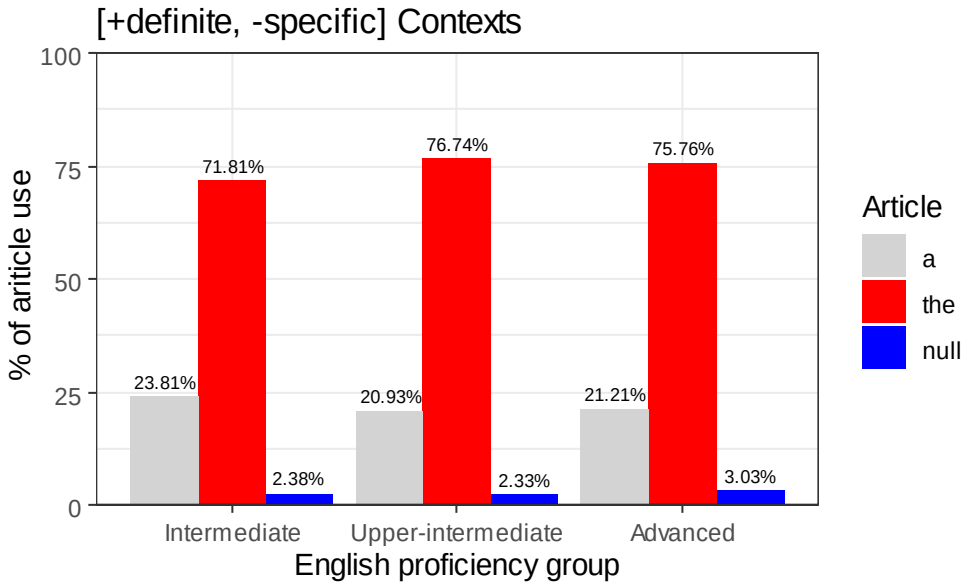
*Note: * denotes article errors*

The statistical results show that almost in every proficiency group, there were statistically significant differences between their use rates of *a*, *the*, and *null* in [+definite, +specific] contexts ($p < 0.05$). That is, every Thai proficiency group's average percentages of correct use of *the* were significantly higher than those of misuse of *a* and those of *the* omission in [+definite, +specific] contexts; in these contexts, every proficiency group exhibited a significantly higher level of *the* omission than *a* misuse.

The results that all three Thai proficiency groups, even the intermediate learners, demonstrated a significantly higher rate of correct use of *the* than misuse of *a* and omission of *the* can be interpreted that the Thai learners seemed to have article difficulty in [+definite, +specific] contexts at a low level, but the intermediate learners tended to still have article difficulty in these contexts as it was found from the results that they frequently omitted the target English article, where it was needed. However, the results for a low level of article difficulty in the Thai learners' choosing English articles in [+definite, +specific] contexts can, to some extent, support for the prediction of this study that Thai learners will not have L2 English article difficulty in the nonconflicting semantic contexts and for the predictions of the FH that English L2 learners from an article-less L1 are predicted to be able to produce correct use of *the* in [+definite, +specific] at a high degree.

For comparing between different article choice rates in [+definite, -specific] contexts in each Thai proficiency group, the statistical tests were performed by using one-way ANOVA with repeated measure and Bonferroni approach for multiple comparisons. The results of the statistical comparisons between average scores of *a*, *the,* and *null* use in [+definite, -specific] contexts in intermediate, upper-intermediate or advanced group are reported in the table 6.17.

Figure 6.11 English article choice rates in [+definite, -specific] contexts by each English proficiency level group of the Thai learners



From the figure 6.11, in [+definite, -specific] contexts, all groups had more use rates of *the* correct use (71.81% for intermediate, 76.74% for upper- intermediate, and 75.76% for advanced) than misuse of *a* (23.81% for intermediate, 20.93% for upper- intermediate, and 21.21% for advanced) as well as omission of *the* (2.38% for intermediate, 2.33% for upper- intermediate, and 3.03% for advanced). All groups showed more misuse of *a* than *the* omission in their English article use with [+definite, -specific] contexts. These results can be confirmed by the results of the statistical analysis by performing ANOVA with repeated measures and Bonferroni approach for multiple comparisons in the table 6.17.

In respect of the Thai learners' article accuracy rates in definite contexts, the result that in the conflicting contexts, the learners could correctly use *the* at a high level is consistent with the result found in their article use in conflicting contexts on the FCE task. Moreover, it can be seen from the figure 6.10 and 6.11 that the L2 learners, especially intermediate and upper-intermediate groups, did better in conflicting contexts than nonconflicting. The main reason for this may be in relation to the number of PT task items focusing on testing the learners' article use in [+definite, -specific] contexts and in [+definite, +specific] were quite different, and results on their article use rates (either correct or incorrect use) in these two contexts, therefore, were also

found quite different. In addition to the difference in the number of task items, as previously mentioned, the result that they showed more *the* correct use in conflicting contexts than nonconflicting is also possibly interpreted that the learners were not using the specificity setting of the ACP in their English article choice; besides, they were likely to be applying a particular strategy of article use: an article preference (i.e., their preference for *the*) to their English article use as they had a high level of *the* correct use rates in both definite contexts.

Table 6.17 Each proficiency level group of the Thai learners' use rates of *a* vs. *the* vs. *null* in [+definite, -specific] contexts

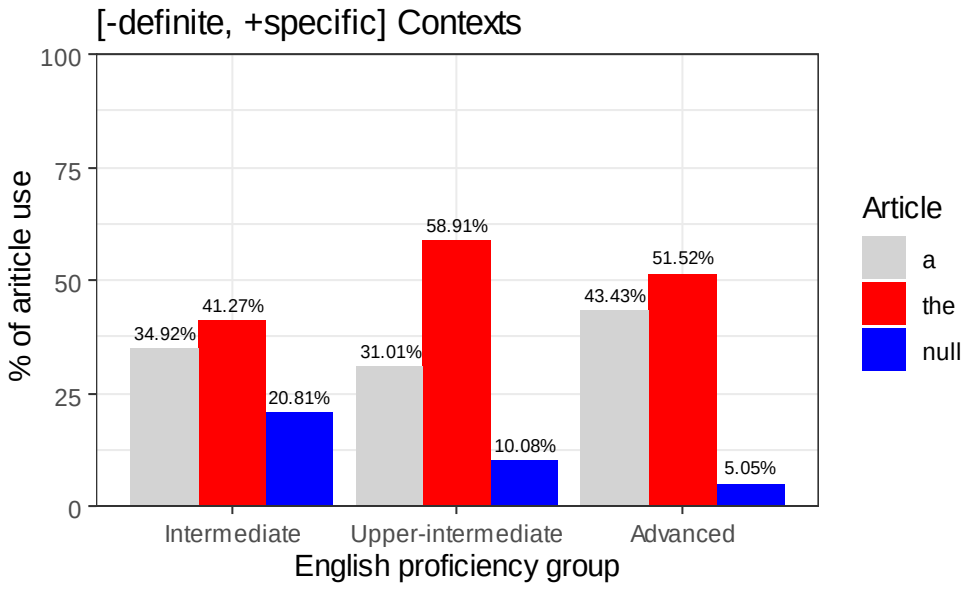
Article use	**Use rates of *a* vs. *the* vs. *null***					**Significant difference**
	n	$\overline{X}$	**SD**	***F***	**p-value**	
Intermediate group						
**a*	42	23.81[a]	43.11	27.68	< 0.001	**a* vs. *the* **a* vs. **null* *the* vs. **null*
the	42	73.81[b]	44.50			
**null*	42	2.38[c]	15.43			
Upper-intermediate group						
**a*	43	20.93[a]	41.16	34.36	< 0.001	**a* vs. *the* **a* vs. **null* *the* vs. **null*
the	43	76.74[b]	42.75			
**null*	43	2.33[c]	15.25			
Advanced group						
**a*	33	21.21[a]	41.51	24.12	< 0.001	**a* vs. *the* **a* vs. **null* *the* vs. **null*
the	33	75.76[b]	43.52			
**null*	33	3.03[c]	17.41			

*Note: * denotes article errors*

The results of the statistical tests in the table 6.17 show that there were statistically significant differences between their use rates of *a*, *the*, and *null* in [+definite, -specific] contexts ($p < 0.05$) in all three groups. The learners in these groups indicated average percentages of correct use of *the* were significantly higher than those of misuse of *a* and those of *the* omission in [+definite, +specific] contexts. The results indicate that all Thai proficiency groups did not show fluctuation between the two settings of the ACP; they showed a significantly high level of *the* correct use. Their article use patterns in this conflicting context type were not in line with the predictions of the FH. Moreover, every proficiency group except intermediate showed a significantly higher level of *a* misuse than *the* omission. The results indicate that each Thai proficiency group demonstrated a significantly higher rate of the English article use (*the* correct use and *a* misuse) than article omission (*the* omission).

In order to compare between different article choice rates in [-definite, +specific] contexts in each proficiency level group of the Thai participants, the statistical tests were performed by using one-way ANOVA with repeated measure and Bonferroni approach for multiple comparisons. The results of the statistical comparisons between average scores of *a*, *the,* and *null* use in [-definite, +specific] contexts by intermediate, upper-intermediate or advanced Thai learners are shown in the table 6.18. The figure 6.12 was provided for a clear view of the results for their article choice rates of *a* vs. *the* vs. *null* in [-definite, +specific] contexts by each of the different proficiency level groups in percentages.

Figure 6.12 English article choice rates in [-definite, +specific] contexts by each English proficiency level group of the Thai learners



As is shown by the figure 6.12, in [-definite, +specific] contexts, all groups of the Thai learners showed more use rates of misuse of *the* (41.27% for intermediate, 58.91% for upper-intermediate, and 51.52% for advanced) than *a* correct use (34.92% for intermediate, 31.01% for upper-intermediate, and 43.43% for advanced) and than omission of *a* (20.81% for intermediate, 10.08% for upper-intermediate, and 5.05% for advanced). The results of the statistical analysis by performing ANOVA with repeated measures and Bonferroni approach for multiple comparisons reveal that there were statistically significant differences between their *a* correct use rates and their *the* misuse rates in [-definite, +specific] contexts ($p > 0.05$). All groups' average percentages of misuse of *the* were significantly higher than those of *a* correct use in in [-definite, +specific] contexts, showing the specificity article use patterns in all groups. This means that they showed the specificity pattern of English article use in their article use with [-definite, +specific] contexts. These findings were given in the table 6.18 below.

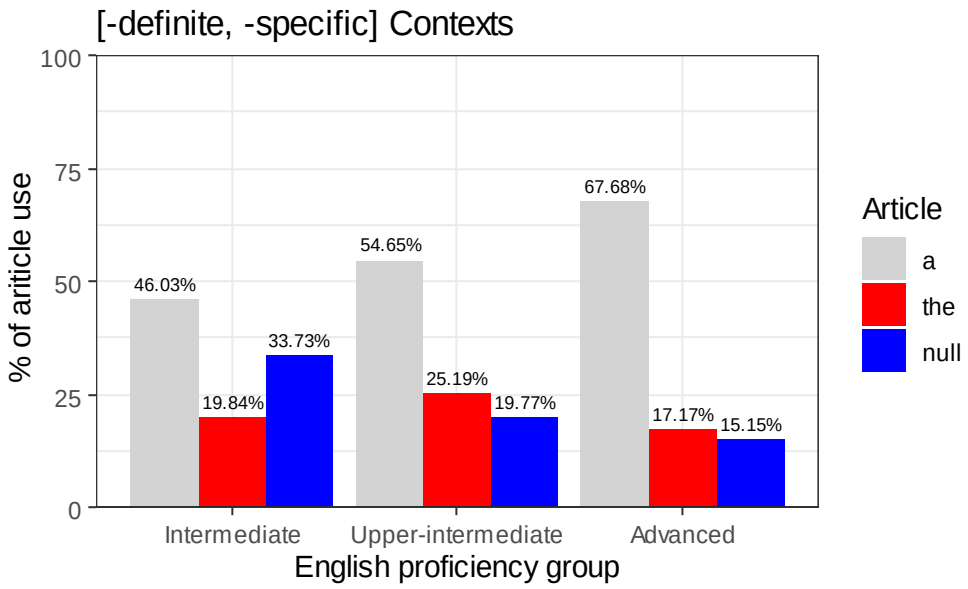
Table 6.18 Each proficiency level group of the Thai learners' use rates of *a* vs. *the* vs. *null* in [-definite, +specific] contexts

Article use	Use rates of *a* vs. *the* vs. *null*					Significant difference
	n	$\overline{X}$	**SD**	***F***	**p-value**	
Intermediate group						
a	42	34.92	32.59	2.20	0.117	-
**the*	42	41.27	33.58			
**null*	42	20.81	27.83			
Upper-intermediate group						
a	43	31.01^{a}	28.54	23.94	< 0.001	*a* vs. **the* *a* vs. **null* **the* vs. **null*
**the*	43	58.91^{b}	31.57			
**null*	43	10.08^{c}	18.59			
Advanced group						
a	33	43.43^{a}	28.24	20.41	< 0.001	*a* vs. **null* **the* vs. **null*
**the*	33	51.52^{a}	32.37			
**null*	33	5.05^{b}	12.14			

*Note: * denotes article errors*

For comparing between different article choice rates in [-definite, -specific] contexts in each Thai proficiency group, the statistical tests were performed by using one-way ANOVA with repeated measure and Bonferroni approach for pairwise comparison. The results of the statistical comparisons between average scores of *a*, *the,* and *null* use in [-definite, -specific] contexts by each Thai learner group are provided in the table 6.19. The figure 6.13 was produced to give a clear view of the results for their article choice rates of *a* vs. *the* vs. *null* in [-definite, -specific] contexts for each of the different proficiency level groups in percentages.

Figure 6.13 English article choice rates in [-definite, -specific] contexts by each English proficiency level group of the Thai learners



As seen in the figure 6.13, in [-definite, -specific] contexts, all groups had more use rates of *a* correct use (46.03% for intermediate, 54.65% for upper- intermediate, and 67.68% for advanced) than misuse of *the* (19.84% for intermediate, 25.19% for upper- intermediate, and 17.17% for advanced). The upper-intermediate and advance groups showed misuse of *the* (25.19% for upper-intermediate and 17.17% for advanced) than omission of *a* (19.77% for upper- intermediate and 15.15% for advanced) while the intermediates had more omission of *a* (33.73%) than misuse of *the* (19.84%).The results of the statistical analysis by performing ANOVA with repeated measures and Bonferroni approach for multiple comparisons can confirm that all Thai proficiency groups' average percentages of *a* correct use were significantly higher than those of misuse of *the* in [-definite, -specific] contexts. This indicates that all Thai groups did not have problems with English articles in [-definite, -specific] contexts. The statistical results were provided in the table 6.19.

Table 6.19 Each proficiency level group of the Thai learners' use rates of *a* vs. *the* vs. *null* in [-definite, -specific] contexts

Article use	**Use rates of *a* vs. *the* vs. *null***					**Significant difference**
	n	$\overline{X}$	**SD**	***F***	**p-value**	
Intermediate group						
a	42	46.03[a]	18.34	12.47	< 0.001	*a* vs. **the* **the* vs. **null*
**the*	42	19.84[b]	18.49			
**null*	42	33.73[a]	21.93			
Upper-intermediate group						
a	43	54.65[a]	22.22	25.51	< 0.001	*a* vs. **the* *a* vs. **null*
**the*	43	25.19[b]	17.96			
**null*	43	19.77[b]	19.33			
Advanced group						
a	33	67.68[a]	19.96	66.29	< 0.001	*a* vs. **the* *a* vs. **null*
**the*	33	17.17[b]	16.40			
**null*	33	15.15[b]	14.65			

*Note: * denotes article errors*

In the table 6.19, average percentages of article use in each English proficiency group are compared by using one-way ANOVA with repeated measure, followed by Bonferroni approach for pairwise comparison. The results indicate statistically significant difference in the average percentages of different article use in each of the three proficiency groups (p-value < 0.05). It was found in the results that overall, all three groups of the Thai learners had more significantly higher accuracy rates (i.e., correct use of *a)* than error rates, particularly *the* misuse, in their use of articles in [-definite, -specific] contexts, indicating significantly high correct *a* use in these contexts. The results suggest that all Thai proficiency groups seemed to have problems with English article use in this nonconflicting semantic context type at a relatively low level and thus support the prediction related to the research question 2 in this study. However, the statistical results indicate high omission error rates in the lower English proficiency level group, the intermediate group. That is, it was found that the intermediate learners' average percentages of *a* correct use were not significantly different from those of *a* omission. This means in [-definite, -specific] contexts, they had relatively high omission error rates. Part of the reason for the high omission errors in this lower proficiency level group is possible as a result of L1 interference, apart from proficiency, since Thai has no article system, presumably resulting in their English article errors of omission.

Concerning their omission rates, the intermediate group showed high omission error rates particularly in nonconflicting contexts. When taking deep analysis of individual intermediate learners' omission rates, it was found that there were nine out of forty-two intermediates whose scores of *null* use in the nonconflicting semantic contexts were relatively high, that is, the same nine intermediate learners always committed omission errors, as shown in the following.

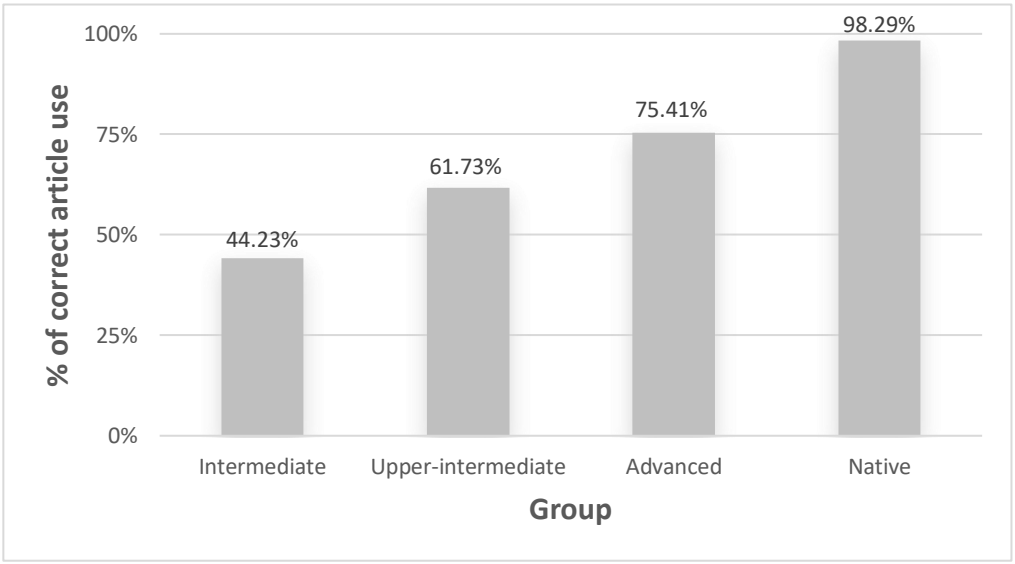
Student	**Individual data on the intermediate learners' article use rates**	
	[+definite,+specific] (25 items)	**[-definite,-specific] (6 items)**
ST2	19	2
ST3	15	3
ST8	12	4
ST16	11	4
ST18	14	3
ST28	12	3
ST30	16	4
ST37	15	3
ST40	13	3

As a result, high omission error rates that were shown in the intermediate group seem to be due to the fact that the same learners in this group frequently omitted English articles.

In terms of the acquisition pattern, considering their article use in the conflicting contexts, the Thai L2 learners had high accuracy rates in [+definite, -specific] contexts, and there was no change in the acquisition pattern across all three proficiency groups (every group had high article accuracy) whereas in [-definite, +specific] contexts, there seemed to be no progress in every proficiency group of the learners' acquisition pattern (all three groups had not very high article accuracy and still showed *the* preference in their article choice). In this sense, it seems that the learners prefer to use *the* in the contexts where there is either a definite or a specific interpretation (i.e., [+definite] or [+specific] contexts) and that they frequently use *a* only in the contexts where there is neither a definite nor a specific interpretation (i.e., [-definite, -specific]). Taking this as a basis, it may be interpreted that their article use pattern seems to be associated with semantic features of definiteness and specificity, as well as with an article preference.

The figure 6.14 shows the results on correct English article (*a* and *the*) choice between different groups of the research participants in percentages. It illustrates accuracy rates in the use of English article between different English proficiency level groups of Thai learners (intermediate, upper-intermediate, and advanced) and the English controls.

Figure 6.14 Correct English article (*a* and *the*) use between different participant groups



The results in the figure 6.14 show that the native controls demonstrated the highest percentage of correct English article use (98.29%). In the different Thai groups, the advanced group (75.41%) could accurately use English article to a higher degree than the upper-intermediate (61.73%) and intermediate (44.23%) groups while the upper-intermediates showed more correct use of English articles than the intermediates. As the results show, there seems to be some improvement in their accuracy in the use of English articles with English proficiency.

The statistical analysis was performed by applying ANOVA with repeated measures and Bonferroni approach for multiple comparisons in order to further compare correct English article (a and the) use between different participant groups. The results were provided in the table 6.20.

Table 6.20 Correct English article (*a* and *the*) use between different participant groups

Group	**Correct use of English articles (*a* and *the*)**					**Significant difference**
	n	$\overline{X}$	***SD***	**F**	**p-value**	
Correct article use						
Thai intermediate learners (Int)	42	44.23[a]	10.26	100.12	< 0.001	Int vs. Upp Int vs. Adv Int vs. NS Upp vs. Adv Upp vs. NS Adv vs. NS
Thai upper-intermediate learners (Upp)	43	61.73[b]	11.85			
Thai advanced learners (Adv)	33	75.41[c]	9.84			
Native speakers (NS)	10	98.29[d]	2.41			

The results of the statistical analysis in the table 6.20 reveal that there were statistically significant differences in their correct use of English articles (*a* and *the*) between different groups. The average percentages of article accuracy in the groups at higher proficiency levels were significantly higher than those in those at lower proficiency levels. This demonstrates the effect of

proficiency on their article performance and can be argued that all Thai proficiency level groups could not set to the definiteness setting of ACP, which is an appropriate ACP setting for English in that all groups' English article accuracy was not in line with that of the English native speakers.

Chapter 7: Conclusion and Discussion

The main aim of the present study was to gain a deeper understanding of what Thai learners of English do with English NPs and articles. In particular, the focus was on the investigation of (re)setting of parameters, the Nominal Mapping Parameter (NMP) and the Article Choice Parameter (ACP), in L2 acquisition and the role of semantic universal features (definiteness and specificity) and an article preference in L2 English article choice by the learners from an article-less L1 background (Thai), having limited levels of L2 input exposure.

With regard to the research question 1, the statistical results from the grammaticality judgement (GJ) data reveal that there was no statistically significant difference between count and mass correct judgement. That is, the Thai participants' accuracy rates as well as error rates in their grammaticality judgement of count nouns were not significantly different from those of mass nouns. Consequently, it can be assumed from the results that noun countability (count and mass) did not appear to impact upon their performance on count-mass grammaticality judgement. The results for the Thai learners' incorrect judgement of English count nouns and mass nouns in the GJ data of the current study are inconsistent with the results in the study of Snape (2006) into Japanese and Spanish learners' knowledge of the L2 English count-mass distinction in that the Japanese and Spanish learners appeared to have more problems with English mass nouns, indicating the countability effect on the learners' performance in differentiating of count and mass nouns in English.

The results also reveal that when comparing between the Thai experiment group's percentages of correct judgement of count nouns and mass nouns with their incorrect judgement, overall, there was a difference between their accuracy rates and their error rates in their judgement of count nouns, of mass nouns, and of count-mass nouns. Their average percentages of correct judgement of count and mass nouns were higher than those of incorrect judgement; the different percentages for both count and mass nouns were approximately fifty percent. This can be evidence that the Thai learners exhibited fairly high ability in making a distinction between English count and mass nouns; nevertheless, the group results indicate that only the advanced learners exhibited native-likeness in such ability. It can be interpreted that the advanced learners could reset the Nominal Mapping Parameter (NMP) to the appropriate setting of the NMP for English while the Thai learners with lower L2 English proficiency could not. The result for the Thai advanced learners was consistent with the results in Snape's (2006) study in that the Japanese participants in his study were found that they succeeded in acquiring the count-mass distinction in L2 English.

Even so, the data from the forced choice elicitation (FCE) task and the production task (PT) show that overall, the Thai learners in all three different proficiency level groups (intermediate, upper-intermediate, and advanced) had a significantly higher level of the use of English articles (*a* and *the*), including correct use and misuse, than omission of them. It can thus be argued that the Thai learners tended to establish the concept of using English articles with NPs in their brain and, as a result, that they were likely to be in the process of the NMP resetting from NPs that lack article system (the NMP setting for Thai) to NPs that can co-occur with articles (the NMP setting for English). However, as mention above, the group results in the GJ data show that only the advanced group exhibited high ability in differentiating of count and mass nouns in English which was in line with that of the native English speakers. Therefore, the results may be interpreted that most of the Thai learners were being in the process of resetting to the NMP setting of English, but only the learners at the advanced levels, indicating target-like ability in distinguishing between English count and mass nouns, demonstrated success in resetting their NMP to the target setting of the NMP. That is, it can be concluded from the results that most Thai learners in this study could not reset the NMP from the Thai setting: [+arg, -pred] to the English setting: [+arg, +pred]. In performing deep analysis of individual learners' performance in the GJ task, individual data reveals that each learner's performance in every group is similar; there was not any same learners of each group who showed remarkably high correct or incorrect judgement. Accordingly, it seems that the group results for each proficiency group of the Thai learners' performance on the GJ task can well reflect each of the proficiency groups' ability in making a count-mass distinction in English NPs. With this in mind, the individual data can affirm the group results that only the advanced group of the Thai learners, neither intermediates nor upper-intermediates, that had as high correct judgement of count and mass nouns as the native controls and, hence, that most Thai learners did not tend to be able to reset the NMP to the appropriate setting of the NMP for English (i.e., whereas the advanced learners seemed to be able to reset to the English NMP, the other two groups with lower English proficiency seemed to be not).

Due to the fact that it was found in the current study that the majority of the Thai participants, who have limited English L2 input exposure levels, except for the advanced learners, seemed to be unable to succeed in acquiring the count-mass distinction in L2 English, it can be assumed that part of the reason for their incapability to reset the NMP to the target setting is possibly because of their limited levels of English L2 input exposure (i.e., their exposure to English was limited primarily to classroom materials and instructions in their English classroom) to a certain extent. On the contrary, L2 learners who have adequate English L2 input exposure levels seem to demonstrate their success in resetting to the target NMP setting as in Snape's (2006) study, the Japanese L2 learners with a much greater level of L2 input exposure (i.e., studying in a university

in the UK for a significant period of time) tended to succeed in resetting their NMP to the English setting. This can suggest the role of input in L2 acquisition. More specifically, based on these findings, it may be argued that there seems to be a critical level of input required to reset the parameter and hence that L2 input exposure appears to play a key role in L2 acquisition of English noun phrases (NPs) or resetting of the NMP in L2 acquisition.

Concerning the research question 2, when comparing between English article misuse rates in the conflicting and nonconflicting semantic contexts, it was found in the FCE and PT data that there were statistically significant differences between the Thai learners' average percentages of English article misuse in the conflicting and nonconflicting contexts. That is, their *a* overuse rates in the conflicting context: [+definite, -specific] were significantly higher than those in the nonconflicting context: [+definite, +specific]. As for *the* overuse, the Thai learners showed a significantly higher rate of this error type in the conflicting context: [-definite, +specific] than in the nonconflicting context: [-definite, -specific]. Even though in the case for definite articles from the PT data, it shows that the Thai learners had more *the* accuracy rates in conflicting contexts than nonconflicting, this phenomenon might be due to the fact that the number of task items in the PT testing the L2 learners' article choice in nonspecific definite contexts was fairly different from that in specific definite contexts. Such a difference, consequently, might be as a result of the remarkable difference in the use of *the* (either better or worse performance with *the*) between the conflicting contexts and the nonconflicting. In this regard, it can be argued from the results shown in the FCE and PT data that the Thai learners seemed to considerably have article use problems with the conflicting semantic contexts. Also, this can be asserted by the overall results in that overall, the results indicate that their error rates of misuse of English articles (*a* and *the*) in the conflicting semantic contexts were significantly higher than those in the nonconflicting contexts. These results suggest that the Thai learners exhibited more English article difficulty in the conflicting semantic contexts than in the nonconflicting contexts. The results are consistent with Pongpairoj's (2008) study of English article acquisition by Thai learners with significant L2 input exposure, in which the Thai participants also showed more *a* overuse rates in [+definite, -specific] than in [+definite, +specific] and more *the* overuse rates in [-definite, +specific] than in [-definite, -specific]. Taking these findings into account, along with the results on English article accuracy for the Thai learners in this study that the learners showed a higher level of accuracy rates in their use of *a* and *the* in the nonconflicting semantic contexts than in the conflicting contexts, the prediction in the present study that Thai learners will have more L2 English article difficulty in the conflicting semantic contexts of articles (i.e., [+definite, -specific] or [-definite, +specific] contexts) than in the nonconflicting ones (i.e., [+definite, +specific] or [-definite, -specific] contexts) can be confirmed. This is because the Thai learners demonstrated a higher level

of English article errors in the former context as well as a higher level of English article accuracy in the latter contexts. Accordingly, the results can provide evidence that support the predictions for article choice by L2 English learners of the Fluctuation Hypothesis (FH) in the sense that L2 English learners without article system in their L1 are predicted that they will show high article accuracy rates in their English article choice with the nonconflicting semantic contexts: [+definite, +specific] and [-definite, -specific], but high article misuse rates with the conflicting contexts: [+definite, -specific] and [-definite, +specific] (Ionin, 2003; Ionin et al., 2004).

Due to the fact that in the PT task, it was found that in [-definite, +specific] contexts, the Thai L2 learners, especially the upper-intermediate group, indicated a significantly greater degree of *the* misuse than correct use of *a*, it can be seen that they appeared to adopt the specificity setting of the Article Choice Parameter (ACP) or make a high level of a specificity distinction in their English article choice in such a context category. Based on these results, it can be argued that the Thai learners' article difficulty was affected by the specificity semantic feature. This can thus provide support for the prediction in this study that the English article errors committed by the Thai learners will have predictable patterns since the results reveal that their article error patterns were affected by the semantic feature of specificity. In addition, taking these findings and the result from elicitation data that the Thai participants showed fluctuation between the definiteness setting and the specificity setting of the ACP in their L2 English article choice in [-definite, +specific] contexts into consideration, it can be concluded that as predicted, the Thai learners demonstrated article difficulty in the conflicting semantic contexts and that their L2 English article choice was affected by definiteness and specificity. This can also provide evidence that supports Ionin et al.'s (2004) claim that the semantic features (definiteness and specificity) play a role in L2 learners' English article use patterns; that is, their L2 English article choice is affected by these semantic universals, and their article error patterns are, thus, non-random. As a result, the results found in elicitation and production data from the Thai participants in this study can be argued that the article errors produced by the Thai learners of L2 English tended to have non-random or predictable patterns.

However, the results in the elicitation and, especially, production data for the Thai L2 learners' English article use in [+definite, -specific] contexts reveal that the learners had a high level of accuracy in *the* use while they made errors of *a* misuse at a somewhat low rate in this conflicting context category. This is not compatible with the predictions for L2 English article choice of the FH in the sense that L2 learners are expected to exhibit a high level of *a* misuse in [+definite, -specific] contexts and with the prediction of this study that the Thai learners will have an article difficulty in their article use in the conflicting contexts (even though this prediction can be supported by the results for [-definite, +specific] contexts). Part of the underlying reason for their

fairly great performance in [+definite, -specific] contexts is probably a consequence of an article preference in their making choices of English articles. To elaborate, an article preference which they had was possibly one of the key factors that resulted in such an observed phenomenon since the Thai learners demonstrated a preference for *the* in their choice of English articles, likely to positively influence the learners' English article choice in the definite contexts to a certain extent.

The L2 learners' preference for *the* seems to be in line with the concept of the default form and overgeneralisation mainly in that the language learners' strategy in relation to overgeneralisation is the utilisation of the default form (Feldman, 2005) in their language acquisition. Different types of default forms were pointed out by Corbett and Fraser (2000), whose work was focused on default genders in various languages. One of them is the 'normal case' default form which is involved in the form that is frequently produced at the highest rate, compared to the other relevant forms. The other kind of default forms is the 'exceptional case' (p.71) default form. It was described by Feldman (2005), whose study was on "Learning and Overgeneralisation Patterns in a Connectionist Model of the German Plural", that in case of the German plural system, the exceptional case default form 'applies to unusual words that cannot be fit into any existing plural class'; this default form type occurs when 'another type of inflection fails' (p.63). According to these explanations for the default form, it may be argued that the Thai learners' preference for *the* tends to be compatible with the notion of the normal case default form, suggested by Corbett and Fraser (2000), for *the* appeared to be the form of English articles that the Thai learners in this study produced to the highest degree when comparing with the other plausible article choice forms (i.e., *a* and *null*). Therefore, the results revealed in the present study can suggest that the Thai learners' article use patterns reflect an article preference in their choice of English articles.

Considering the Thai learners' article use patterns, it can be argued from the PT data that the learners could correctly use *the* in in [+definite, -specific] contexts than in [+definite, +specific] contexts that in case of definite contexts, the Thai learners did not seem to be applying the specificity setting of the ACP, but seemed to be applying a particular article use strategy (i.e., an article preference) to their English article choice. On the contrary, in case of indefinite contexts, it can be concluded that the Thai learners showed fluctuation in their English article choice in [-definite, +specific] contexts, not in [-definite, -specific] contexts because it was found in the results for their English article choice behavior that the learners tended to favour *a* use in the contexts with [-specific] over in the contexts with [+specific]. Therefore, taking these findings into account, it seems that the FH cannot fully explain the Thai learners' article use patterns as the FH does not describe the differences in the settings for definites versus indefinites. Nevertheless, this parametric approach can be used to explain the Thai learners' article choice in indefinite contexts as they tended to fluctuate between the definiteness and specificity settings of the ACP in their

English article choice in [-definite, +specific] contexts, not in [-definite, -specific] contexts; , consistent with the proposal of the FH. However, for definite contexts, it seems that the Thai learners were significantly applying a particular strategy of article use: an article preference (i.e., their preference for *the* when choosing English articles) as an alternative to parametric approach to their English article choice mainly in that, for example, they indicated high accuracy rates of definite English articles both in conflicting and nonconflicting contexts; in case of *a* overuse in definite contexts, the result reveals that they committed this error type in [+definite, -specific] contexts more than [+definite, +specific], suggesting that the Thai learners were making a specificity distinction in their choice of English articles and, thus, that the specificity feature is still a factor that plays a role in their English article acquisition, combining with their preference for *the* that make specificity less influential a predictor than in [-definite, +specific] contexts. Accordingly, it may be concluded that apart from the role of UG semantic features of definiteness and specificity (the parametric approach), proposed by the FH, an article preference (*the* preference) tends to play a key role in the Thai learners' article use patterns.

As for the research question 3, the results from the FCE data show that overall (in [+definite] and [-definite] contexts), the Thai learners appeared to exhibit correct English article use rates at a higher level when comparing with their English article misuse and omission rates. However, such a relatively high performance on English article use by the Thai learners might, to some extent, result from a certain strategy of using English articles which they probably rely on when choosing English articles. Because it was found that the Thai participants indicated *the* use rates to a significantly greater degree than *a* use rates both in their English article accuracy and errors, they tended to have an article preference (i.e., a preference for *the*). In this respect, an article preference was likely to have the effect on their English article choice to a certain extent. In other words, it may be said that the Thai learners' English article choice may be influenced at least in part by an article preference; their preference for *the* might lead them to use *the* at a great deal. This then possibly gives rise to a high level of correct use of *the* in their English article choice, as found in the results on the Thai learners' English article choice rates, for instance, in [+definite, -specific] contexts.

In [+definite, -specific] contexts, the results both in the FCE and PT task show that the Thai L2 learners had a high level of correct use of *the*. They could accurately employ *the* at a higher rate in these contexts, compared to their *a* misuse and *the* omission rates. This means that they tended to show fluctuation between the definiteness and specificity settings of the ACP in this conflicting context type at a low level. The results seemed not rather in line with the claim under the FH and the ACP (Ionin et al., 2004) that L2 learners with no direct L1 transfer will fluctuate between the two possible settings of the ACP in their English article choice in the conflicting contexts. To a

certain extent, as previously discussed, the observed article phenomenon in [+definite, -specific] contexts among the Thai learners in this study might be a result of an article preference which they had since the Thai learners in this study were found that they tended to exhibit a preference for *the* in their choice of English articles, presumably having a positive influence on their article choice in these contexts. From these results, it may be argued that the predictions for English article choice by L2 learners, proposed by Ionin et al., does not seem to be able to fully explain article choice patterns of the Thai L2 learners of English with limited L2 input exposure.

Regarding the Thai learners' article choice rates in [-definite, +specific] contexts, the statistical results for the Thai learners in the FCE task as well as the group results of the statistical analysis in the elicitation and production data from the Thai intermediate and advanced learners reveal that there was no statistically significant difference between the Thai participants' accuracy rates in *a* use and their error rates of *the* misuse in [-definite, +specific] contexts. These results can be interpreted that they fluctuated between the two settings of the ACP in this semantic context type. That is, sometimes, they followed the definiteness setting, but sometimes, they followed the specificity setting and thus made a specificity distinction in their English article use, which leaded to occasionally substituting *the* for *a* in [-definite, +specific] contexts. Based on the ACP and the FH by Ionin (2003) and Ionin et al. (2004), it is predicted that English L2 learners with article-less L1 should go through fluctuation stage and committed article substitution errors in [+definite, -specific] and [-definite, +specific] contexts (i.e., *a* misuse in the former and *the* misuse in the latter). Accordingly, the result for the Thai learners' fluctuation found in their English article use in [-definite, +specific] contexts can provide evidence that supports Ionin's and Ionin et al.'s predictions concerning English L2 article choice.

In addition to the Thai learners' English article use with [-definite, +specific] contexts, the results for the Thai learners in the PT task and the group results in elicitation and production data from the Thai upper-intermediate learners reveal that their average scores of *the* misuse were significantly higher than those of correct *a* use in these contexts. This means that they were likely to adopt the specificity setting of the ACP when choosing English articles in such a context type. That is, they showed the specificity article use pattern as they seemed to make use of a specificity distinction in their English article choice in [-definite, +specific] contexts to a significantly grate degree. Based on the fluctuation and specificity patterns, indicated in their article use with [-definite, +specific] contexts, it may be concluded that the Thai learners tended to have a significantly high level of article difficulty in using the indefinite article (*a*) in the conflicting semantic contexts and that their L2 English article choice was affected by the semantic universal features of definiteness and specificity. The results can support the claim by Lardiere (2004) in case of greater learner difficulty in using *a* that the indefinite article in English (*a*) seems to be

more complicated to use than the English definite article (*the*). That is, to use the indefinite article *a*, we need to take account of the countability and number of nouns, but to use the definite article *the*, we do not have to do so since *the* can be used with both mass and count nouns as well as both singular and plural nouns whereas *a* can be applied to singular count nouns only (Lardiere, 2004). The results can also support the arguments by Zdorenko and Paradis (2008) in case of the role of UG that L2 acquisition is influenced by UG access and thus particularly by Ionin et al. (2004) that article choice in L2 English is affected by the semantic universals (definiteness and specificity) and, hence, not random. Moreover, the results can hence support the predictions in this study that the article errors produced by L1 Thai learners of L2 English will have non-random or predictable patterns, that Thai leaners will fluctuate between the definiteness and specificity ACP settings in their L2 English article choice, and that they will have English article difficulty in the conflicting semantic contexts.

The FCE and PT results also show that in the nonconflicting semantic contexts the Thai learners demonstrated a high degree of correct use of English articles—they had significantly higher article accuracy rates when comparing to the error rates. That is, they indicated high accuracy in their English article choice in the contexts without a conflict between the definiteness and specificity features whilst they appeared to experience article difficulty in the conflicting semantic contexts. Taking account of these findings, it can be evidence that L2 English article choice is influenced by the semantic features (definiteness and specificity). Thus, the Thai learners' English article choice patterns seemed to be relatively consistent with the predictions of the FH (Ionin, 2003 and Ionin et al., 2004). Based on the results, it can be argued that L2 English article difficulty, for instance, the fluctuation or specificity patterns found in the Thai participants with low levels of L2 input exposure in the current study seems to be the L2 learners' problems with the syntax-semantics/pragmatics interface (i.e., mapping semantic universal features concerning English article choice: definiteness and specificity onto the article form: *a* and *the*) rather than just a purely syntactic problem. In other words, considering the results, it may be said that problems with English articles the L2 learners experience are likely to result from the learner lacking knowledge involved in mapping definiteness and specificity onto the appropriate forms of articles: *a* and *the*, that is, of the syntax-semantics/pragmatics interface rather than just from lacking knowledge of syntax. This supports Snape's (2006) claim that the fluctuation in L2 English learners' article use is because of the learners lacking knowledge about the syntax-pragmatic interface and Ionin et al.'s (2008) claim that the fluctuation is a consequence of 'the subtlety of discourse-based triggers' for article choice.

With reference to article errors in the PT task, in contrast to the FCE task, the results of the statistical analysis in the nonconflicting semantic contexts reveal that in [+definite, +specific]

contexts, the Thai learners committed *the* omission to a significantly greater degree when comparing with their overuse of *a*. The similar result was also found in the statistical comparisons on their English article choice error rates in the contexts targeting *the* in the PT data. The learners had a significantly higher level of *the* omission than misuse of *a* in [+definite] contexts. Additionally, for [-definite, -specific] contexts, although there was no statistically significant difference between the Thai learners' *the* misuse rates and *a* omission rates, they still made the latter error type at a higher percentage than the former. Considering these results, it can be concluded that the Thai learners appeared to produce English article omission errors at a relatively high level in the PT task. Part of the reason for significant omission error rates in the PT task may be due to the task type. In performing the PT task, used for obtaining more naturalistic data on the Thai L2 learners' English article use, the learners were instructed to write English sentences by using word prompts given in each task item. Producing English sentences might increase their opportunity of omitting English articles when the learners conduct the naturalistic task: PT, rather than when they just selected an article from a set of options provided them in the FCE task items. Under those circumstances, more article omission errors were hence found in the PT than FCE. It is also possible that they might want to lower a chance of wrongly choosing a English article when writing the PT task responses and then decide that they had better not use any articles when they were unsure about the articles, resulting in rather high omission rates in the PT. In addition, the result from the PT data, compared to the FCE data, that they omitted articles more in the PT task than the FCE task can efficiently reflect the Thai learners' mental grammar; that is, high omission errors in the PT task may reflect their L1 interference in that no articles exist in their L1, causing them to make article omission errors.

In connection with the group results on English article accuracy, compared between different participant groups, the statistical results show that there were statistically significant differences between Thai intermediate, upper-intermediate, and advanced groups as well as the English controls. This means that the results for the different proficiency level groups of the Thai learners reveal that more proficient learners had significantly higher English article accuracy rates than the less proficient learners; that is, their English article accuracy increased in accordance with their English proficiency levels, indicating the effect of proficiency level on English article choice by L2 learners, consistent with the results in previous studies, for instance, by Atay (2010), Ionin et al. (2008b), and Kako (2006). More importantly, the results also reveal that when comparing each Thai proficiency group with the English native speakers, there were not any Thai proficiency groups which exhibited accuracy rates in English article choice at the native level. The results can be interpreted that all proficiency groups of the limited input/exposure Thai learners could not succeed in acquiring the L2 English article system, that is, setting the ACP to the appropriate

setting for English (i.e., definiteness). Hence, the results that with limited L2 input exposure, the Thai learners could not set the parameter to the appropriate ACP setting for the target setting can be provide support for the role of input in setting a parameter in L2 acquisition and for the FH.

In summary, overall, the results in the elicitation and production data can be evidence that the Thai learner article choice was impacted by the semantic features: definiteness and specificity. This is mainly because in the conflicting semantic contexts (i.e., [-definite, +specific] contexts), the results in elicitation data reveal that they showed fluctuation between the definiteness setting and the specificity setting of the ACP in their English article use, and the results in production data reveal that they indicated the specificity article use patterns in their English article choice. Apart from the role of the semantic universals, it seems likely that the Thai learners' English article choice was also affected by an article preference. This is because they demonstrated a preference for *the* in their English article use, and such a preference tended to have some impact on their English article accuracy and errors. The results also indicate that L2 English article use in the contexts without a conflict between the two semantic features (definiteness and specificity) caused a lower level of article difficulty for the Thai learners than using English articles in the conflicting contexts. This can thus support the predictions related to L2 learners' English article choice by Ionin (2003) and Ionin et al. (2004). Also, it can provide support for the prediction in this study that Thai learners will not experience difficulty with L2 English article use in the nonconflicting semantic contexts. Therefore, from these results, it can be concluded that the article errors produced by the Thai learners in the current study had non-random or predictable patterns, and they exhibited fluctuation between the definiteness and specificity ACP settings as well as the specificity patterns in their L2 English article choice with [-definite, +specific] contexts.

In response to the research question 4.1, in the FCE task, it was found that in the nonconflicting semantic contexts, the learners showed more accuracy in their use of *the* than *a.* More importantly, the results of the statistical analysis for comparing between the Thai L2 learners' accuracy rates in their article use between *a* and *the* reveal that their average percentages of correct use of *the* were significantly higher than those of *a* in overall and conflicting semantic contexts. These results can be interpreted that the Thai learners had more article difficulty in their use of L2 English indefinite articles (*a*) than definite articles (*the*) in that they had remarkably higher accuracy rates in their use of *the* than *a.* This can thus support the prediction in the current study that Thai learners of L2 English will more correctly employ 'the' in [+definite] contexts than 'a' in [-definite] contexts. Furthermore, the results are consistent with earlier research, for example, by Lu (2001) and Zdorenko and Paradis (2008), who also found that L2 learners performed better in the use of *the* than *a*.

Additionally, the PT result that the Thai L2 learners had a considerably high degree of problem with using of *a* whereas did not with using of *the* in the conflicting semantic contexts and the results for overall contexts in the FCE and PT tasks that the Thai learners' average percentages of correct use of *the* were significantly higher than those of *a* can suggest that the learners had more difficulty in acquiring the indefinite article in English (*a*) than the definite article (*the*). Also, the results can provide support for the claim by Lardiere (2004), as previously mentioned, that an indefinite article in English (*a*) seems to be more complicated to use than an English definite article (*the*) and for the prediction in this study that Thai learners of L2 English will more correctly employ 'the' in [+definite] contexts than 'a' in [-definite] contexts.

In terms of the research question 4.2, the results of the statistical analysis on the participants' average percentages of *a* misuse and *the* misuse in the FCE and PT tasks reveal that there were statistically significant differences between their misuse of *a* and *the* in almost all context types. That is, the Thai learners' average percentages of *the* overuse were significantly higher than those of *a* overuse; that is, they made more errors of *the* overuse than *a* overuse. Taking these results into consideration, along with the results on the Thai learners' correct use of *a* vs. *the*, it can be interpreted that the Thai learners indicated an article preference in their English article use. More precisely, the learners tended to prefer *the* to *a* in their choice of English articles. This is because the results reveal that the learners more frequently used *the* than *a* in that they demonstrated a higher degree of correct use of *the* and, at the same time, misuse of *the* when comparing to *a* correct use and misuse rates. Such a higher level of their correct use and overuse of *the* than those of *a* in their English article use can reflect their preference for *the* when making choice of English articles and therefore can provide evidence that supports the prediction in the present study that Thai L2 learners will have an article preference (i.e., prefer *the* to *a*) in their English article use. Regarding the underlying reason for the Thai learners' greater use or misuse of *the* in their English article choice, it may be argued that an article preference (i.e., a preference for *the*) might function as their specific strategy of using an English article.

With respect to *a* and *the* omission error rates, the results in the elicitation and production data indicate that the Thai learners demonstrated a relatively high degree of difference between *a* and *the* omission error rates in the conflicting semantic contexts. That is, they had a significantly greater rate of *a* omission errors than *the* omission errors in these contexts. It can be assumed from these results that the Thai learners preferred *the* to *a* in their English article use, resulting in a lower level of *the* omission errors. Thus, these findings can also provide support for the prediction in the current study regarding the Thai learners' article preference in their choice of English articles.

In brief, from the results for the Thai learners' correct use of *a* vs. *the,* it can be concluded that there was a difference between their accuracy in the use of *the* and *a*. The learners had more problems with *a* use than *the* use. Based on the results for the Thai participants' correct use and their misuse of *a* vs. *the* as well as the results for their omission of *a* vs. *the,* to address the research question 4.2, it can be concluded that Thai learners had an article preference (a preference for *the*) in their choice of L2 English articles and may be assumed from the results that an article preference is likely to be a factor which plays a role in L2 English article choice since it seems to be the key factor affecting the Thai learners' greater use, misuse, or omission of one article than another in the present research.

In conclusion, the data from the Thai learners with limited input exposure in this study indicate the role of input in language acquisition mainly in that it can be seen from the results that L2 input exposure has an influence upon parameter setting or resetting in L2 acquisition. More specifically, the results in this study show that most of the Thai participants, who had limited levels of English L2 input exposure, except for the Thai advanced learners, tended to be incapable to reset the NMP to the target setting and that all English proficiency groups did not succeed in setting the ACP to the appropriate setting for English, for the performance of the Thai learners of English L2 with limited L2 input exposure in this study was not compatible with that of the native controls. Part of the reason why they did not succeed in the NMP resetting and the ACP setting may be due to the learners' limited English L2 input exposure. However, in term of the NMP resetting, even though the majority of the Thai learners could not reset to the English NMP setting, the advanced learners showed native-like ability in their performance on the GJ. It can be assumed from the results that the learners with high English proficiency level can reset their NMP to the English setting of the NMP. This can indicate the proficiency level effect on parameter resetting in L2 acquisition. Taking these findings into account, it may be argued that parameter setting tends to be a harder learner task than parameter resetting because when compared to the NMP resetting, in which the advanced Thai learners achieved success, there were not any proficiency groups of the Thai learners in the current study that exhibited native-like ability in choosing English articles, suggesting their incapability to set the ACP to the target setting. Furthermore, it can be also seen from the results for the limited input/exposure Thai learners in the current study and for the Thai learners with greater L2 input exposure in earlier studies of L2 English article acquisition (e.g., Pongpairoj, 2008; Winward, 2012) regarding parameter setting that neither of the learners with low nor high levels of input exposure indicated their capability to set the ACP to the appropriate setting for English since the results reveal that the learners, even those with significant L2 input exposure, showed difficulties in using English articles. This can, accordingly, suggest that setting of the parameter seemed to be the L2 learners' complicated

learning task. Besides, as previously mentioned, it was found in this study that most of the Thai learners with limited L2 input were not capable of resetting the NMP to the English setting, but in Snape's (2006) study, for instance, the Japanese learners of L2 English with significant L2 input exposure showed their success in the NMP resetting to the setting for English. This can demonstrate the impact of L2 input exposure on parameter resetting in L2 acquisition. That is, based on these findings, it may be argued that there seems to be a critical level of input required to reset the parameter and hence that L2 input exposure appears to play a key role in L2 acquisition of English noun phrases (NPs) or resetting of the NMP in L2 acquisition.

Additionally, it can be interpreted from the results in the present research that the UG-supplied semantic features (definiteness and specificity) and an article preference which the L2 learners have appear to play a role in L2 English article choice. This is because while the results show that the Thai learners had problems with English article choice in the contexts with a conflict between the two semantic features, they also reveal that the learners demonstrated a preference for *the* in their choice of English articles. Such a preference presumably functions as their specific strategy for the use of English articles (i.e., the strategy of overgeneralisation of *the* in their English article use) and brings about relatively high accuracy in their use of *the* in [+definite] contexts, even in the conflicting semantic category of [+definite, -specific]. These findings can indicate the effect of the semantic universal features as well as an article preference on learner article choice. It may thus be argued that English article choice by L2 learners with limited L2 input exposure (e.g., the Thai learners in this study) is not fully UG-regulated but seems to be also affected by a non-UG-related article use strategy, for example, an article preference, found in the Thai learner article choice. Moreover, as Slabakova (2016) points out, article-less L2 learners' learning task in their English article acquisition is mapping the semantic feature (in)definiteness onto its form (*the* or *a*). To illustrate, in the form-meaning mappings, the L2 learner will perform mapping of the semantic features onto the appropriate forms (*a* and *the*). In terms of the concept of the syntax-semantics/pragmatics interface, article-less L2 learners' English article difficulty is argued that it is associated with the learners having a problem with the syntax-semantics/pragmatics interface, that is, mismatches of form and meaning of the English articles at the syntax-semantics/pragmatics interface (i.e., at the point of contact between the English article form and meaning). If this is the case, it may be assumed that the Thai L2 learners in this study experienced difficulties in performing the form-meaning mappings; their article difficulty indicated a problem at the syntax-semantics/pragmatics interface. However, the findings in this study that they had difficulty with L2 English article use, particularly in the contexts where the semantic features: definiteness and specificity are in conflict to a significantly high degree. This is likely to indicate a feature choice issue, rather than an interface issue that the Thai learners tended to have English

article problems with deciding which semantic feature (definiteness and specificity) is realised in English article system.

In respect of the developmental stages the Thai learners go through, the results from the PT task shown in this study that the upper-intermediate and advanced learners demonstrated a significantly higher percentage of *the* correct use than *a* correct use while the intermediate group did not. It can be assumed from these results concerning the developmental stages of English article acquisition the different proficiency groups of Thai learners go through that the Thai intermediate learners will go through the fluctuation stage as they were found in the result that they could correctly use *a* and *the* at the same rate, suggesting that they have not realised that English articles mark definiteness, not specificity. The L2 learners with upper-intermediate English proficiency level, then, seem to go through the stage of fluctuation, along with the application of the specific article use strategy of an article preference to their English article choices when considering the result that they improved their u*se of the*, but not *a*. They tend to still have difficulty with determining definiteness or specificity is marked in English article system but are likely to be aware of the less complicated usage of *the* than *a*, so they possibly use *the* as a default form when they were uncertain about their use of English articles, resulting in more *the* accuracy rates than *a* accuracy rates and then improvement on their use of *the* in this stage of English article acquisition. As for the Thai advanced learners, the result reveals that they tended to improve their u*se* of both *the* and *a*. Therefore, it may be assumed that Thai advanced learners have fairly sufficient L2 input to be, to some extent, aware of the definiteness semantic feature being marked in English article system. Thus, they exhibit improvement in their use of *the* and *a* in this stage. Even so, they still tend to have *the* preference since it was found in the results that they could correctly use *the* more than *a.* As can be seen, it seems that the Thai learners' ability in English article choice improves with the proficiency but is still not in line with the native controls, confirmed by the result from elicitation data that all Thai proficiency learner groups did not show native-like performance on their choice of English articles. This suggests that the Thai learners, even the advanced group, who seems to be in the stage of being setting the ACP to the appropriate value for English article system (the definiteness setting), did not succeed in setting of the ACP to the target value.

Appendices

Appendix A The count-mass grammaticality judgement (GJ) task

Task 1

Instruction:

Determine whether the sentences provided in each item below are possible or not in English.

1. Put a mark (✓) in the box next to each sentence which is a **possible** sentence of English.
2. - For each sentence which is **not possible** in English, put a mark (✗) in the box beside it, **and**
   - Then identify where it is **wrong** in each sentence by **underlining** "**the incorrect words or error**" of the sentence.

***Please **do not change your first answers** after you put a mark (✓ or ✗) in the boxes.

For examples:

(A.) *He has black hair.* ☑

(B.) *He has going home.* ☒

1. They did not need much milk. ☐
2. He needed some butter. ☐
3. I have many paper. ☐
4. We have some fruits. ☐
5. Tom corrected his spelling. ☐
6. His teacher corrected him assignment. ☐
7. Peter expected some heat. ☐
8. Bob expected many cash. ☐
9. Jimmy took few tickets. ☐
10. Laura took many tests. ☐
11. John needed some waters. ☐

12. Ken did not need much butters. ☐
13. Andrea likes study English. ☐
14. Nancy likes playing tennis. ☐
15. Annie saw some information. ☐
16. She did not see much bicycle. ☐
17. She bought many roses. ☐
18. Nancy bought some books. ☐
19. We often expect few sunshine. ☐
20. They do not expect much money. ☐
21. Jack is now in badly health. ☐
22. He is now listening to famously songs. ☐
23. Jane saw few dog. ☐
24. I saw many car. ☐
25. I have doing my job. ☐
26. They have not done their work. ☐
27. Tony bought some shirts. ☐
28. She did not buy much glasses. ☐
29. Sharron does not like much sweets. ☐
30. Andrea wants some cookies. ☐
31. I do not live with my parents. ☐
32. We do not live in our own house. ☐
33. She needed few rices. ☐
34. Jane needed many milks. ☐

☺*End of this Task*☺

Appendix B The forced choice elicitation (FCE) task and the production task (PT)

7.1 The forced choice elicitation (FCE) task

Task 2

Instruction:

Choose **one** of the options provided in parentheses (**a**(n), **the**, —) which you decide is the best one to be inserted in each item. Circle the option which you choose in each item.

***Please **do not change your first answers** after you choose the option (a/an), (the), or (—).

***The option (—) means "no article to be inserted".

For examples:

(A.) *Bom told Jane that Phuket was his favourite place and said, "I love (a, (the), —) sky there."*

(B.) *Tim told Ken that he wanted to go to Tops Supermarket. Ken asked Tim what he wanted to buy there. Tim answered, "I need to buy (a, the, (—)) cheese."*

1. A customer told a clerk in a "Lost and found", "I am looking for (a, the, —) green scarf. I think that I lost it here last week."

2. Bob went to a children's library. He wanted to get something to read, but he does not know what himself, so he asked a librarian to suggest him and said that he liked all sorts of things that move—cars, trains. Then he said, "I know! I would like to get (a, the, —) book about airplanes! I like to read about flying!"

3. Sarah and Mary saw a landscape painting, and they agreed that it was beautiful. Then Sarah said, "I want to meet (an, the, —) author of that painting; unfortunately, I have no idea who it is because the painting is not signed."

4. At the end of a chess tournament, Laura asked Betsy to leave, but Betsy said, "First, I need to talk to (a, the, —) winner of this tournament—she is my good friend, so I want to congratulate her!"

5. Today is Sunday. Tom asked Barbara what she would do. Then Barbara seemed not to decide what she would do and said, "Maybe, I will write (a, the, —) letter to my grandmother."

6. Gary heard that Melissa just started college. He asked her how she liked it. Melissa answered that her classes was very interesting, and said, "Today I'm having dinner with (a, the, —) girl from my class—her name is Angela, and she is really nice!"

7. Rose asked Alex to go out to dinner tonight and suggested Alex to ask Samuel, his brother, to join, but Samuel could not. Alex said, "Samuel is having dinner with (a, the, —) manager of his office; I don't know who that is, but I'm sure that Samuel can't cancel this dinner."

8. Mathilda could not contact Lewis, who went to San Francisco for this weekend, so she asked Lewis's roommate, Sam, how to reach Lewis there. Sam answered, "He is staying with (a, the, —) mother of his best friend—I'm afraid I don't know who she is, and I don't have her phone number."

9. Kathy told Elise that her daughter, Jeannie, loved that new comic strip about Super Mouse, so Elise told her, "Tomorrow, I'm having lunch with (a, the, —) creator of this comic strip—he is an old friend of mine. So I can get his autograph for Jeannie!"

10. Roberta met William by chance on a street in Boston. Roberta asked William what he was doing there. William answered, "I am visiting (a, the, —) friend from college—his name is Sam Brown, and he lives in Cambridge now."

11. Gertrude told Richard that his cousin, Claudia, was in Washington, D.C. this week. Richard asked Gertrude what Claudia was doing there. Gertrude answered that she was doing some interviews for her newspaper and said, "She is interviewing (a, the, —) politician; I don't know who, exactly. I'll find out when I read her article!"

12. A raccoon suddenly disappeared three days ago. It seems that somebody stole it because its cage was broken. Children asked a staff member of the zoo how the affair had developed. Then the staff member said, "The police are trying to find (a, the, —) suspect for stealing this raccoon—but they still don't know who he is."

13. Bill was looking for Erik. Rick knew that Erik was on the phone. So Rick told Bill, "Erik is talking to (an, the, —) owner of his company! I don't know who that person is—but I know that this conversation is important to Erik."

14. Last Saturday, Judy did not go anywhere because it was raining. Samantha asked Judy what she did on last Saturday. Judy answered, "First, I cleaned my apartment. Then I ate lunch. And then I read (a, the, —) book."

15. A student was new in a school. She wanted to get to know her classmates, so she was going to be at the school party tonight. She told her teacher, "I am hoping to find (a, the, —) new good friend! I don't like being all alone."

16. A client wanted to sell her old jewelry. She was on the phone to a jeweler of Roberson's Jewelry. She said, "I would like to sell you (a, the, —) beautiful silver necklace. It is very valuable—it has been in my family for 100 years!"

17. John's family moved to Bangkok. Bangkok is a convenient city, but the company John works for is a bit far from Bangkok. He told his wife that he was having some difficulties with his bus journey to work, and said, "I want to buy (a, the, —) small car. I think it's more convenient to drive to work."

18. Mary's mother told Mary that she baked a chocolate cake, a cheese cake, and a fruit cake and asked Mary which one she wanted to eat. Mary said, "I want to eat (a, the, —) chocolate cake."

19. Mary asked John who Laura had married. He just heard this news as a rumor, so he didn't know much about it. So he answered, "Laura married (a, the, —) principal of Rojana School. I don't remember who that is."

20. Chris saw Jane by chance. Jane looked so happy. Chris asked her what happened. Jane answered, "I saw (a, the, —) player of Buriram United Football Team—he is a famous midfielder."

21. After a women's running race, a reporter asked a guard to let her in. She said, "I need to talk to (a, the, —) winner of this race; I don't know who she is, so can you please help me?"

22. Jim is about to go outside. He told his wife that he did not need dinner tonight since he would have dinner outside. She asked him who the person he is having dinner with is. He said, "I am having dinner with (a, the, —) director of my department—Tony."

23. Amy was waiting for someone in a restaurant. She asked a waiter to come back in about twenty minutes and said, "I am waiting. I am planning to eat with (a, the, —) colleague from work. She will be here soon."

24. Rachel went to a bookstore yesterday. She told Vicky that she got lots of things—several magazines, two red pens, and an interesting new book, and said "I really liked (a, the, —) book."

25. At a university, Professor Clark was looking for Professor Anne Peterson, but she was having office hours. Professor Clark asked her secretary what Professor Anne Peterson was doing. Her secretary told Professor Clark, "She is meeting with (a, the, —) student, but I don't know who it is."

26. Monica's flight will arrive at the airport at 9:00. Mary came to the airport to meet Monica. Since Monica's hair is red, Mary thought she could find Monica immediately. However, the airport was so crowded that she could not find Monica. Then Mary asked a staff member at the airport for some help. Mary said, "I am trying to find (a, the, —) red-haired girl; her flight arrived at 9:00."

27. Laura gave a book which she liked to Eric on his birthday. He told her that he really liked it. Then she said, "I would like to meet (an, the, —) author of that book someday; I saw an interview with her on TV, and I really like her!"

28. A customer bought some meat from a store, but it was completely spoiled, so she was very angry. Then she told a sales clerk, "I want to talk to (an, the, —) owner of this store; I don't know who he is, but I want to see him right now!"

29. Sarah took her granddaughter, Becky, for a walk in a park yesterday. Sarah told Claudia that Becky saw one little girl and two little boys in the park, and said, "Becky is a little shy. But finally, she talked to (a, the, —) girl."

30. In a clothing store, a customer rummaged through every stall, without any success. So she told a clerk, "I am looking for (a, the, —) warm hat. It's getting rather cold outside."

31. Mike and Jack's mother said that the dinner was ready. Mike immediately came down to the table. But Jack did not come out of his own room. Mike said to his mother, "Jack had dinner with (a, the, —) colleague; he didn't tell me who it is."

32. Mary asked Roger about his son's birthday last week how it was. Roger answered that he got lots of gifts—books, toys. Then he said, "And best of all—he got (a, the, —) puppy!"

33. Chris needed to find Jonathan, who went to New York, so she asked Jonathan's roommate, Clara, in what part of New York he was staying. Clara did not really know. She answered, "He is staying with (a, the, —) friend, but he didn't tell me who that is. He didn't leave me any phone number or address."

34. Mary and Chris bought some books at a book store. He asked her to go out together soon. Then she asked him to wait for a minute, and said, "I want to talk to (an, the, —) owner of this bookstore—she is my old friend."

35. Robin went to a video store last night. He told Alice that he got two videos—a German film and a video game. Then he said, "After that, I came home and watched (a, the, —) film."

36. Susan had a trip to New York. Susan told Tom she went to many museums, and ate in lots of wonderful restaurants. And she said, "I also visited many friends. And I saw (a, the, —) play."

37. Rob needed to talk to Christina, so he called her. But Christina could not talk to him because she was busy at her office. She said, "I am meeting with (a, the, —) student from my English class; he needs help with his homework, and it's important."

38. Smith and Clark are police officers. Clark asked Smith about Miss Sarah Andrews, a famous lawyer who was murdered several weeks ago. Smith answered, "We are trying to find (a, the, —) murderer of Miss Andrews—his name is Roger Williams, and he is a well-known criminal."

39. Sheila was so busy that she had no time for lunch because she had an important meeting. She told Paul, "I am meeting with (a, the, —) president of our university, Dr. McKinley."

40. Andrew met Nora by chance in Chicago. Andrew asked Nora what she was doing there. Nora answered, "I am visiting (a, the, —) father of my fiancé—he is really nice, and he is paying for our wedding!"

☺End of this Task☺

7.2 The production task (PT)

Task 3

Instruction:

1. Tell the story, to which you have just listened, by writing the story in the blank spaces below and **using "all the word prompts provided in square brackets [ ]" in each item** to produce English sentences in your written storytelling.

   ***Please **do not change the order of the word prompts** in each item.

   ***Do not** make any changes of the word prompts, **except if** the word prompts are "**verbs**". In this case, you may appropriately change their **tenses**.

2. Apart from the word prompts provided in the brackets [ ], to produce suitable English sentences for your storytelling, you may **also have to insert or use some other words** such as

   - "**articles**" (i.e., "***a***", "***an***", or "***the***"),
   - "**prepositions**" (e.g., "***to***", "***in***", "***of***", "***for***" and so on),
   - "**conjunctions**" (e.g., "***and***", "***but***", "***or***" and so on),
   - "**verbs**" (e.g., "***is/are/was/were/been***", "***says/say/said***", "***likes/like/liked***" and so on)

3. **In front of the word prompts, whose part of speech is "nouns"**,

   - **do not** use the words: "***her***", "***his***", "***their***", "***our***", "***my***" "***your***", and "***its***",
   - **do not** use the words: "***this***", "***that***", ***these***", and "***those***", and
   - **do not** use "**numbers**" such as "*1", "2", "3" or "one*", "***two***", "***three***" and so on,

   except if these words **have already appeared** in front of the **"noun"** word prompts.

Example of how to do the task:

(noun) (verb) (noun) (noun) (noun)

(A.) [*teacher* / *tell* / *story* (เรื่อง/เรื่องราว) / *students* / *her class*] A teacher told a story to the students in her class.

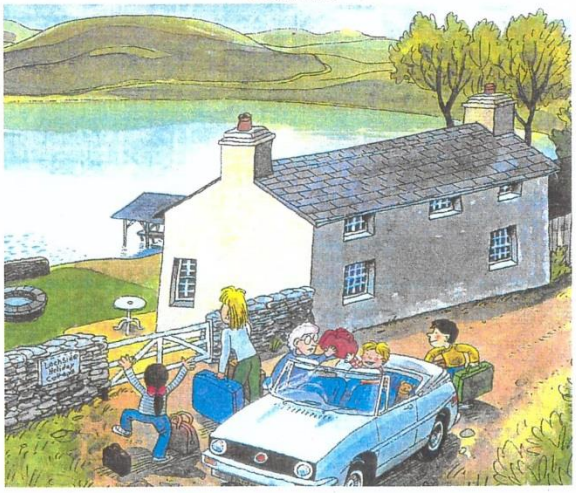
(noun) (verb) (noun)

(B.) **She said,** ["*class* (ห้องหรือชั้นเรียน) / *has* (มี) / twenty students"] She said, "the class has twenty students."

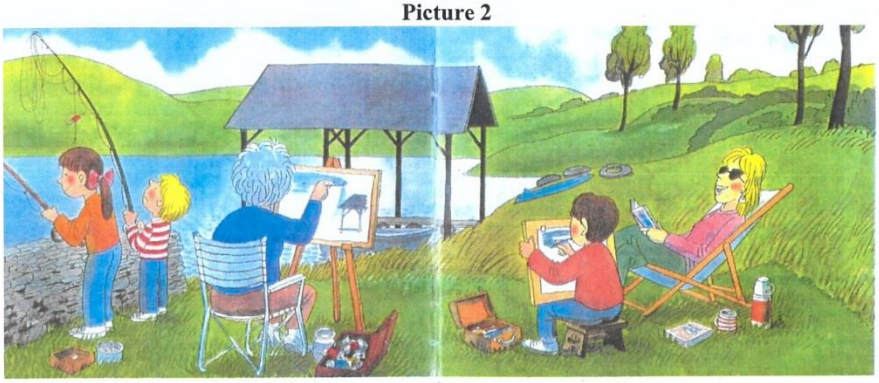
Appendix B

Loch Ness

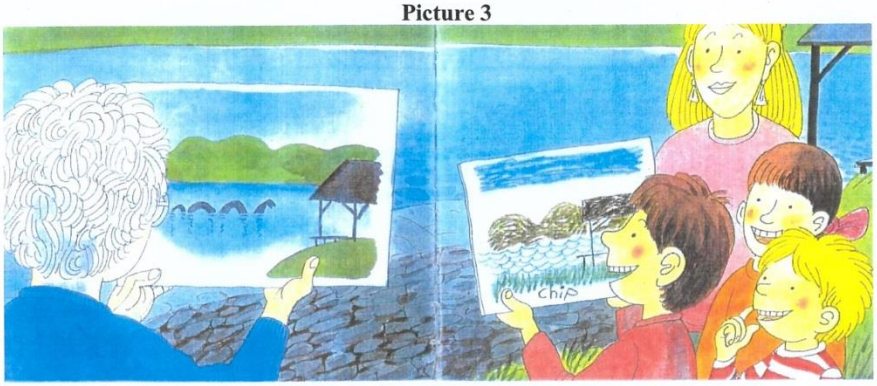
Picture 1



Picture 2



Picture 3



Remember that in your English written storytelling, **…**

- **do not** use the words: "***her***", "***his***", "***their***", "***our***", "***my***" "***your***", and "***its***",
- **do not** use the words: "***this***", "***that***", ***these***", and "***those***", and
- **do not** use "**numbers**" such as "***1***", "***2***", "***3***" *or* "***one***", "***two***", "***three***" and so on

in front of the word prompts, whose part of speech is "nouns", except if these words have already appeared in front of the **"noun"** word prompts.

Loch Ness

(1.) [*story* (เรื่อง/เรื่องราว) / *family*] _____

_____

_____.

(2.) [*family* / *there are* (มี) / five people / *three children* (เด็กสามคน) / *girl and two boys* / *mother of these children* / *grandmother* (ยาย)] _____

_____

_____.

(3.) **One day,** [*family* / *talk about* (คุยกันเกี่ยวกับ) / holiday (วันหยุด)] _____

_____

_____.

(4.) [*grandmother* / *like* (ชอบ) / *Scotland*] _____

_____

_____.

(5.) **And** [*girl said* (บอกว่า) / **"***I* / *want* / *go to* / *lake in Scotland* (ทะเลสาบในสก็อตแลนด์)**"**]

_____

_____,

but I have no idea where to go." Then they decided to go on holiday in Scotland.

Appendix B

Remember that in your English written storytelling, …

- **do not** use the words: "***her***", "***his***", "***their***", "***our***", "***my***" "***your***", and "***its***",
- **do not** use the words: "***this***", "***that***", ***these***", and "***those***", and
- **do not** use "**numbers**" such as "*1", "2", "3" or "one*", "***two***", "***three***" and so on

in front of the word prompts, whose part of speech is "nouns", except if these words have already appeared in front of the **"noun"** word prompts.

(6.) [*They / plan* (วางแผน) / *go to / lake in the Highlands of Scotland*] _____

_____

_____.

(7.) [*lake* (ทะเลสาบ) / *call* (มีชื่อว่า) / *Loch Ness*] _____

_____

_____.

(8.) [*girl / happy with* (พอใจกับ) / *plan* (แผนไปเที่ยวในวันหยุด)] _____

_____

_____.

(9.) **So when** [*she / meet* (พบ/เจอ) / *boy from her class* (เด็กผู้ชายที่เป็นเพื่อนร่วมชั้นของเธอ), *Alex / her close friend*] _____

_____

_____,

(10.) [*she / talk about / holiday plan* (แผนไปเที่ยวในวันหยุด) / him] _____

_____

_____.

Remember that in your English written storytelling, ...

- **do not** use the words: "***her***", "***his***", "***their***", "***our***", "***my***" "***your***", and "***its***",
- **do not** use the words: "***this***", "***that***", ***these***", and "***those***", and
- **do not** use "**numbers**" such as "*1*", "*2*", "*3*" or "***one***", "***two***", "***three***" and so on

in front of the word prompts, whose part of speech is "nouns", except if these words have already appeared in front of the **"noun"** word prompts.

(11.) [*children* / *glad* (ดีใจ) / *mother said* / ***"I*** / *looking for* (หา) / *accommodation* (ที่พัก) / *next to* (ที่อยู่ใกล้กับ) / *lake* (ทะเลสาบ)***"***] _____

_____

_____. **But I haven't found any yet."**

(12.) **Later,** [*mother said* / ***"I*** / book (จอง/เช่า) / *cottage* (บ้านพัก) / *for* / *holiday"*] _____

_____

_____,"

(13.) **and she said,** [***"****cottage* (บ้านพัก) / *right by* (อยู่ติดหรือใกล้กับ) / *lake* (ทะเลสาบ)***"***]

_____

_____."

Remember that in your English written storytelling, …

- **do not** use the words: "***her***", "***his***", "***their***", "***our***", "***my***" "***your***", and "***its***",
- **do not** use the words: "***this***", "***that***", ***these***", and "***those***", and
- **do not** use "**numbers**" such as "*1", "2", "3" or "**one**", "**two**", "**three**" and so on

in front of the word prompts, whose part of speech is "nouns", except if these words have already appeared as part of the **"noun"** word prompts.

(14.) **At Loch Ness,** [*family* /doing / different activities (กิจกรรมต่างๆ)] _____

_____

_____.

(15.) *[mother* / reading / *book* (หนังสือ)] _____

_____

_____.

(16.) [*She* (แม่) / really *like* (ชอบมากๆ) / *book* (หนังสือ)] _____

_____

_____.

(17.) **She** (แม่) **said,** [**"** *I / would like / meet* (พบ/เจอ) */ author of this book* (ผู้แต่งหนังสือเล่มนี้)**"**]

_____

_____

_____**. But I do not know who it is."**

(18.) [*girl / younger boy* (เด็กผู้ชายที่อายุน้อยกว่า) / *fishing* (ตกปลา)] _____

_____

_____**. They looked very happy.**

Remember that in your English written storytelling, …

- **do not** use the words: "***her***", "***his***", "***their***", "***our***", "***my***" "***your***", and "***its***",
- **do not** use the words: "***this***", "***that***", ***these***", and "***those***", and
- **do not** use "**numbers**" such as "*1*", *"2", "3" or "**one***", "***two***", "***three***" and so on

in front of the word prompts, whose part of speech is "nouns", except if these words have already appeared in front of the **"noun"** word prompts.

(19.) [*elder boy* (เด็กผู้ชายที่อายุมากกว่า) / drawing (วาดรูป) / *picture*] _____

_____

_____.

(20.) **Similarly,** [*grandmother*/ painting (วาดรูป) / *picture of the Loch Ness Monster* (รูปสัตว์ประหลาดแห่งทะเลสาบล็อคเนส)] _____

_____

_____.

(21.) [*monster* (สัตว์ประหลาด) / *not real* (ไม่มีอยู่จริง) / *but* / *famous in Scotland*] _____

_____

_____**. They all enjoyed their holiday very much.**

(22.) **They said,** [**"***we* / *never forget* (จะไม่มีวันลืม) / *trip to Loch Ness* (การไปเที่ยวทะเลสาบล็อคเนส)**"**] _____

_____

_____**. It was really fantastic!"**

☺*End of this Task*☺

List of References

Abdulsata, P. (2000) *An Error Analysis of Srinakharinwirot University Second-Year English Major Student's Compositions*. MA thesis. Srinakharinwirot University**.**

Atay, Z. (2010) *Second Language Acquisition of the English Article System by Turkish Learners: the Role of Semantic Notions*. MA thesis. Middle East Technical University.

Bitchener, J., Young, S., and Cameron, D. (2005) 'The effect of different types of corrective feedback on ESL student writing', *Journal of Second Language Writing*, 14, pp. 191-205.

Birdsong, D. (1989) *Metalinguistic performance and interlanguage competence*. New York: Springer.

Bley-Vroman, R. (1990) 'The logical problem of foreign language learning', *Linguistic Analysis*, 20, pp. 3-49.

Bley-Vroman, R., Felix, S. and Ioup, G. (1988) 'The Accessibility of Universal Grammar in Adult Language Learning', *Second Language Research*, 4, pp. 1-32.

Braidi, S. M. (1999) *The acquisition of second-language syntax*. London: Arnold.

Brinton, L. J. (2000). *The structure of modern English: a linguistic introduction*. Amsterdam: John Benjamins Publishing Company.

Brychta, A. (2003) *Oxford Reading Tree: Stage 5: More Storybooks: A Monster Mistake: Pack A*. Oxford: Oxford University Press.

Butler, Y. G. (2002) 'Second Language Learners' Theories on the Use of English Article: An Analysis of the Metalinguistic Knowledge Used by Japanese Students in Acquiring the English Article System', *Studies in Second Language Acquisition*, 24 (3), pp. 451-480.

Celce-Murcia, M. and Larsen-Freeman, D. (1999) *The grammar book: An ESL/EFL teacher's course*. 2nd ed. Boston: Heinle & Heinle.

Chaudron, C. (2003) 'Data Collection in SLA Research', in Doughty, C. and Long, M. (eds), *The Handbook of Second Language Acquisition*, Oxford: Blackwell.

Chen, H. C. (2000) 'Error analysis of some features of English article usage', *Journal of Wu-Feng Applied Linguistics*, 8, pp. 282-296.

References

Chierchia, G. (1998) 'Reference to Kinds across Langauge', *Natural Language Semantics*, 6, pp. 339-405.

Chomsky, N. (2007) 'Approaching UG From Below', in Sauerland, U. and Gartner, H. M. (eds.), *Interfaces+Recursion=Language?*, New York: Mouton de Gruyter.

Chomsky, N. (2001) 'Derivation by phase', in Kenstowicz, M. (ed.), *Ken Hale: A Life in Language*. Cambridge: MIT Press.

Chomsky, N. (1995) *The Minimalist Program*. Cambridge: MIT Press.

Chomsky, N. (1986) *Knowledge of language: Its nature, origin and use*. New York: Praeger.

Chomsky, N. (1981) *Lectures on Government and Binding.* Dordrecht: Foris.

Chomsky, N. (1975) *Reflections on language*. New York: Pantheon Books.

Cohen, D. and Crabtree, B. (2008) Qualitative Research Guidelines Project. July 2006. *Triangulation*. [Online]. [Accessed 2 May 2016]. Available from: http://www.qualres.org/HomeTria-3692.html

Cook, V. J. and Newson, M. (2007) *Chomsky's Universal Grammar: An Introduction*. 3rd ed. Oxford: Blackwell Publishing.

Corbett, G. G. and Fraser, N. (2000) 'Default Genders', in Unterbeck, B. and Rissanen, M. (eds), *Gender in Grammar and Cognition*, Berlin: Mouton de Gruyter.

Crosthwaite, P. (2016) 'L2 English article use by L1 Speakers of article-less languages: A Learner Corpus', *International Journal of Learner Corpus Research*, 2 (1), pp. 68-100.

Denzin, N. K. (1978) *Sociological Methods*. New York: McGraw-Hill.

Ellis, R. (2004) 'The Definition and Measurement of L2 Explicit Knowledge', *Language Learning*, 54, pp. 227-275.

Ellis, R. (1991) 'Grammaticality Judgments and Second Language Acquisition', *Studies in Second Language Acquisition*, 13, pp. 161-186.

Epstein, S., Flynn, S. and Martohardjono, G. (1996) 'Second language acquisition: theoretical issues in contemporary research', *Behavioural and Brain Sciences*, 19, pp. 677-758.

Finer, D. and Broselow, E. (1986) 'Second language acquisition of reflexive-binding', in Berman, S. J., Choe, W. and McDonough, J. (eds), *Proceedings of NELS 16*, Massachusetts: Graduate Linguistics Students Association.

Fodor, J. and Sag, I. (1982) 'Referential and quantificational indefinites', *Linguistics and Philosophy*, 5, pp. 355-398.

Feldman, N. (2005) *Learning and Overgeneralisation Patterns in a Connectionist Model of the German Plural*. PhD thesis. Wien University.

Gass, S. M. and Mackey, A. (2007a) *Data Elicitation for Second and Foreign Language Research*. London: Lawrence Erlbaum Associates, Inc.

Gass, S. M. and Mackey, A. (2007b) 'Input, Interaction, and Output in Second Language Acquisition', in VanPatten, B. and Williams, J. (eds), *Theories in Second Language Acquisition: An Introduction*, London: Lawrence Erlbaum Associates, Publishers.

Gass, S. M. (1994) 'The reliability of second-language grammaticality judgments', in Tarone, E., Gass, S. M. and Cohen, A. (eds), *Research methodology in second language acquisition*, Hillsdale, NJ: Lawrence Erlbaum.

Graddol, D. (1997) *The future of English*. London: The British Council.

Gutierrez, X. (2013) 'The Construct Validity of Grammaticality Judgment Tests As Measures of Implicit and Explicit Knowledge', *Studies in Second Language Acquisition*, 35, pp. 423-449.

Hawkins, J. (1978) *Definiteness and Indefiniteness*. London: Croom Helm.

Hawkins, R., Al-Eid, S., Almahboob, I., Athanasopoulos, P., Chaengchenkit, R., Hu, J., Rezai, M., Jaensch, Carol., Jeon, Y., Jiang, A., Leung, Y.-K.I., Matsunaga, K., Ortega, M., Sarko, G., Snape, N. and Velasco-Zárate, K. (2006) 'Accounting for English article interpretation by L2 speakers', in Foster-Cohen, S.H., Medved Krajnovic, M. and Mihaljevi´c Djigunovi´c, J. (eds), *EUROSLA Yearbook*, Amsterdam: John Benjamins.

Hawkins, R. and Chan, C. Y. H. (1997) 'The partial availability of Universal Grammar in second language acquisition: the 'failed functional features hypothesis', *Second Language Research*, 13, pp. 187-226.

Heim, I. (1991) 'Articles and Definiteness', in Stechow, A. V., Wunderlich, D. (eds), *Semantics: An International Handbook of Contemporary Research*, Berlin: De Gruyter.

References

Huang, C.-T. J. and Roberts, I. (2017) 'Principles and parameters of Universal Grammar', in Roberts, I. (ed), *The Oxford Handbook of Universal Grammar*, Oxford: Oxford University Press.

Hunt, R. (2003) *Oxford Reading Tree: Stage 5: More Storybooks: A Monster Mistake: Pack A*. Oxford: Oxford University Press.

Ionin, T. (2006) 'This is definitely specific: Specificity and definiteness in article system', *Natural Language Semantics*, 14, pp. 175-234.

Ionin, T. (2003) *Article Semantics in Second Language Acquisition*. PhD thesis. MIT.

Ionin, T. and Wexler, K. (2003) 'The Certain Uses of *the* in L2-English', in Liceras, J. M., Zobl, H. and Goodluck, H. (eds), *The Proceedings of the 6th Generative Approaches to Second Language Acquisition Conference*, Somerville, MA: Cascadilla Press.

Ionin, T., Ko, H. and Wexler, K. (2008a) 'The role of semantic features in the acquisition of English articles by Russian and Korean speakers', in Liceras, J., Zobl, H. and Goodluck, H. (eds), *The role of formal features in second language acquisition*, London: Routledge.

Ionin, T., Ko, H. and Wexler, K. (2004) 'Article semantics in L2 acquisition: The role of specificity', *Language Acquisition*, 12, pp. 3-69.

Ionin, T., Zubizarreta, M. L. and Maldonado, S. B. (2008b) 'Sources of linguistic knowledge in the second language acquisition of English articles', *Lingua*, 118 (4), pp. 554-576.

Ionin, T., Zubizarreta, M.L. and Philippov, V. (2009) 'Acquisition of article semantics by child and adult L2-English learners', *Bilingualism: Language and Cognition,* 12 (3), pp. 337-361.

Jian, S. (2013) 'An Empirical Research of Chinese Learners' Acquisition of the English Article System- Based on Syntactic Misanalysis Account', *English Language Teaching*, 6 (4), pp. 56-63.

Jin, J. (2003) 'Acquisition of L2 English DP by Korean Children', *Reading Working Papers in Linguistics*, 7, pp. 77-102.

Johnson, J. S., Shenkman, K. D., Newport, E. L. and Medin, D. L. (1996) 'Indeterminacy in the grammar of adult language learners', *Journal of Memory and Language*, 35, pp. 335-352.

Kaku, K. (2006) 'Second Language Learners' Use of English Articles: A Case Study of Native Speakers of Japanese', *Ottawa Papers in Linguistics*, 34, pp. 63-74.

Kim, K. and Lakshmanan, U. (2009) 'The Processing Role of the Article Choice Parameter', in Mayo, M. P. and Hawkins, R. (eds), *Second Langauge Acquisition of Articles: Empirical Findings and Theoritical Implications*, Amsterdam: John Benjamin Publishing.

Kim, K. and Lakshmanan, U. (2008) 'L2 article semantics and second language processing', *Proceedings of the 9th Generative Approaches to Second Language Acquisition Conference (GASLA)*. Somerville, MA: Cascadilla Proceedings Project, pp. 103-117.

Ko, H., Ionin, T. and Wexler, K. (2010) 'The role of presuppositionality in the second language acquisition of English articles', *Linguistic inquiry,* 41 (2), pp. 213-254.

Ko, H., Ionin, T. and Wexler, K. (2009) 'L2 acquisition of English articles by Korean speakers', in Lee, C. H., Simpson, G. B. and Kim, Y. (eds), *The handbooks of East Asian Psycholinguistic*, Cambridge: Cambridge University Press.

Ko, H., Ionin, T. and Wexler, K. (2006) 'Adult L2-learners lack the maximality presupposition, too', in Deen, K. U., Nomura, J., Schulz, B. and Schwartz, B. D. (eds), *The Proceedings of the Inaugural Conference on Generative Approaches to Language Acquisition–North America, Honolulu, HI*, Storrs, CT: University of Connecticut Occasional Papers in Linguistics.

Ko, H., Perovic, A., Ionin, T. and Wexler, K. (2008) 'Semantic universals and variation in L2 article choice', *Proceedings of the 9th Generative Approaches to Second Language Acquisition Conference (GASLA 9)*. Somerville, MA: Cascadilla Proceedings Project, pp. 118-129.

Laisatrukrai, A. (1999) *Nature and Methods of Translation.* Bangkok: Ramkhamhaeng University Press.

Lardiere, D. (2004) 'Knowledge of definiteness despite variable article omission', in Brugos, A., Micciulla, L. and Smith, C.E. (eds), *BUCLD 28 Proceedings*, Somerville: Cascadilla Press.

Lee, E. (2012) *Transfer at the Lexical Level in Korean Learners' L2 Indefinite Article Use in English*. PhD thesis. Michigan State University.

Leow, R. (1997) 'Attention, awareness and foreign language behaviour', *Language Learning*, 47, pp. 467-505.

Loewen, S. (2009) 'Grammaticality Judgment Tests and the Measurement of Implicit and Explicit L2 Knowledge', in Ellis, R., Loewen, S., Elder, C., Erlam, R., Philp, J. and Reinders, H. (eds), *Implicit and Explicit Knowledge in Second Language Learning, Testing and Teaching*, Bristol: Multilingual Matters.

References

Lu, C. F. (2001) 'The acquisition of English articles by Chinese learners', *Second Language Studies,* 20 (1), pp. 43-78.

Luksaneeyanawin, S. (2005) *Syntax*. Japan: Waseda University Digital Campus Consortium.

Lyons, C. (1999) *Definiteness*. Cambridge: Cambridge University Press.

Mackey, A. and Gass, S. M. (2005) *Second Language Research: Methodology and Design*. New Jersey: Lawrence Erlbaum Associates.

Mandell, P. B. (1999) 'On the reliability of grammaticality judgement tests in second language acquisition research', *Second Language Research*, 15 (1), pp. 73-99.

Master, P. (1997) 'The English article system: Acquisition, function, and pedagogy', *System*, 30, pp. 331-348.

Miyamoto, Y. and Yamada, K. (2011) *Fluctuation in the Grammar of Japanese Child EFL Learners.* Paris: Workshop on Language with and without Articles.

Momenzade, M., Youhanaee, M. and Kassaian, Z. (2014) 'Article choice by Persian EFL learners: Evidence against the Fluctuation Hypothesis?', *International Journal of Research Studies in Language Learning,* 3 (2), pp. 29-42.

Montrul, S. (2009) 'Re-examing the Fundamental Difference Hypothesis: What can early bilinguals tell us?', *Studies in Second Language Acquisition,* 31 (2), pp. 225-257.

Munoz, C. (2014) 'Contrasting effects of starting age and input on the oral performance of foreign language learners', *Applied Linguistics,* 35 (4), pp. 463-482.

NIETS (2009) The National Institute of Educational Testing Service (Public Organization) Thailand. May 2009. *The National Institute of Educational Testing Service.* [Online]. [Accessed 1 June 2016]. Available from: http://www.niets.or.th

Noojan, K. (1999) *An Analysis of Errors in English Abstract of Srinakharinwirot University Graduate Students*. MA thesis. Srinakharinwirot University.

Ortega, L. (1999) 'Planning and Focus on Form in L2 Oral Performance', *Studies in Second Language Acquisition*, 21, pp. 109-148.

Patton, M. Q. (1999) 'Enhancing the Quality and Credibility of Qualitative Analysis', *HSR: Health Services Research*, 34 (5), pp. 1189-1208.

Pilar, M., Mayo, G. and Soler, E. A. (2013) 'Negotiated input and output', in Herschensohn, J. and Yonug-Scholten, M. (eds), *The Cambridge handbook of second language acquisition*, Cambridge: Cambridge University Press.

Piriyawiboon, N. (2010) *Classifiers and determiner-less languages: The case of Thai*. PhD thesis. University of Toronto.

Pongpairoj, N. (2008) *Variability in Second Language Article Production: A Comparison of L1 Thai and L1 French Learners of L2 English*. PhD thesis. University of York.

Reid, J., Battaglia, P., Schuldt, M., Narita, E., Mochizuki, M. and Snape, N. (2006) *The article choice of learners of English as a second language*. Unpublished term paper. University of Essex.

Roberts, C. (2003) 'Uniqueness in definite noun phrases', *Lingustics and Philosophy*, 26, pp. 287-350.

Rule, S. J. (2001) *A Cross-sectional Study of French Interlanguage Development in an Instructional Setting*. PhD thesis. University of Southampton.

Saleemi, A. P. (1992)*Universal Grammar and language learnability*. Cambridge: Cambridge University Press.

Sarko G. (2008) 'Morphophonological or syntactic transfer in the acquisition of English articles by L1 speakers of Syrian Arabic?', *Proceedings of the 9th Generative Approaches to Second Language Acquisition Conference (GASLA 9)*. Somerville, MA: Cascadilla Proceedings Project, pp. 206-217.

Sattayatham, A. and Honsa, S. (2007) 'Medical Students' Most Frequent Errors at Mahidol University', *The Asian EFL Journal Quarterly*, 9, pp. 170-194.

Saville-Troike, M. (2012) *Introducing Second Language Acquisition.* 2nd ed. Cambridge: Cambridge University Press.

Saville-Troike, M. (2006) *Introducing Second Language Acquisition.* Cambridge: Cambridge University Press.

Schwartz, B. D. and Sprouse, R. (1994) 'Word order and nominative case in non-native language acquisition: a longitudinal study of L1 Turkish German interlanguage', in Hoekstra, T. and Schwartz, B. D. (eds), *Language Acquisition Studies in generative grammar*, Amsterdam: John Benjamins.

Sinclair, J. M. (1991) *Corpus, Concordance, Collocation.* Oxford: Oxford University Press.

References

Singnoi, U. (2008) 'Noun Classifier Constructions inThai: A Case Study in Construction Grammar', *MANUSYA: Journal of Humanities*, 1, pp. 76-90.

Slabakova, R. (2016) *Second Language Acquisition*. Oxford: Oxford University Press.

Smyth, D. (2002) *Thai: An Essential Grammar*. London: Routledge.

Snape, N. (2006) *The Acquisition of the English Determiner Phrase by Japanese and Spanish Learners of English.* PhD thesis. University of Essex.

Snape, N., Leung, I.-K. and Ting, H.-C. (2006) 'Comparing Chinese, Japanese and Spanish speakers in L2 English article acquisition: evidence against the fluctuation hypothesis?', in Grantham O'Brien, M., Shea, C. and Archibald, J. (eds), *Proceedings of the 8th Generative Approaches to Second Language Acquisition Conference (GASLA 2006)*, Somerville: Cascadilla Proceedings Project.

Swan, M. and Smith, B. (2001) *Learner English: Teacher's Guide to Interference and Other Problems*. Cambridge: Cambridge University Press.

Tabatabaei, O. and Dehghani, M. (2012) 'Assessing the reliability of grammaticality judgment tests', *Procedia Social and Behavioral Sciences*, 31, pp. 173–182.

Taesungnoen, P. (2012) 'Articles Used by English and Communication Freshmen and Seniors at the Faculty of Liberal Arts, Ubon Ratchathani University', *Journal of Liberal Arts, Ubon Ratchathani University*, 8 (2), pp. 119-143.

Tan, M. (2005) 'Authentic Language or Language errors', *ELT Journal*, 59, pp. 126-134.

Thailand Ordinary National Educational Test (2015) Thailand-Ordinary National Educational Test: National Institute of Educational Testing Service-Public Organisation. October 2015. *Thailand-Ordinary National Educational Test*. [Online]. [Accessed 1 June 2016]. Available from: http://www.uis.unesco.org/nada/en/index.php/catalogue/172/export

Thonglor, K. (2002) *Principles of Thai*. Bangkok: Ruamsarn.

Ting, H. C. (2005) *The acquisition of article in L2 English by L1 Chinese and L1 Japanese speakers*. MA thesis. University of Essex.

Trademan, J. (2002) *The acquisition of the English article system by native speakers of Spanish and Japanese: a cross-linguistic comparison*. PhD thesis. University of New Mexico.

Trenkic, D. (2009) 'Accounting for patterns of article omissions and substitutions in second language production', in Mayo, M. P. G. and Hawkins, R. (eds.), *Second language acquisition of articles: Empirical findings and theoretical implications*, Amsterdam: John Benjamins Publishing.

Trenkic, D. (2008) 'The representation of English articles in second language grammars: Determiners or adjectives?', *Bilingualism: Language and Cognition*, 11 (1), pp. 1-18.

Vainikka, A. and Young-Scholten, M. (1998) 'The initial state in the L2 acquisition of phrase structure', in Flynn, S., Martohardjono, G. and O'Neil, W. (eds.), *The Generative Study of Second Language Acquisition*, New Jersey: Erlbaum.

Vainikka, A. and Young-Scholten, M. (1994) *The early stages in adult L2 syntax: additional evidence from Romance speaker*. MS.

Wesche, M. B. (1994) 'Input and interaction in second language acquisition', in Gallaway, C. and Richards, B. J. (eds), *Input and interaction in language acquisition*, Cambridge: Cambridge University Press.

White, B. (2009) 'Accounting for L2 English Learners' Article Choices', *MSU Working Papers in SLS*, 1, pp. 14-37.

White, L. (2008) 'Different? Yes. Fundamentally? No. Definiteness Effects in the L2 English of Mandarin Speakers', *Proceedings of the 9th Generative Approaches to Second Language Acquisition Conference (GASLA 9)*. Somerville, MA: Cascadilla Proceedings Project, pp. 251-261.

White, L. (2003) 'Fossilisation in steady state L2 grammars: Persistent problems with inflectional morphology', *Bilingualism: Language and Cognition*, 6, pp. 129-141.

White, L. (1989) *Universal Grammar and Second Language Acquisition.* Amsterdam: John Benjamins Publishing Company.

Winward, J. (2012) 'The Role of Semantic and Pragmatic Factors in Article Production by Advanced Thai Learners', *Linguistics Journal,* 6 (1), pp. 104-126.

Wiriyachitra, A. (2002) 'English Language Teaching and Learning in Thailand in this Decade', *Thai TESOL Focus*, 15 (1), pp. 4-9.

Yang, M. and Ionin, T. (2009) 'L2 English articles and the computation of uniqueness', *Proceedings of the 3rd Conference on Generative Approaches to Language Acquisition North America (GALANA)*. Somerville, MA: Cascadilla Proceedings Project, pp. 325-335.

References

Yates, W. G. and Tryon, A. (1970) *Thai: Basic Course Volume 1*. Washington: Foreign Service Institute.

Yoshii, R. and Milne, A. (1998) 'DaRT: A CALL System to Help Students Practice and Develop Reasoning Skills in Choosing English Articles', *Calico Journal*, 16 (2), pp. 121-156.

Zdorenko, T. and Paradis, J. (2008) 'The acquisition of articles in child second language English: fluctuation,transfer or both?', *Second Language Research,* 24 (2), pp. 227-25.