The Acquisition of Definite and Indefinite Articles in English by L1 Speakers of Saudi Arabic

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Dedication

To my late father

To my mother

To my wife

To my daughters, Aljuwharah and Hussah

Acknowledgement

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Abstract

This thesis investigates L2 acquisition within the framework of Principles and Parameters (Chomsky, 1981) and the Minimalist program (Chomsky, 1995). Specifically, it investigates the L2 acquisition of definite and indefinite articles in English by Saudi Arabic L1 speakers in light of the Article Choice Parameter (ACP) and the associated Fluctuation Hypothesis (Ionin, 2003; Ionin, Ko and Wexler, 2004), and in light of the Feature Reassembly Hypothesis (Lardiere, 2008, 2009a, 2009b) and Slabakova's (2009) associated proposal for a cline of difficulty in feature reassembly. These two approaches assume Full Transfer and Full Access in SLA (Schwartz and Sprouse, 1994; 1996). A comparison is made between the two opposing approaches to SLA and a new descriptive explanation for the widely observed inability of adult L2 learners to achieve target-like performance presented.

Results from a forced-choice elicitation test and written translation test show that the acquisition of the definite article *the* is less difficult than the acquisition of the articles *a* and *null*. Further, the L2 acquisition of the article *a* is less difficult than the acquisition of the article *null*. Finally, the acquisition of the article *null* used with indefinite plural NPs is less difficult than the acquisition of the article *null* used with indefinite mass NPs. These findings cannot be explained within a parameter resetting approach to L2 acquisition where the SA-speaking L2 learners' predicted task in the L2 acquisition of definiteness in English is regarded as transferring the definiteness setting of the ACP from SA to the L2 interlanguage (Ionin, 2003; Ionin et al., 2004; Ionin, Maldonado and Zubizarreta, 2008). On the other hand, it appears that these findings are consistent with the Feature Reassembly Hypothesis (Lardiere, 2008, 2009a, 2009b) and partially consistent with Slabakova's (2009) proposal. Thus, a feature reassembly-based explanation for L2 acquisition is proposed where it shows, first, that L2 acquisition which involves just mapping is less difficult than that which involves mapping and reassembly. Second, this feature reassembly-based explanation reveals that the nature of the phonological realisation of a morpheme that represents a feature also plays a role in determining the level of difficulty in Slabakova's proposal (i.e., the role of detectability of the target item). Third, this explanation suggests that mapping (Full Transfer) and feature reassembly (Full Access) take place at the same time. Finally, the feature reassembly-based explanation shows that the detectability of supporting evidence related to the target item also plays a role in determining the level of difficulty in L2 acquisition.

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Abbreviations

A+M	a+mass noun
ACC	Accusative
ACP	Article Choice Parameter
Ad	Advanced
ADJ	Adjective
ART	Article
CE	Chinese-English
COND	Conditional
CP	complementizer Phrase
D	Determiner
DEF	Definite
DEM	Demonstratives
DP	Determiner Phrase
EC	English-Chinese
EK	English-Korean
EXIST	Existential
F	Feature
FCET	Forced-Choice Elicitation Test
FH	Fluctuation Hypothesis
FRH	Feature Reassembly Hypothesis
FT/FA	Full Transfer/Full Access
GEN	Genitive
IDM	Indefinite Mass
IDP	Indefinite Plural
IDS	Indefinite Singular

IMPER	Imperative
J	Japanese participant
JC	Japanese-Chinese
KE	Korean-English
L1	First Language
L2	Second Language
L2A	Second Language Acquisition
LB	Lower Beginner
LE	Lower Elementary
LLI	Lower Lower Intermediate
M	Mean
MP	Measure Noun Phrase
n	number
NOM	Nominative
NP	Noun Phrase
NS	Native speaker
O	object
OQPT	Oxford Quick Placement Test
PL	Plural
PM	Pluralized Mass nouns
POSS	Possessive
PRES	Present Tense
PROG	Progressive
Q	Question
S	Subject
SA	Saudi Arabic
SG	Singular

SLA	Second Language Acquisition
TOREL	Test of Russian as a foreign language
UB	Upper Beginner
UE	Upper Elementary
UG	Universal Grammar
UI	Upper Intermediate
ULI	Upper Lower Intermediat e
uNV	uninterpretable Non-Veridical
V	Verb
v	veridical
WTT	Written Translation Test

Chapter 1

Introduction

1.1.   Introduction

The aim of this thesis is to investigate second language acquisition (SLA) in the domains of morphosyntax and semantics in the framework of Principles and Parameters (Chomsky, 1981) as well as the framework of Minimalism (Chomsky, 1995). In particular, the aim of this thesis is to investigate the SLA of definite and indefinite articles in English by Saudi Arabic L1 speakers in the light of two different approaches; parameter (re)setting and feature reassembly. The parameter (re)setting approach is represented through the Fluctuation Hypothesis (FH), which proposes the Article Choice Parameter (ACP; Ionin, 2003; Ionin, Ko and Wexler, 2004), while the feature reassembly approach is represented through the Feature Reassembly Hypothesis (FRH; Lardiere, 2008, 2009a, 2009b). Another aim of this thesis is to investigate the mechanism of SLA from the perspective of the FRH as well as to examine Slabakova's (2009) proposal on the level of difficulty in L2 acquisition of grammatical features.

The goals of the current thesis are to investigate the following: First, whether the notion of Full Transfer in the framework of parameter resetting to L2 acquisition will be able to account for the SA-English acquisition of definiteness (Ionin, 2003; Ionin et al., 2004; Ionin, Maldonado and Zubizarreta, 2008). Based on the ACP, English and SA select the definiteness setting. Consequently, the SA-speaking L2 learners of English are predicted to transfer the L1 setting to the L2 interlanguage in the acquisition of articles. Secondly, this thesis examines the role of similarity on the morphological and semantic levels between the target item and its closest equivalent in the L1 in SLA (Lardiere, 2008, 2009a, 2009b; Slabakova, 2009). According to the FRH, the SA-speaking L2 learners of English are predicted to find the acquisition of the definite article *the* less difficult than the acquisition of the indefinite articles *a* and *null*. This assumption is due to the higher level of similarity on the morphological and semantic levels between the definite articles compared to the indefinite articles in English and SA. Thirdly, this thesis investigates the effect of the detectability of the target item, being overt or null, on SLA (Lardiere, 2009a). Taking into account that, in English, the article *a* is

overt while the article *null* is a null (Abney, 1987; Lyons, 1999; Radford, 2005), it is predicted in this study that the SA-speaking L2 learners of English will find the acquisition of the article *a* less difficult than the acquisition of the article *null*. Finally, this thesis examines the effect of the detectability of supporting evidence related to the target item in SLA. Although, in English, mass nouns differ from singular nouns on the semantic level, it appears that they are alike on the morphological level. That is to say, from the feature-based viewpoint, singular nouns include the features [+count [-plural]] while mass nouns include the feature [-count]. On the other hand, mass nouns are not morphologically distinct from singular nouns, contrary to plural nouns which are morphologically distinguished through the presence of the plural-marking morpheme '-s'. Therefore, this thesis will examine the effect of the absence of supporting evidence related to the target item in the L2 acquisition of article *null* used with indefinite mass NPs. In order to conduct this study, SA-speaking L2 learners of English from different proficiency groups; beginner, elementary, lower intermediate, upper intermediate and advanced will take a forced-choice elicitation test and written translation test.

The significance of the current study arises from its goal of comparing two opposing approaches to L2 acquisition; parameter (re)setting, which is represented through the FH (Ionin, 2003; Ionin et al. 2004, 2008), and feature reassembly, which is represented through the FRH (Lardiere, 2008, 2009a, 2009b). In order to investigate these two competing hypotheses, a linguistic property and an L1-L2 pairing should be carefully selected. For this reason, the SA-English acquisition of definite and indefinite articles will be subject to investigation. Most of the L2 studies have investigated the acquisition of definite and indefinite articles where the feature [definite] is either realised through morphemes (articles) and/or through context in L1 and L2 and vice versa (Cho and Slabakova, 2014; Ionin et al., 2004, 2008; Robertson, 2000; Snape, 2006; White, 2004 and others). However, definite and indefinite articles in SA and English are realised morphologically but differently. To clarify, in SA, the definite article *al* (the) is an overt item while the indefinite article *null* is a null item (Fassi Fehri, 1993; Sarko, 2009). In English, the definite article *the* is an overt item while the indefinite articles are either phonologically overt or null based on the type of following noun (Abney, 1987; Lyons, 1999; Radford, 2005). Further, this study is significant given that both the competing hypotheses, FH and FRH, assume Full Transfer and Full Access (Schwartz and Sprouse, 1994; 1996) in L2 acquisition unlike some hypotheses in the field of SLA which address the role of UG and/or L1 differently (e.g., Fundamental

Difference Hypothesis; Bley-Vroman, 1990, Valueless Features Hypothesis; Eubank, 1993/1994, Interpretability Hypothesis; Hawkins, 2001; Hawkins and Hattori, 2006; Tsimpli and Dimitrakopoulou, 2007) and others. However, the mechanism of Full Transfer and Full Access differs from the viewpoint of the two hypotheses. Based on the FH, the process of the SA-English acquisition of the definite and indefinite articles is predicted to be a task of transferring the L1 setting to the L2 learner's interlanguage; hence, no parameter resetting is required as both the L1 and L2 select the definiteness setting of the ACP. On the other hand, based on the FRH, on the morphological and semantic levels, definite articles are similar whereas indefinite articles are different in English and SA. Thus, different performance should be observed in the L2 acquisition of definite and indefinite articles. Further, the nature of indefinite articles in English provides a good case to examine the role of detectability of the target item (i.e., the difference between the article *a* and the article *null*) as well as the role of detectability of the supporting evidence related to the target item (i.e., the difference between the plural nouns and mass nouns on the morphological level) in SLA. Therefore, the SA-English acquisition of the definite and indefinite articles is significant because it provides an ideal example to investigate the two competing hypotheses in the current study, FH and FRH.

To the best of my knowledge, no studies in the field of SLA have approached L2 acquisition similarly to the approach used in this study. In other words, no studies have compared the acquisition from the perspective of two opposing approaches: parameter (re)setting and feature reassembly. Further, no studies have provided a feature reassembly-based description for L2 acquisition which involves illustrations of the mechanism of the two steps: mapping and feature reassembly. For this reason, this study shall provide a new descriptive approach for L2 acquisition. Consequently, the current study shall contribute to the field of SLA in the sense that it will be able to suggest which approach, parameter (re)setting or feature reassembly, can provide a better explanation for morphological variability amongst L2 learners. Morphological variability here refers to "variable omission, underspecification, overreliance on default forms, and/or apparent optionality vs. obilgatoriness of the morphophonological expression of grammatical properties" (Lardiere, 2008, p.2). Further, examining L2 acquisition from the perspective of the feature reassembly approach in the morphosyntactic and semantic domains might provide a clearer picture of the L2 learner's performance and suggest the factors responsible for success or failure in L2 acquisition.

1.2.   Overview of the Chapters

In addition to this introductory chapter, this thesis consists of ten chapters. Chapter 2 provides a background of the two different approaches; parameter (re)setting and feature reassembly to L2 acquisition. The parameter (re)setting approach is represented in the present study through the FH (Ionin, 2003; Ionin et al., 2004), while the feature reassembly approach is represented through the FRH (Lardiere, 2008, 2009a, 2009b) and Slabakova's (2009) proposal. Chapter 3 presents an overview of the article system in English and SA. It also presents how definiteness and specificity are expressed in both languages. Chapter 4 reviews L2 studies that have investigated acquisition in the light of the FH, FRH and Slabakova's proposal. Chapter 5 articulates the hypotheses of the current study in light of the FH, FRH and Slabakova's proposal. Chapter 6 outlines the methodology used in this study which also includes the rationale of using the different tests. Chapter 7 reports and discusses the results in the forced-choice elicitation test while chapter 8 reports and discusses the results in the written translation test. Chapter 9 provides main findings and a feature reassembly-based possible explanation for L2 acquisition. Finally, chapter 10 concludes this thesis.

Chapter 2

Theoretical Background

Parameter (Re)Setting Approach & Feature Reassembly Approach

2.1.   Introduction

This chapter provides the theoretical background to two different approaches to L2 acquisition: parameter (re)setting and feature reassembly.

Adult L2 learners are widely known for their inability to achieve target-like performance, that is, they show morphological variability (Goad, White, & Steele, 2003a, 2003b; Goad and White, 2004, 2006; McCarthy; 2004, 2005; Robertson, 2000; Schwartz and Sprouse, 1996; White, 1985, 2000 and others). For the past three decades, different hypotheses have attempted to explain this morphological variability amongst adult L2 leaners (e.g., FH; Ionin et al., 2004, Interpretability Hypothesis; Hawkins, 2001; Hawkins and Hattori, 2006; Tsimpli and Dimitrakopoulou, 2007, Minimal Trees Hypothesis; Vainikka and Young-Scholten, 1994, 1996, Missing Surface Inflection Hypothesis; Prévost and White, 2000 among others). Unfortunately, these hypotheses have not been able for the most part to offer a thorough explanation for adult L2 learners' inability to achieve target-like performance.

In the framework of Principles and Parameters, parameters are considered to be responsible for cross-linguistic variation amongst languages (Chomsky, 1981). From the viewpoint of the parameter (re)setting approach to language acquisition, Schwartz and Sprouse (1994; 1996) assume that L2 learners initially transfer the L1 grammar (i.e., parameter setting, functional categories and feature values) to the L2 interlanguage and this represents the notion of Full Transfer. They put forward that if the second language does not conform to those settings from the learner's L1, the learner should revise the grammar and reset the different values to be compatible with those in the target language and this exemplifies the notion of Full Access. Accordingly, there will be two different scenarios in L2 acquisition. The first is when a feature, which is related to a certain parameter, has the same value in the L1 and L2. In this case, the L2 learners are not required to (re)set any value in this parameter, given that this value has already been selected in the L1 and L2. That is to say, the L2 learner's task will be a process of transferring the L1 grammar to the L2

interlanguage, that is, Full Transfer. The second scenario is when the feature in the L2 has a different value from that in the L1. When this happens, the L2 learner will initially transfer the L1 grammar to the L2 interlanguage, that is, Full Transfer, then, given that this grammar is incompatible with that in the L2, the learner will need to reset the values of this grammar in the L2 interlanguage to the new value required in the L2 (i.e., Full Access). Some studies that support Full Transfer/Full Access include Haznedar (2001), Ionin et al. (2004), Ionin et al., (2008), Slabakova (2000), White (1985) and Yuan (1998).

On the other hand, according to Lardiere (2005, 2008, 2009a), parameters have provided great promise in the field of SLA since their introduction. However, she observes that these parameters have failed to account for morphological variability amongst L2 learners, and are unable to predict the consequences of L2 acquisition in terms of success or failure. Lardiere (2008) asserts that the different studies examining adult L2 learners in the light of the parameter (re)setting approach have led to similar results (i.e., these studies conclude that success/failure in L2 acquisition is ascribed to the L2 learner's ability/inability to reset the value of the parameter at issue in the target language). According to Lardiere (2005, 2008, 2009a), examining L2 acquisition in the light of setting or resetting a certain parameter in the target language has not led the field of SLA anywhere. Thus, there is a growing tendency to approach L2 acquisition from another perspective.

Lardiere (2005, 2007, 2008, 2009a, 2009b) suggests that L2 acquisition is not simply about the learner's selection of an appropriate value of the feature associated with a certain parameter; rather, it is the assembly of the lexical items in the L2 which are related to particular features and how these features are expressed and conditioned. This viewpoint of the process of L2 acquisition might be responsible for the level of success and morphological variability in SLA. Lardiere (2005, 2008, 2009a) states that features are assembled differently across languages, as in the case of the features [definite] and [plural] in Chinese and English. Features are expressed under specific conditions and restrictions. Furthermore, expressing a feature morphologically might be obligatory in a certain language, but optional in another. Lardiere (2005, 2008, 2009a, 2009b) underestimates the role of parameters in SLA. She argues that parameters have failed to maintain one of the purposes of their creation, which is to ease the task of learnability for L1 and L2 language acquirers, quoting Hawkins who states:

> "Principles define the structural architecture of human language. Variation
> between particular languages or varieties of language is accounted for by a

small number of parameters of variation allowed within the overall design defined by the principles." (Hawkins, 2001, p.13, as cited in Lardiere, 2008, p.106)

Hawkins (2001) argues that variation between languages is accounted for by a few parameters. Lardiere (2008) states that SLA researchers, on the other hand, tend to bring to the field new versions of parameters in order to explain every minor difference across languages. Lardiere argues that variation across languages leads to the proliferation of new parameters, which may mislead the learner, and not help the field of SLA. Lardiere argues that parameters were introduced more than three decades ago as a promising tool to describe differences across languages. The consequences of such parameters remain ambiguous. Parameters have specific settings that differ from one language to another and therefore, one should expect a certain outcome driven by these settings. Parameters mostly fail to predict such derivation amongst L2 learners. Lardiere also argues that there are few constraints on creating new parameters, such that linguists keep adding new ones just to deal with idiosyncratic properties of individual languages. Lightfoot states that parameters:

> .…would need to be more general, more simple and very different from what one sees in the literature (…) Some linguists have come to equate parameters with superficial 'differences' among languages. This runs the risk of allowing parameters to proliferate and run out of control, and in fact parameters have become more and more fine-grained, each one capturing smaller ranges of phenomena. (Lightfoot, 1997, p.254)

Building on Chomsky's Minimalist program (1995), Lardiere (2005) argues that semantic features are available in all languages regardless of the way in which they are spelled out; overtly or not. She states that "[h]ow such features are idiosyncratically assembled and realised in each language, whether inflectionally or lexically, or even overtly or covertly, constitutes the real nub of crosslinguistic variation" (Lardiere, 2005, p.179). Lardiere (2005, 2008, 2009a) sheds light on formal features and argues that the most important aspect of these features in L2 acquisition relies on the way they are assembled. The feature reassembly approach (Lardiere, 2008, 2009a, 2009b) argues that in L2 acquisition of a property (X), learners initially look in L2 input for the closest morphological equivalent of the assembled lexical item of this property in the L1 (i.e., Full Transfer). Then, if the feature set of this property is assembled differently in the L1 and L2, the learner must reassemble the feature set

of this property from how it is established in the L1 to the way it is required in the L2 (i.e., Full Access). To do so, the learner needs to know how the features involved in the target property are assembled through figuring out the conditions and restrictions of the realisation of those features. According to Lardiere (2005, 2008, 2009a), this approach differs from the parameter (re)setting approach to SLA, which suggests that learners must set or reset a certain parameter to acquire a certain property appropriately. That is, Lardiere argues that L2 learners, of any language, exhibit a problem of remapping.

To reiterate, the present study investigates the parameter (re)setting through the FH (Ionin, 2003; Ionin et al., 2004) while it investigates the feature reassembly approaches through the FRH (Lardiere, 2008, 2009a, 2009b), and Slabakova's (2009) proposal.

The layout of this chapter is as follows. Section 2.2 presents a theoretical background to the FH (Ionin, 2003; Ionin et al., 2004). Section 2.3 provides a theoretical background to the FRH (Lardiere, 2008, 2009a, 2009b) and Slabakova's (2009) proposal, while Section 3.4 summarises this chapter.

2.2. Parameter (Re)Setting Approach

The parameter (re)setting approach is represented in the present study through the FH (Ionin, 2003; Ionin et al., 2004) which proposes the ACP. Before providing a theoretical background of the FH, I first illustrate the concept of definiteness and specificity, to explain the rationale behind the ACP.

2.2.1. Definiteness and Specificity

There have been several attempts in the literature to provide a definition for definiteness (e.g., Christophersen, 1939; Hawkins, 1978; Heim, 1991; Lyons, 1999) and Specificity (e.g., Fodor and Sag, 1982; Huebner, 1983; Lyons, 1999; Thomas, 1989). The current study will adopt the definitions of definiteness and specificity that were adopted in Ionin (2003) and Ionin et al. (2004) given that it investigates the ACP proposed by these two studies. Consider the following formal definitions of definiteness and specificity in (1). Note that Ionin (2003) adopts the standard Fregean analysis of definite NPs and the standard quantificational analysis of indefinite NPs in Heim (1991) (cited in Ionin, 2003). Further,

Ionin (2003) adopts with some modifications the formal definition of specificity proposed by Fodor and Sag (1982).

(1) Definiteness and Specificity: Formal definitions

a. Definiteness (Fregean analysis)

[*the* ζ] ξ expresses that proposition that is . . .

• true at 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-valueless at an index i, if there isn't exactly one ζ at i.

(Heim, 1991, p. 9)

b. Indefinites (quantificational analysis)

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

(Heim, 1991, p. 26)

c. Specificity

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 intends to refer to exactly one individual xc in c, and there exists a property φ that the speaker considers noteworthy in c, and xc is both α and φ in c. When this condition is fulfilled, [sp α] ζ expresses that proposition that is true at an index i if xc is ζ at i and false otherwise.

(based on Fodor and Sag, 1982, with modifications, see Ionin, 2003, p.56)

In order to simplify the formal definitions above, Ionin et al. (2004) provide informal definitions of definiteness and specificity, which are as follows: An NP is definite (1a) if the speaker and hearer presuppose the existence of a unique individual in the set denoted by the NP. However, it is indefinite (1b) if they do not presuppose this existence. In terms of specificity (1c), Ionin et al. (2004) argue that an NP is specific if the speaker intends to refer to a unique individual in the set denoted by the NP and consider this individual to possess some noteworthy property. On the other hand, an NP is nonspecific when the speaker does not intend to refer to a unique individual in the set denoted by the NP. I will illustrate these definitions through examples in English and Samoan. The rationale of choosing these two languages is because in English the feature [definite] not the feature [specific] is encoded through articles whilst in Samoan the feature [specific] not the feature [definite] is encoded

through articles (Ionin, 2003; Ionin et al., 2004). The example in (2) is taken from Ionin et al. (2004, p.7).

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

In (2), Ionin et al. (2004) argue that the speaker and hearer do not presuppose the existence of a unique referent for *a cat* given that it is mentioned for the first time in the discourse. Therefore, the condition provided above for the NP to be definite is not met. Therefore, this NP is preceded by the indefinite article *a*. On the other hand, once the existence of a unique referent is established in the second mention of this cat, the condition for the NP to be definite is met. As a result, the definite article is used, *the cat*.

Consider the following example in (3) to illustrate the definition of specificity:

(3)

a. Peter intends to marry *a/this merchant banker* – though he doesn't get on at all with her.

b. Peter intends to marry *a/??this merchant banker* – though he hasn't met her yet. [1]

(Lyons, 1999, p.76)

According to Ionin et al. (2004), the speaker in (3a) intends to refer to a particular individual by *a merchant banker*. Further, from the speaker's viewpoint, this particular individual possesses a noteworthy property, which is that Peter does not get on at all with her. In (3b), the speaker does not intend to refer to particular individual by *a merchant banker* (i.e., from the speaker's viewpoint, the referent of this NP does not possess a noteworthy property). Ionin et al. (2004) argue that the condition of specificity provided in (1c) is fulfilled in (3a) while it is not in (3b). Thus, *a merchant banker* in (3a) is specific while *a merchant banker* in (3b) is nonspecific. For this reason, the colloquial use of *this* in (3a) can offer a specific reading while it cannot in (3b) (Lyons, 1999).

The two examples in (3) show that in English, the feature [-definite] is expressed morphologically while the feature [±specific] is expressed through context. In other words, the indefinite NP *a merchant banker* can be specific or nonspecific, based on the context.

Consider the following examples for more illustration about specificity:

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[1] The article *a* in the two examples in (3) is added to merchant banker by Ionin et al. (2004) to show that it can be used with indefinite specific and nonspecific NPs.

(4)

a. I'd like to talk to *the winner of today's race*– she is my best friend!

b. I'd like to talk to *the winner of today's race* – whoever that is; I'm writing a story about this race for the newspaper.

<div align="right">(Ionin et al., 2004, p.8)</div>

The specificity condition provided in (1c) is met in (4a) but not in (4b). In (4a), the speaker intends to refer to a particular individual by *the winner of today's race* who possesses a noteworthy property: the speaker's best friend. Hence, this NP is specific. On the other hand, in (4b), the speaker does not intend to refer to a particular individual by *the winner of today's race*. Rather, the speaker wants to talk to the winner of today's race, whoever that is. Therefore, the NP *the winner of today's race* in (4b) is nonspecific.

The illustration of the two examples in (4) shows that English encodes the feature [+definite] through the article *the*. On the other hand, these examples show that English encodes the feature [±specific] through context. That is to say, the context in the two examples gives either a specific or nonspecific reading for the definite NP *the winner of today's race*.

There are, however, some languages that use articles on the basis of the feature [specific]. Mosel and Hovdhaugen (1992) argue that Samoan expresses the feature [+specific] with NPs through the article *le* while it expresses the feature [-specific] with NPs through the article *se*. Mosel and Hovdhaugen also state that "the specific article singular *le* indicates that the noun phrase refers to one particular entity regardless of whether it is definite or indefinite" (1992, p.258). For illustration, consider the following examples:

(5)

'O	*le*	*ulugali'i,*	*fanau*	*l=a*	*la*	*tama*	*'o*	*le*	*teine*	*'o*
PRES	ART	couple	give birth	ART=Poss	3.du	child	PRES	ART	girl	PRES

Sina
Sina

'There was a couple who had a child, a girl called Sina.'

(6)

Masani	'o	**le**	**tamaloa**	e	usua'i=ina	lava	ia.....
used	PRES	ART	man	GENR	get up early=ES	EMPH	3sg

'ae nonofo	'o	**le**	**fafine**	ma l=a=na	tama i
but stay(pl.)	PRES	ART	woman	and ART=Poss=3sg	child LD

le	fale
ART	house

'It was the man's practice to get up early and… while the woman stayed at home with her child.'

(Mosel and Hovdhaugen, 1992, p.259)

In examples (5) and (6), a Samoan speaker is telling a story. He introduces in (5) *le ulugali'i* (a couple) and *le teine* (a girl). In (5), the speaker intends to refer to unique individuals in the set denoted by the NPs *le ulugali'i* (a couple) and *le teine* (a girl) and considers these individuals to possess noteworthy properties (i.e., *a couple who had a child* and *a girl called Sina*). Note that the article *le* is used to refer to these specific referents introduced in the discourse. In example (6), the Samoan speaker continues to use the specific article *le* with *tamaloa* (man) and *fafine* (woman) with the intention to refer to unique individuals in the set denoted by these NPs and considers them to possess noteworthy properties. Note that the referents of these two NPs in (6) have been introduced in the discourse *le ulugali'i* (a couple) in (5). Thus, it appears that if the specificity condition (i.e., the speaker's intention to refer to a unique individual in the set denoted by the NP and the consideration that this individual possesses some noteworthy property), is met as in (5) and (6), the article *le* is used. However, although the definiteness condition (i.e., the speaker and hearer presuppose the existence of a unique individual) in the set denoted by the NP is not met *le ulugali'i* (a couple) in (5), that is, indefinite NPs, while it is met *le tamaloa* (the man) and *le fafine* (the woman) in (6) (i.e., definite NPs), Samoan does not use any article to express the feature [definite]. Rather, it appears that Samoan expresses definiteness through context.

The following example in (7) shows how Samoan expresses the feature [-specific]:

(7)

'Au=mai   se   *niu*!

take=DIR   ART   coconut

"Bring me a coconut [no matter which one]!"

<div align="right">(Mosel and Hovdhaugen, 1992, p.261)</div>

In example (7), a Samoan speaker is asking the hearer to bring any coconut. That is, the speaker does not intend to refer to a unique individual in the set denoted by the NP *niu* (coconut). As a result, the article *se* is used with *niu* (coconut) to indicate its nonspecific reference.

To sum up, the examples in (5), (6) and (7) show that Samoan uses articles on the basis of specificity. That is, it uses the article *le* to refer to specific NPs and the article *se* to refer to nonspecific NPs. On the other hand, the examples in (5) and (6) show that Samoan does not encode the feature [definite] morphologically; rather, it is encoded through context.

The examples in this section illustrate that definiteness and specificity can be expressed morphologically and contextually. For instance, English expresses the feature [definite] morphologically while it expresses the feature [specific] through context. Samoan on the other hand expresses the feature [specific] morphologically, but expresses the feature [definite] through context.

2.2.2. Fluctuation Hypothesis.

Turning to the theoretical background of the FH (Ionin, 2003; Ionin et al., 2004), the FH proposes an account for the adult L2 learners' misuse of English definite and indefinite articles in the form of using definite articles with indefinite NPs, and indefinite articles with definite NPs. In other words, commission errors. Ionin (2003) and Ionin et al. (2004) claim that adult L2 learners from an article-less L1, will have difficulty using articles in, say English, on the basis of the feature [definite], since this feature is not encoded through articles in their L1. They also claim that these learners will make commission errors which are not random, but rather systematic. They ascribe these errors to the L2 learner's tendency to use definite and indefinite articles on the basis of the two features [definite] and [specific] provided by the UG inventory, given that these two features are not encoded through articles in the L1. For example, according to Ionin et al. (2004), L2 learners of English whose L1 is

considered article-less are predicted to mistakenly overuse the definite article *the* with indefinite specific NPs, since they have not yet acquired that the article *the* is only used with definite NPs regardless of the feature [specific].

Based on the distinctive semantic uses of articles in English and Samoan shown in Section 2.2.1, Ionin (2003) and Ionin et al. (2004) propose the ACP that governs article choice. This parameter distinguishes articles on semantic, but not syntactic grounds. The researchers provide an illustration of their proposed parameter as in (8):

(8) The Article Choice Parameter (for two-article languages)

A language that has two articles distinguishes them as follows:

The Definiteness Setting: Articles are distinguished on the basis of definiteness.

The Specificity Setting: Articles are distinguished on the basis of specificity.

(Ionin et al., 2004, p.12)

Furthermore, Ionin et al. (2004) predict that when speakers from languages that do not represent definiteness and specificity in their grammar acquire a language that encodes definiteness, such as English, they will exhibit what the researchers describe as fluctuation. Based on the ACP, and taking into account that adult L2 learners can fully access UG, Ionin et al. propose the FH, which is stated in (9):

(9) 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 et al., 2004, p.16)

Ionin (2003) and Ionin et al. (2004) claim that L2 learners whose L1 does not have articles have full access to both settings, definiteness and specificity, in the ACP, since they have full access to UG. Accordingly, in the L2 acquisition of articles in English by learners from article-less languages, L1 transfer plays no role in article semantics. That is to say, in such situation, L2 learners are predicted to fluctuate between the two settings provided by the ACP, until they arrive at the correct semantic setting of articles in English (i.e., definiteness).

Table 2.1

Predictions of Article Choice in L2 English (taken from Ionin et al., 2004, p.19)

	+definite (target: *the*)	-definite (target: *a*)
+specific	Correct use of *the*	Overuse of *the*
-specific	Overuse of *a*	Correct use of *a*

According to Table 2.1, the FH (Ionin et al., 2003; 2004) predicts that L2 learners of English from article-less L1s will correctly use the article *the* with definite specific NPs whilst they will inaccurately overuse the article *a with definite nonspecific NPs. Further, these learners are predicted to correctly use the article *a* with indefinite nonspecific NPs while they inaccurately overuse the article *the with indefinite specific NPs. That is to say, L2 learners of English from article-less L1s will use the article *the* accurately on the basis of the feature [+definite], and inaccurately on the basis of the feature [+specific]. Additionally, they will use the article *a* accurately on the basis of the feature [-definite], and inaccurately on the basis of the feature [-specific]. Thus, fluctuation will be observed in [+definite, -specific] (i.e., overuse of the article *a) and in [-definite, +specific] (i.e., overuse of the article *the).

This section has provided theoretical background to the FH (Ionin, 2003; Ionin et al., 2004), which represents the parameter (re)setting approach to L2 acquisition. The next section provides theoretical background to the feature reassembly approach to L2 acquisition which is represented through the FRH (Lardiere, 2008, 2009a, 2009b).

2.3.   The Feature Reassembly Approach

The feature reassembly approach to L2 acquisition is represented in the present study through the FRH (Lardiere, 2008, 2009a, 2009b) which provides an alternative account for the morphological variability in L2 acquisition.

Lardiere (2008, 2009a, 2009b) states that L2 learners initially look at the L2 input for the closest morpholexical equivalents of the assembled lexical items in the L1. Then, if required (i.e., the feature set of the property to be acquired in the L2 differs from that of its closest equivalent in the L1), the learners must reassemble the feature set of the target property from the way it is assembled in the L1 to the way it is required in the L2. In order for this to take place, L2 learners are required to acknowledge how the feature/s of the target item are

assembled, through figuring out the conditions and restrictions on the realisation of these features. An example of how features are assembled differently crosslinguistically comes from the assembly of the feature [+past] amongst English, Irish and Somali.

Lardiere (2008) argues that although the feature [+past] is selected in English, Irish and Somali, it appears that it is expressed differently (i.e., it does not express a unified interpretable feature, nor it is restricted to a specific domain).

In English, Lardiere (2008) argues that the feature [+past] does not only express past events, but it also denotes perfective aspects as in (10a) and irrealis mood as in (10b).

(10)

    a.   The cow jumped over the moon.

    b.   If I only had a brain…   (Lardiere, 2008, p.6)

Consider the two following examples in Irish:

(11)

    a.   *Deir sé **goN**   dtuigeann   sé an   scéal*
        says he that.PRESENT   understand   he the   story
        'He says that he understands the story.'

    b.   *Deir sé **gurL**   thuig   sé an   scéal*
        says he that.PAST   understood   he the story
        'He says that he understood the story.'

                                          (McCloskey, 1979, p.13)

According to McCloskey (1979), the particle *go* in Irish is an equivalent of *that* in English. It is a base-generated complementizer. This particle in the CP must agree in tense with the following embedded clause. In (11a) the particle *goN* (that.PRESENT) agrees in tense with the present tense of the verb *dtuigeann* (understand) in the following embedded clause. In (11b), the particle *gurL* (that.PAST) agrees in tense with the past tense of the verb *thuig* (understood) in the following embedded clause. The two particles, which are base-generated complementizers, show an obligatory agreement in tense with the verb of the following embedded clause (McCloskey, 1979). Thus, this shows that the feature [+past] in Irish

appears on complementizers in the CP, in agreement with the past tense of the verb in the embedded clause.

In terms of Somali, Lardiere (2008) argues that it marks [+past] on DPs. She puts forward that it not only implies 'past time' agreement as in (12a), but it also indicates temporal habitualness as in (12b), evidentiality (whether the reference of the noun is evidently visible or invisible to the speaker) as in (12c), and alienable possession in predicative genitive constructions, as in (12d). These examples are taken from Lecarme (2003, 2004).

(12)

    a. *árday-gii*   *hore*
       student-detM.past   before
       'the former student'

    b. *(Weligay) dúhur-kii*   *baan*   *wax*   *cunaa*
       (always)   noon-detM.past   F.1sg   thing   eat.pres
       'I (always) eat at noon.'

    c. *Inán-tii*   *hálkée*   *bay*   *joogta?*
       girl-detF.past   place-detM.Q   F.3sg   stay.F.pres
       'Where is the girl?'

    d. *Búug-gani*   *waa*   *bug-gii*   *Maryan*
       book-detM.dem   Foc   book-detM.past   Maryan
       'This book is Maryan's book.'

The examples above indicate that the feature [+past] is assembled differently in English, Irish and Somali. Furthermore, the conditions of its expression are not similar (e.g., DPs can contain this feature in Somali while it cannot in English). Therefore, Lardiere (2008) argues that explaining these languages based on their selection of the feature [+past] would be clearly insufficient. However, the contexts where this feature can, cannot or must be expressed, and the restrictions involved with its use, must all be thoroughly considered in the L2 acquisition of such a feature.

To illustrate, it appears that the task, for instance, of English-speaking L2 learners of Somali would not involve the selection of the feature [+past], given that English and Somali select this feature. Rather, their task is to acknowledge that Somali expresses [+past] on DPs.

Additionally, these learners need to acquire that [+past] in Somali is encoded to expresses past time, habitualness, evidentiality, and alienable possession in predicative genitive constructions, while it is encoded in English to express, for example, past events, perfective aspects and irrealis mood. Thus, the FRH (Lardiere, 2008, 2009a, 2009b) predicts that the acquisition of the feature [+past] in Somali by English speakers is regarded as a difficult task, since the learners need to reassemble this feature from the way it is initiated in English to the way it is required in Somali.

Although the FRH (Lardiere, 2008, 2009a, 2009b) proposes another approach to L2 acquisition, White (2009) argues that this approach does not provide a clear picture of which type of reassembly is predicted to be more difficult, or whether a specific L1-L2 combination poses a greater challenge. Due to this, building on both the FRH proposed by Lardiere (2008, 2009a, 2009b) and the proposal of Ramchand and Svenonius (2008), Slabakova (2009) provides a proposal where illustrating the predictions for L2 acquisition of grammatical features within the feature reassembly framework. The theoretical background of Slabakova's proposal is presented in the following section.

2.3.1. Slabakova's proposal.

Slabakova (2009) argues that Lardiere's proposal might imply that there will be no finite set of cross-linguistic differences, given that the process of L2 acquisition involves (re)assembly of the formal features which are distributed differently across languages. Slabakova suggests that in order for the FRH (Lardiere, 2008, 2009a, 2009b) to have predictive power, as well as an active role of UG in language acquisition, it is vital to examine constraints on the feature reassembly paradigm, which can present an explanation based on the role of UG. For this reason, Slabakova presents an attempt to find parametric constraints on the feature reassembly model, based on a claim by Ramchand and Svenonius (2008).

Ramchand and Svenonius (2008) suggest that all languages have a universal semantic/pragmatic component (Conceptual-Intentional systems; Chomsky, 2004 and Conceptual Structure; Jackendoff, 2002), which offers all the different meanings. Ramchand and Svenonius illustrate that languages differ only in the way they express the different universal meanings (e.g., definiteness, specificity, past and others). They explain that some

languages express certain meanings through overt morphemes, while other languages express these meanings through covert morphemes or context.

To illustrate, let us discuss the nominal features: [definite] and [specific], which are realised in the functional category D. These two meanings are realised in all languages, however they are expressed differently. In English for instance, definiteness is realised through morphologically whereas specificity is realised contextually. Other languages differ. For example, Norwegian realises definiteness and specificity through morphemes. In Norwegian, discourse familiarity is realised through a free form article in prenominal position whereas specificity is expressed through a definite suffix, which is regarded as a bound form of article. That is, both features are encoded through morphemes as shown in (13) and (14). Both examples are taken from Anderssen (2007, p.257)

(13) *Æ   spiste ikke <u>den   minste   bit</u>   av   kaka.   #Den, spiste han Derek.*
     I   ate   not   the   least   bit   of   cake.   It,   ate   he   Derek.
     'I didn't even eat a small slice of the cake. #It was eaten by Derek.'

(14) *Æ   spiste ikke <u>den   minste   bit-n</u>   av   kaka.   Den spiste han Derek.*
     I   ate   not   the   least   bit-DEF of   cake.   It   ate   he   Derek.
     'I didn't eat the smallest slice of the cake. It was eaten by Derek.'

According to Anderssen (2007), The NP *den minste bit* (the small piece) in (13) denotes definite nonspecific interpretation since no referent is established. It is inappropriate to say that Derek in example (13) ate a piece of cake which has no referent. On the other hand, the NP in (14) *bit* (piece) is suffixed with *–n* which gives an interpretation of a definite specific referent. That is, Norwegian has two definite determiners; a definite prenominal free form article *den* which gives an interpretation of definite nonspecific referent and a definite suffix *–n* that gives an interpretation of definite specific referent.

English, on the other hand, encodes definiteness through morphemes while it encodes specificity through context as shown in (15) and (16). Both examples are taken from Lyons (1999, p.167).

(15)

    a. Joan wants to present the prize to *the winner* – so she'll have to wait around till the race finishes.

    b. Joan wants to present the prize to *the winner* – but he doesn't want to receive it from her.

(16)

    a. Peter intends to marry *a merchant banker* – though he doesn't get on at all with her.

    b. Peter intends to marry *a merchant banker* – though he hasn't met her yet.

In (15a), the speaker and hearer presuppose the existence of a unique individual of the referent of *the winner*. Thus, it is definite. However, the speaker does not refer to a particular individual that has a noteworthy property of the NP *the winner*. Hence, it is nonspecific. In (15b), the speaker and hearer presuppose the existence of a unique individual of the referent of *the winner*; hence it is definite. Further, the speaker in this example refers to a particular individual who possesses a noteworthy property. As a result, it is specific. In these two examples in (15), the feature [+definite] is encoded morphologically through the use of the article *the* while the feature [±specific] is not encoded morphologically, but through the context.

In the two examples in (16), the speaker and the hearer do not presuppose the existence of a unique individual of the referents of *a merchant banker*. Thus, the two NPs in both examples are indefinite. However, the referent of *a merchant banker* in (16a) is specific while the referent of *a merchant banker* in (16b) is nonspecific, given that the speaker in the former example refers to a particular individual who possesses a noteworthy property, while the speaker in the latter example does not refer to a particular individual. These two examples in (16) show that the feature [-definite] is encoded morphologically through the use of the article *a*, while the feature [±specific] is not encoded morphologically, but through the context.

Therefore, the examples in (15) and (16) show that English encodes definiteness morphologically while it encodes specificity contextually.

In contrast, Schaeffer and Matthewson (2005) argue that Lillooet Salish encodes definiteness through context, while it encodes specificity morphologically. An example of this is shown in (17).

(17)

a. *ts7a* **ti** *líl'tm-**a** smúlhats*   *papt*   *káti7*   *wa7*   *t'ak*
here   **DET** old-**DET**   woman   always   DEIC   IMPF   go

szácen   *ti*   *ts'lá7-a…*
carry   DET basket-DET

'There was this/an old woman who was always carrying a basket…

b. *cw7aoz*   *kw-a-s*   *ka*   *qwál'-a*   **ti**   *smúlhats-**a***
NEG   DET-IMPF-NOM   OOC   speak-OOC   **DET**   woman-**DET**

'The woman didn't say anything.'

(Schaeffer and Matthewson, 2005, p.61)

The speaker in (17a) refers to a particular individual by the NP ***ti** líl'tm-**a** smúlhats* (an old woman) which possesses a noteworthy property (who was always carrying a basket…) and it is introduced for the first time in the discourse; therefore, this NP is indefinite specific. The speaker continues his dialogue with the hearer and introduced the NP ***ti** smúlhats-**a*** (the woman) for the second time. As a result, it is interpreted as definite specific. It seems that although *smúlhats* (woman) was indefinite in (17a) and became definite in (17b), the determiner ***ti**…**a*** was used in both contexts. This suggests that the feature [±definite] in the two examples in (17) is not morphologically marked but it is interpreted through context. That is, the context implies that *smúlhats* (woman) is indefinite in (17a) while it becomes definite due its introduction for the second time in the discourse in (17b). For more illustration, consider the example in (18):

(18) *cuz'*   *mets-cail*   *ti*   *n-skicez7-a*   **ku**   *pukw*
going.to   write-INTR   DET   1SG.Poss-mother-DET   **DET**   book

'My mother will write a book.'

(Schaeffer and Matthewson, 2005, p.62)

The speaker and hearer in (18) do not presuppose the existence of a unique individual of the referent of ***ku** pukw* (a book). Hence, it is indefinite. Additionally, the speaker does not refer

to a particular individual that possesses a noteworthy property from the speaker's perspective; thus, it is nonspecific.

Schaeffer and Matthewson (2005) argue that the examples above show that Lillooet Salish expresses the feature [+specific] through the determiner *ti…a* as shown in (17) while it expresses the feature [-specific] through the determiner *ku* as shown in (18). Further, they illustrate that Lillooet Salish encodes the feature [±definite] through the context as shown in (17).

In those languages which do not have overt articles, such as Russian, definiteness and specificity are expressed contextually (Cho, 2012). Consider the examples in (19) for illustration:

(19)

    a. *Ja khoču kupit' **knigu** po russkomu jazyku.   Što   ty   rekommendueš'?*
      I want buy **book** on Russian   language. what you recommend
      'I want to buy a book about Russian language. What do you recommend?'

    b. *Ja kupil   **knigu** po   russkomu   jazyku*
      I bought **book** on   Russian   language
      'I bought a book about Russian language.'

    c. *Ja kupil   **knigu**, kotoruju   ty   porekommendoval*
      I bought **book**, which   you   recommended
      'I bought the book which you recommended.'

<div align="right">(Cho, 2012, p.17)</div>

In (19a), the speaker and hearer do not presuppose the existence of a unique individual of the referent of *knigu* (book). As a result, it is indefinite. Further, the speaker does not refer to a particular book which has a noteworthy property; thus, it is nonspecific. In (19b), the speaker and hearer do not presuppose the existence of a unique individual of the referent of *knigu* (book). Consequently, it is indefinite. However, the speaker in this example refers to a particular individual that has a noteworthy property; hence, it is specific. In (19c), the speaker and hearer presuppose the existence of a unique individual of the referent of *knigu* (book). As a result, it is definite. Further, the speaker in (19c) refers to a particular individual by *knigu* (book) which possesses a noteworthy property; thus, it is specific. The examples in (19) show

that the referent of *knigu* (book) can be indefinite nonspecific, indefinite specific or definite specific. Russian does not use any free or bound morpheme to differentiate between these meanings. Rather, Russian appears to express definiteness and specificity through context (Cho, 2012).

The following table is taken from Slabakova (2009, p.319) and it presents the different realisation mechanisms of definiteness and specificity in the aforementioned languages.

Table 2.2

Parametric Differences in Expressing the Nominal Features [Definite] and [Specific]

Meanings	Norwegian	English	Lillooet Salish	Russian
definiteness	morpheme	morpheme	discourse	discourse
Specificity	morpheme	discourse	morpheme	discourse

Building on the proposal of Ramchand and Svenonius (2008) and the FRH (Lardiere, 2008, 2009a, 2009b), Slabakova (2009) presents predictions on the levels of difficulty in feature mapping as shown in Figure 2.1 which is taken from Slabakova (2009, p.321).

Easier to acquire   Harder to acquire

$\longleftrightarrow$

F morpheme	F morpheme	F context
to F morpheme	to F morpheme	to F morpheme
	But reassembly required	No reassembly required

Figure 2.1. A cline of difficulty in grammatical feature acquisition.

According to Slabakova (2009), there are three main situations in L2 acquisition which determine the level in the cline of difficulty in the feature mapping, as shown in Figure 2.1. The first L2 acquisition situation is the least difficult and it is when the property is realised through morphemes in both languages, L1 and L2, and no reassembly is required. The second situation is harder than the first situation and it is when the property is realised through morphemes in L1 and L2, but there is a feature reassembly process that must take place. The third situation is the hardest and it is when the property is realised through context in L1 while the same property is realised through a morpheme in the L2. These three L2 acquisition

situations will be exemplified through the study of Sabourin, Stowe and de Haan (2006) in Section 4.3.

It seems that the cline of difficulty in Slabakova's (2009) proposal is determined by two factors, mapping and reassembly. With respect to mapping, Slabakova argues that the realisation of the property either morphologically or contextually determines the level in the cline of difficulty in L2 acquisition. That is to say, mapping is predicted to be easier if the property to be acquired is realised morphologically in the learner's L1 and the target language. In this situation, L2 learners are predicted to straightforwardly map a morpheme in L1 to a morpheme in the L2. However, if the property in question is realised contextually in the L1 but morphologically in the L2, mapping is predicted to be difficult. For this reason, Slabakova predicts that the different scenarios of mapping play a role in determining the level of difficulty in L2 acquisition.

With respect to feature reassembly, Slabakova (2009) asserts that the (non-)requirement of feature reassembly also plays a role in determining the level of difficulty in L2 acquisition. In other words, if the feature set of the property to be acquired is identical in the L1 and L2, no reassembly is required. Thus, the L2 acquisition of this property is predicted to be a task of straightforward mapping. On the other hand, if the feature sets of the property in the L1 and L2 are different, L2 learners are required to reassemble the feature set of the target property in their interlanguage, from the way it is assembled in the L1, to the way it should be in the L2. For this reason, Slabakova argues that the L2 acquisition of a property that involves just mapping is predicted to be easier than the L2 acquisition of a property that involves mapping and reassembly.

2.4.   Summary of Chapter 2

This chapter has provided the theoretical background of the investigated hypotheses: FH (Ionin, 2003; Ionin et al., 2004) and FRH (Lardiere, 2008, 2009a, 2009b). It has also provided the theoretical background of Slabakova's (2009) proposal. The FH assumes that if the value in the ACP is not selected in the L1, the L2 acquisition of articles will be a process of setting the value, definiteness or specificity, in the ACP.[2] On the other hand, the FRH argues that L2 acquisition is a process of reassembling the feature set of the property to be

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[2] Ionin et al. (2008) argue that if the value in the ACP is selected in both L1 and L2, no (re)setting is required. Further illustration is provided in the Spanish-English acquisition of articles (Ionin et al., 2008) in section 4.2.

acquired from the way it is established in the L1 to the way it is required in the L2. This process obliges L2 learners to acquire the different conditioning factors of expressing this property in the L2 (e.g., acquiring whether the realisation of the property to be acquired is obligatory or optional).

Chapter 3

Background to Definite and Indefinite Article Use in Saudi Arabic and English

3.1.   Introduction

The goal of this chapter is to provide a background to the definite and indefinite articles in English and SA which will be investigated in the light of the two approaches: parameter (re)setting, represented through the FH (Ionin et al., 2004; Ionin et al., 2008) and feature reassembly, represented through the FRH (Lardiere, 2008, 2009a, 2009b) and Slabakova's (2009) proposal.

The layout of this chapter is as follows: Section 3.2 describes the mechanism of expressing definiteness and specificity in SA (note that this chapter does not present the mechanism of expressing definiteness and specificity in English, given that it has been illustrated in Section 2.2.1). Section 3.3 compares the definite and indefinite articles in English and SA. Section 3.4 provides the relevance of the use of articles in both languages to the SA-English acquisition of definite and indefinite articles, from the perspective of the FH (Ionin et al., 2004; 2008) and FRH (Lardiere, 2008, 2009a, 2009b). Finally, Section 3.5 summarises this chapter.

3.2.   Definiteness and Specificity in SA

Before illustrating how definiteness and specificity are expressed in SA, I shall remind the reader of the definitions of these two properties which I have adopted from Ionin (2003) and Ionin et al. (2004). The reason for using the same definitions is due to the fact that this study investigates the ACP proposed by Ionin (2003) and Ionin et al. (2004). Therefore, for the sake of consistency, it seems sensible to use the same definitions of these two properties that are used in these two studies. In a nutshell, An NP is definite when the speaker and hearer presuppose the existence of a unique individual in the set denoted by the NP. Nevertheless, it is indefinite when they do not presuppose this existence. In terms of specificity, an NP is specific when the speaker intends to refer to a unique individual in the

set denoted by the NP and consider this individual to possess some noteworthy property. In contrast, an NP is nonspecific when the speaker does not intend to refer to a unique individual in the set denoted by the NP (see Section 2.2.1 for more illustration of the definitions of definiteness and specificity).

Now, I show how definiteness and specificity are expressed in SA. Like English, SA encodes the feature [definite] morphologically while it encodes the feature [specific] contextually. Consider the following examples:

(1)

a. *oried   an atahadath le **al- faiz**   be- hatha   al-   sibag. Inahu sadig-i*
   need.1sg to talk.1sg   to the winner   of   this   the   race. He   friend-my
   'I need to talk to **the winner** of this race - He is my friend'

b. *oried   an atahadath le   **al- faiz**   be   hatha   al- sibag. Ana   la*
   need.1sg to talk.1sg   to   the winner of   this   the race. I   no
   a'araf   man   hwa.   hal men   al   momken   an   tosaedo-ni.
   know.1sg who   he.   Can   the   possible   to   help.2sg-me.
   'I need to talk to **the winner** of this race – I don't know who he is, so can you please help me?'

In examples (1a) and (1b), the speaker and hearer presuppose the existence of a unique individual in the set denoted by the referent of *al-afiz* (the winner). As a result, it is definite. The two definite NPs in the two examples are preceded by the article *al* (the). Further, in (1a), the referent of *al-afiz* (the winner) is specific while the referent of *al-afiz* (the winner) in (1b) is nonspecific. Note that the NP *al-afiz* (the winner) in these two examples is not morphologically marked for the feature [specific]. It is only the context which gives the different readings of *al-faiz* (the winner) as being specific in (1a) and nonspecific in (1b). Thus far, the examples in (1) suggest that definiteness rather than specificity is expressed through articles. For more illustration, consider the examples in (2):

(2)

  a. *Oriedo*   *an*   *ashtari*   ***baiet***, *walakenaho*   *ghali*

      want.1sg   to   buy.1sg   house, but.it   expensive

      'I want to buy **a house** but it is expensive.'

  b. *Oriedo*   *an*   *ashtari*   ***baiet***, *walakeni*   *lam* *agid*   *baiet*   *monaseb*

      want.1sg   to   buy.1sg   house, but.1sg   not find.1sg house   appropriate

      'I want to buy **a house** but I have not found an appropriate one.'

In examples (2a), the speaker and hearer do not presuppose the existence of a unique individual by the referent of *baiet* (a house). Thus, it is indefinite. However, the speaker in the same example intends to refer to a particular individual in the set denoted by *baiet* (a house) and considers this individual to possess a noteworthy property (i.e., *it is expensive*); hence, it is specific. In example (2b), again, the speaker and hearer do not presuppose the existence of a unique individual by the referent of *baiet* (a house); thus it is indefinite. However, the speaker in the same example does not intend to refer to a unique individual in the set denoted by *baiet* (a house), *I have not found an appropriate one*. Consequently, it is nonspecific. These two examples show that Arabic expresses the feature [-definite] through the use of the article *null* (Fassi Fehri, 1993; Sarko, 2009). Note that the NP *baiet* (a house) in (2a) and (2b) is not morphologically marked for the feature [specific]. It is only the context which offers the different interpretations of *baiet* (a house) being specific in (2a) and nonspecific in (2b). Therefore, it appears that the feature [definite] rather than the feature [specific] in SA is expressed through articles. Bear in mind that there is a disagreement about the marker of indefiniteness in Arabic. Some consider Arabic to mark indefiniteness through the article *null*. Others assume that Arabic does not have morphological marker for indefiniteness and indefinite NPs in Arabic are basically bare nouns. Another view which is no longer tenable argues that indefiniteness is marked through what is called nunation '-*n*'.[3] In the current study, I adopt the first view which argues that Arabic marks indefiniteness through the article *null* (For more details, see Fassi Fehri, 1993 and Sarko, 2009).

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[3] In standard Arabic, nunation is a written double vowel sign at the end of nouns, which has been termed 'tanwiin' by Arabic grammarians. Although some researchers such as Tritton (1977) consider nunation as an indefinite article, other researchers do not agree. For example, Fassi Fehri (1993) and Lyons (1999) suggest that the view of nunation as an indefinite article is barely tenable. They explain that nunation appears at not only the end of indefinite noun, but rather at the end of proper nouns as in 'Hindun' (Hind) which as result does not make it an indefinite article. See Fassi Fehri (1993) and Lyons (1999) for more details.

To sum up, the examples in (1) and (2) suggest that SA realises definiteness morphologically while it realises specificity contextually.

This section has shown that SA is similar to English in that they both express definiteness through morphemes while they express specificity through context (see Section 2.2.1 for the realisation of definiteness and specificity in English). Therefore, SA selects the definiteness setting of the ACP proposed in Ionin (2003) and Ionin et al. (2004). Thus, the SA-speaking L2 learners will be similar to the Spanish-speaking L2 learners in the acquisition of definite and indefinite articles in English given that SA, Spanish and English select the definiteness setting of the ACP (see Section 4.2 for more details of the Spanish-English acquisition of definite and indefinite articles).

3.3.   Article System in English and SA

This section illustrates the definite and indefinite articles in English and SA. It will be shown that there are some similarities and differences in the definite and indefinite article systems in English and SA in that the definite articles in both languages seem similar, whereas indefinite articles seem different.

Let us now compare the definite articles in English and SA. Consider the following examples in (3):

(3) English
a. Definite singular NPs:
   The *man* was tired.

b. Definite plural NPs:
   The *men* were tired.

c. Definite mass NPs:
   The *sugar* was expensive.

In examples (3a-c), the definite NPs; *the man* (singular), *the men* (plural) and *the sugar* (mass) are preceded by the definite article *the*. This shows that English uses the definite article *the* with the different definite NPs, regardless of the type of following noun (i.e., the feature [number] does not affect the selection of articles with definite NPs in English; Lyons, 1999).

Now, consider the following examples for the same definite NPs in SA.

(4) SA

a. Definite singular NPs:

al-ragol   *kan*   *motʕab*

The man.SG   was   tired

'The man was tired.'

b. Definite plural NPs:

al- regal   *kano*   *motʕabien*

The men.PL   were   tired

'The men were tired.'

c. Definite mass NPs:

al-sukar   *kan*   *ɣali*

The-sugar.MASS   was   expensive

'The sugar was expensive.'

Like English, SA definite NPs are preceded by the definite article *al* (the) regardless of the type of following noun: *al-ragol* (the man), *al-regal* (the men) and *al-sukar* (the sugar) in examples (4a-c) respectively. Thus, it appears that the feature [number] is not involved in selecting the articles with definite NPs in SA.

To sum up, English and SA are alike with respect to expressing the feature [+definite] through articles. Both languages use morphemes, the definite article *al* (the) in SA and the definite article *the* in English, with the different types of following nouns.

In terms of article use with indefinite NPs, it appears that English and SA are different to some extent. In English, indefinite NPs are preceded by either the indefinite article *a* or *null* based on the type of following noun: mass or count and plural or singular (Abney, 1987; Lyons, 1999; Radford, 2005). That is to say, the feature [number] seems to play a role in selecting the right article with indefinite NPs. In SA, indefinite NPs are preceded by the indefinite article *null* regardless of the type of following noun; thus, the feature [number] is not involved in selecting the right article with indefinite NPs (Fassi Fehri, 1993; Lyons, 1999). The following examples give more illustration about indefinite articles in English (these examples are taken from Lyons, 1999, p.34-35):

(5) English

a. Indefinite singular NPs:

I'm looking for *a record*.

b. Indefinite plural NPs:

I've already put *spoons* on the table.

c. Indefinite mass NPs:

John has gone out to buy *milk*.

In English, indefinite NPs are preceded by either the indefinite article *a* or *null* and this is determined by the type of following noun. That is to say, indefinite singular NPs are preceded by the indefinite article *a* as in *a record* in (5a). On the other hand, indefinite plural and mass NPs are preceded by the indefinite article *null* as in *spoons* and *milk* in (5b) and (5c) respectively. This shows that the selection of indefinite articles with indefinite NPs in English is determined by the feature [number], contrary to definite NPs in the same language. Thus, from the viewpoint of the feature reassembly approach (Lardiere, 2008, 2009a, 2009b), the feature set of the indefinite article *a* includes the features [-definite] and [+count [-plural]] while the feature set of the indefinite article *null* includes the features [-definite] and [+count [+plural]] or [-definite] and [-count].

Unlike English, indefinite NPs in Arabic are preceded by the indefinite article *null* regardless of the type of following noun (Fassi Fehri, 1993; Lyons, 1999). The following examples in (6) illustrate how articles are used with indefinite NPs in SA:

(6) SA

a. Indefinite singular NPs:

ana	*abħað*	*ʕan*	***ragem giasi.***
I	looking.1sg	for	record

*'I'm looking for record.'

'I'm looking for a record.'

b. Indefinite plural NPs:

lagad	*wada ʕato*	***malaʕig***	*ʕal*	*altawilah.*
already	put.1sg	spoons	on	the table

'I've already put spoons on the table'

c. Indefinite mass NPs:

Goan	*ðahab*	*le-yashtri*	***ħalib***
John	gone.3sg	to-buy.3sg	milk

'John has gone out to buy milk.'

In SA, the examples (6a-c) show that indefinite NPs are preceded by the indefinite article *null* irrespective of the type of following noun as in *ragem giasi* (a record), *malaʕig* (spoons) and *ħalib* (milk). Therefore, from the viewpoint of the feature reassembly approach, the feature set of the indefinite article *null* in SA includes only the feature [-definite].

3.4.   The Relevance of the Article System in English and SA to the FH and FRH

This section describes the relevance of similarity and difference of the article system in English and SA to the hypotheses under investigation: FH (Ionin, 2003 and Ionin et al., 2004) and FRH (Lardiere, 2008, 2009a, 2009b).

Based on the illustration in Section 3.2, it appears that English and SA select the definiteness setting of the ACP proposed in Ionin (2003) and Ionin et al. (2004) in expressing articles. Therefore, based on the parameter resetting approach to L2 acquisition, the SA-speaking L2 learners of English are predicted to transfer the setting of the ACP from L1 to the L2 interlanguage in the acquisition of definite and indefinite articles (i.e., L1 is predicted to override fluctuation). More illustration is provided in Ionin et al., 2008; Section 4.2).

On the other hand, based on the illustration in Section 3.3, the definite article in SA and English bears only the feature [+definite]. In terms of the indefinite article, it was shown that SA has one indefinite article and it bears only the feature [-definite]. In contrast, English has two indefinite articles *a* and *null*. The indefinite article *a* bears the features [-definite] and [+count [-plural]] while the indefinite article *null* bears the features [-definite] and [+count [+plural]] or [-definite] and [-count] for indefinite count plural and indefinite mass NPs respectively. Therefore, from the perspective of the FRH (Lardiere, 2008, 2009a, 2009b), there is an obvious similarity between the definite articles in English and SA, while there is a difference between the indefinite articles in the same languages.

Chapter 5 provides an in-depth illustration of the application of the similarities and differences between the definite and indefinite articles in English and SA, and the consequences of this in the SA-English acquisition of the definite and indefinite articles from

the viewpoint of the FH (Ionin, 2003 and Ionin et al., 2004) and FRH (Lardiere, 2008, 2009a, 2009b).

3.5.   Summary of Chapter 3

This chapter has illustrated the definite and indefinite articles in SA and English. It has been shown how definiteness and specificity are encoded in both languages and revealed the features responsible for expressing definite and indefinite articles in both languages. This chapter has also provided some background to the relevance of article use in these two languages to the FH (Ionin, 2003 and Ionin et al., 2004) and FRH (Lardiere, 2008, 2009a, 2009b).

Chapter 4

Previous L2 studies

4.1. Introduction

The aim of this chapter is to provide L2 studies that investigate acquisition in light of the FH (Ionin, 2003; Ionin et al., 2004), FRH (Lardiere, 2008, 2009a, 2009b) and Slabakova's (2009) proposal. The layout of this chapter is as follows: Section 4.2 presents some L2 studies of the acquisition of articles in different L1-L2 combinations from the perspective of the FH. Section 4.3 provides different L2 studies from the perspective of the FRH and Slabakova's proposal. Section 4.4 summarises this chapter.

4.2. L2 Acquisition of Articles: The Parameter (Re)Setting Approach

Section 2.2.2 has provided background of the ACP which governs article choice in two-article languages (Ionin, 2003; Ionin et al., 2004). This section reviews different L2 studies that examine the FH and ACP.

Ionin et al. (2004) aim to test the predictions of article choice in the L2 acquisition of English. These predictions are recapped in Table 4.1.

Table 4.1

Predictions of Article Choice in L2 English (taken from Ionin et al., 2004:19) (repeated from Table 2.1)

	+definite (target: *the*)	-definite (target: *a*)
+specific	Correct use of *the*	Overuse of *the*
-specific	Overuse of *a*	Correct use of *a*

Table 4.1 provides the predictions of article choice in L2 English by learners from article-less L1s (i.e., predictions of the FH). This table predicts that these learners will correctly use the article *the* in definite specific context while they overuse the article *a* in definite nonspecific context. Further, they will correctly use the article *a* in indefinite nonspecific contexts but overuse the article *the* in indefinite specific contexts.

In order to test these predictions, Ionin et al. (2004) examined the L2 acquisition of definiteness in English by 26 L1 Russian speakers and 39 L1 Korean speakers. Both of these L1s do not express definiteness or specificity through articles; hence they are article-less languages (Ionin, 2003). Ionin et al. opt to examine learners from article-less languages to avoid the role of L1 transfer in the L2 acquisition of articles in English. These L2 participants were divided into two proficiency groups, intermediate and advanced based on their results in a Michigan Test of English Proficiency. After that, the participants were asked to take part in a forced-choice elicitation test and written production test. The forced-choice elicitation test consisted of 76 English dialogues. In each dialogue, there was a missing article and the participants were asked to choose from three different choices, *a*, *the* and *null*. All the NPs in this test were count singular. There are four different main contexts which are based on the two different settings [±definite] and [±specific]. For illustration, a sample of these contexts is provided in example (1).

(1)

    a.   [+definite, +specific]: Conversation between two police officers

Police Officer Clark: I haven't seen you in a long time. You must be very busy.

Police Officer Smith: Yes. Did you hear about Miss Sarah Andrews, a famous lawyer who was murdered several weeks ago? We are trying to find (a, the, —) murderer of Miss Andrews—his name is Roger Williams, and he is a well-known criminal.

    b.   [+definite, -specific]: Conversation between a police officer and a reporter

Reporter: Several days ago, Mr. James Peterson, a famous politician, was murdered! Are you investigating his murder?

Police officer: Yes. We are trying to find (a, the, —) murderer of Mr. Peterson—but we still don't know who he is.

    c.   [-definite, +specific]: Phone conversation

Jeweller: Hello, this is Robertson's Jewellery. What can I do for you, ma'am? Are you looking for some new jewellery?

Client: Not quite—I heard that you also buy back people's old jewellery.

Jeweller: That is correct.

Client: In that case, I would like to sell you (a, the, —) beautiful silver necklace. It is very valuable—it has been in my family for 100 years!

d.   [-definite, -specific]: In a school

Student: I am new in this school. This is my first day.

Teacher: Welcome! Are you going to be at the school party tonight?

Student: Yes. I'd like to get to know my classmates. I am hoping to find (a, the, ——) new good friend! I don't like being all alone.

<div align="right">(Ionin et al., 2004, p.22-23)</div>

In terms of the written production test, the participants were asked to provide answers (two to three sentences for each) for five different questions. The questions used in this test are provided in (2).

(2)

    a.   Talk about some valuable object that you own or owned in the past: either talk about something that you received as a gift, and tell about how you received it, or talk about something valuable that you lost and tell about how you lost it.

    b.   Talk about the day when you first arrived in the U.S. Describe your experiences of that day—what you did, where you went, to whom you talked, etc.

    c.   Describe your room-talk about what objects you have in your room and describe them.

    d.   Talk about what you did on one of your recent vacations (for example, winter vacation, Thanksgiving weekend, or summer vacation). Talk about where you went and what you did.

    e.   Imagine that you get $1,000 as a gift and you have to spend it right away (you can't put it in the bank). Talk about how you would spend this money.

<div align="right">(Ionin et al., 2004, p.43)</div>

The different questions in (2) were designed to elicit different types of NPs. The question in (2a) was designed to elicit the indefinite specific given that the participants would write about an object that was well-known and significant to them. The question in (2b) and (2d) did not focus on a particular type of DP. Rather, they were designed to elicit both the definite and indefinite, since the participants described things that had taken place in the past. The aim of question (2c) was to elicit the indefinites in *have* and *there* constructions. These indefinites

are usually nonspecific and answers to this question were normally of the form *MY room has…* or *In my room there is…*, followed by different indefinites, with no great importance attached to any individual object. The aim of the question in (2e) was to elicit the narrow-scope indefinites and possibly narrow-scope definites given that the participants would talk about the possible kind of world in which they would win $1000 instead of the actual world.[4] The questions in (2), with some possible exception of (2e), were expected to elicit the definites in previous-mention contexts.

The overall results for the Russian and Korean groups are presented in Table 4.2 which is adapted from Ionin et al. (2004, p.30).

Table 4.2

Ionin et al. (2004) Group Results

L1 Russian (n= 26)	[+definite]		[-definite]	
+specific	79% *the*	8% **a*	36% **the*	54% *a*
-specific	57% *the*	33% **a*	7% **the*	84% *a*
L1 Korean (n= 39)				
+specific	88% *the*	4% **a*	22% **the*	77% *a*
-specific	80% *the*	14% **a*	4% **the*	93% *a*

It appears that the overall results in Table 4.2 largely support the predictions of article choice presented in Table 4.1. Both L1 groups overused article **the* at a higher rate in indefinite specific contexts compared to indefinite nonspecific contexts: 36% compared to 7% in L1 Russian group and 22% compared to 4% in L1 Korean group. Further, the L2 participants' overuse rate of the article **a* was higher in definite nonspecific contexts compared to definite specific contexts: 33% compared to 8% in L1 Russian group and 14% compared to 4% in L1 Korean group. Ionin et al. (2004) explain this performance as being an effect of fluctuation between the two settings: definiteness and specificity in the ACP. This table also shows that the rates of fluctuation in the L1 Korean group were lower than that in the L1 Russian group.

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[4] See Ionin (2003) and Ionin et al. (2004) for more illustration about narrow- and wide-scope DPs in English.

Ionin et al. assume that this is because the L1 Korean group was more advanced in their L2 proficiency than the L1 Russian group; thus showing that fluctuation is a temporary phase in L2 acquisition.

In order to ensure that this fluctuation found in the group results was not due to half of the L2 participants using the article *the* as [+definite] while the other half used it as [+specific], Ionin et al. (2004) conducted further analysis for the data on an individual basis. The results of this analysis showed that the majority of L2 participants either fluctuated or selected the definiteness setting of the ACP, and these two patterns were predicted by the FH. Nevertheless, 24/65 participants chose the articles based on other unexpected patterns as shown in Table 4.3. Note that the shaded rows represent the unexpected patterns.

Table 4.3

(Un)expected Patterns of Individual Results in Ionin et al. (2004)

Response type	No. of individuals	%
a. Definiteness pattern	21/65	32
b. Fluctuation pattern	20/65	31
c. Specificity pattern	2/65	3
d. Partial fluctuation pattern	9/65	14
e. Miscellaneous pattern	13/65	20

Note. This table is adapted from Hawkins et al. (2006, p.13). The shaded rows indicate the unexpected patterns.

The individuals in the definiteness pattern (21/65) were able to select the right setting, definiteness, in the ACP in the L2 acquisition of articles in English. In addition, in the fluctuation pattern, the individuals (20/65) seemed unable to select the right setting; hence they were fluctuating between the two settings of definiteness and specificity in the ACP in the acquisition of articles in English. To reiterate, both of these patterns were predicted by the article choice in the L2 acquisition of articles in English by learners from article-less L1s. However, the other three patterns were not predicted by the FH. In terms of the individuals in the specificity pattern (2/65), they unpredictably mis-set the ACP to the specificity setting rather than definiteness. Thus, these individuals treated the article *the* as [+specific] while they treated the article *a* as [-specific]. In terms of the individuals in the partial fluctuation

pattern (9/65), they made greater specificity distinction with definites than indefinite or vice versa. Finally, the miscellaneous pattern included those individuals (13/65) whose pattern did not fit in one of the aforementioned patterns.

It appears that the predictions of article choice in L2 acquisition were not supported by the results of the individuals who fell in the three latter patterns; specificity, partial fluctuation and miscellaneous. Nevertheless, Ionin et al. (2004) concluded that the overall results in the Russian L1 and Korean L1 groups provided evidence for the FH. However, they put forward that there is an unsolved question which concerns the inability of many highly proficient Korean- and Russian-speaking L2 learners of English to acquire the definiteness setting for English. In other words, these learners continue to show a pattern of fluctuation between the two settings definiteness and specificity when they produce definite and indefinite articles.

In order for the FH and the ACP to be examined amongst a different L1 group which expresses definiteness through articles (i.e., both L1 and L2 select the same setting in the ACP, definiteness), Ionin et al. (2008) compared the L2 acquisition of articles in English by Spanish and Russian L1 speakers. Ionin et al. attempted to investigate whether these learners showed a similar fluctuation pattern as found amongst the Russian and Korean learners in Ionin et al. (2004).

The subjects in this study were 20 Spanish-speaking and 19 Russian-speaking L2 learners of English and 6 native speakers of English who served as a control group. English and Spanish have overt morphological realisation of the feature [±definite]. However, they differ in terms of the articles dedicated to each value of the feature [definite]. Based on Ionin et al. (2008), English has one overt article for each value of the feature [+definite] and [-definite], *the* and *a* respectively, while Spanish has eight different articles given that Spanish articles must agree in Gender and Number. The following table illustrates the different articles in Spanish. This table is taken from Perez-Leroux and Liceras (2002, p.34).

Table 4.4

Definite and Indefinite Article in Spanish

	Definite article		Indefinite article	
	Singular	Plural	Singular	Plural
Masculine	*El*	*Los*	*Un*	*Unos*
Feminine	*La*	*Las*	*Una*	*Una*

Two tests were administered to the participants in this study.[5] The first was a cloze test which was used to measure the level of proficiency of the participants. This test divided the participants into three different groups: beginner, intermediate and advanced. The second was an elicitation test. This test is similar to the test used in Ionin et al. (2004) with two modifications. First, the participants were not provided with the choices *a*, *the* or *null*. Therefore, they were asked to fill in the blanks with what they considered appropriate for the dialogue. The second modification was the addition of different fillers that included, for example, prepositions and pronouns. In this task, there were 36 target items and 24 fillers. The results showed no incidence of commission errors amongst the Spanish-speaking L2 learners of English.[6] That is to say, these learners did not use the article *the* in indefinite context nor the article *a* in definite context; thus, no fluctuation was found in the L2 acquisition of articles in English by Spanish L1 speakers. Therefore, it appears that these learners transfer the knowledge of expressing definiteness through articles in Spanish (L1) to the L2 interlanguage.

Ionin et al. (2004) and Ionin et al. (2008) discussed the role of the ACP in L2 acquisition of definite and indefinite articles in English by learners from two different L1 groups. The first included article-less languages, Korean and Russian (Ionin et al., 2004; 2008) while the second includes learners whose L1 Spanish realises definiteness through articles, similar to English (Ionin et al., 2008). The findings from the two studies provided evidence for the role of L1 transfer. In other words, the Korean-speaking and Russian-

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[5] The participants in Ionin et al. (2008) took part in an oral production test but it was not reported therein.
[6] The results of the Russian-speaking L2 learners of English will not be reported here given that they were similar to the results found amongst the same group of learners in Ionin et al. (2004) (i.e., fluctuation took place).

speaking L2 learners of English do not have articles in their languages; hence, definiteness and specificity, as assumed by Ionin et al. (2004), are not grammaticalized in Korean and Russian. As a result, these learners struggle to assign the accurate setting of definiteness to English articles. Therefore, Ionin et al. (2004) claim that a pattern of fluctuation was observed amongst these learners in the acquisition of definite and indefinite articles in English. On the other hand, in Ionin et al. (2008), the Spanish-speaking L2 learners of English did not fluctuate between the two settings of definiteness and specificity. They in fact performed accurately from the early stages of acquisition apart from some incidences of omission errors with both *the* and *a*, but when used, they were used with the right NP. Ionin et al. (2008) put forward that the results amongst the Spanish group are attributed to L1 transfer. Both the L1 and L2 select the same setting in the ACP. Therefore, the Spanish-speaking L2 learners of English did not need to set/reset the value of this parameter. Further, they attributed the results amongst the Korean and Russian groups to UG-access where they selected both settings, definiteness and specificity, in the ACP in the acquisition of articles in English, until the input led them to the right setting of articles in the target language (i.e., definiteness).

Recall that it has been shown in Chapter 3 that SA and English express the feature [±definite] through articles while they express the feature [±specific] through context. Further, the two languages are similar in terms of the morphological realisation of the feature [+definite] while they are different in terms of the morphological realisation of the feature [-definite]. SA and English express the feature [+definite] through the article *al* (the) and *the* respectively. However, they express the feature [-definite] differently: through the article *null* in SA and the articles *a* and *null* in English based on the type of following noun. Thus, taking into account that Ionin et al. (2004) and Ionin et al. (2008) did not investigate the L2 acquisition of articles in English with indefinite plural and mass NPs, the present study aims to examine the effect of the morphological realisation of the article (i.e., being *null*), on the ACP. This study aims to examine whether the nature of the realisation, being overt or null, plays a role in the L2 acquisition of articles in English by SA L1 speakers, even though the two languages select the same setting of definiteness in the ACP. Note that the SA-English acquisition in the present study is similar to the Spanish-English acquisition in Ionin et al. (2008) in the sense that both languages select the definiteness setting of the ACP. It appears that based on Ionin et al. (2008), the SA-speaking L2 learners of English do not need to set/reset this parameter. Given this, the L2 learners in the present study should not fluctuate

between the two settings: definiteness and specificity in their acquisition of articles in English; hence, they should perform similarly to the Spanish-speaking L2 learners of English in Ionin et al. (2008). However, SA differs from Spanish in the sense that it does not have an overt article for the feature [-definite] whereas Spanish has overt articles for the same feature. Further discussion about the implications of the FH on the present study is provided in Chapter 5.

In order to conduct further examination of the FH and ACP (Ionin, 2003; Ionin et al., 2004), Hawkins et al. (2006) examined the L2 acquisition of definite and indefinite articles in English by Japanese and Greek speakers. This study aimed, first, to examine the FH in new groups of learners whose L1 does not have articles (Japanese); secondly, to examine whether speakers of an L1 with articles that express definite and indefinite (Greek) will show similar fluctuation tendency; finally, to reassess individual performance and its relation to the FH.

The number of participants in this study is 29: 12 Japanese speakers, 12 Greek speakers, and 5 English speakers who serve as a control group. The L2 participants were asked to take the Quick Oxford Placement Test (2001) to determine their proficiency level. Based on this test, they were divided into two proficiency groups: upper intermediate and advanced. Most of these learners were exposed to English in their late teens. Hawkins et al. (2006) use a forced-choice elicitation test, almost identical to the one used in Ionin et al. (2004). The participants were asked to fill in the gaps with the correct article: *a*, *the*, or *null*. The group results of this test showed that the Japanese learners tended to fluctuate in their production of English articles between definiteness and specificity. This suggests that the results are superficially consistent with the FH. Greek learners, on the other hand, did not show any fluctuation in the acquisition of English articles, and this appears to be consistent with results of the Spanish-speaking L2 learners of English in Ionin et al. (2008). Hawkins et al. (2006) claimed that this is consistent with the role of L1 transfer in L2 acquisition (Full Transfer/ Full Access; Schwartz and Sprouse, 1994; 1996).

Hawkins et al. (2006) examined cross-individual performance of the Japanese group and claimed that the results did not provide evidence for FH given that the learners in this group did not just draw on the two choices that have been provided by the ACP. However, they used the interpretable features that are made freely available by UG for representing lexical items. Lardiere and Schwartz (1997) and White (2003) assume that the results of syntactic operations lead to a series of terminal nodes that contain collections of features that lack

phonological entries. These entries are only inserted after all the syntactic operations are applied. Hawkins et al. (2006) argue that the Distributed Morphology Hypothesis (Halle and Marantz, 1993) is an appropriate approach to explain the difference in the performance across the Japanese group. According to this hypothesis, the insertion of a phonological exponent (i.e., a vocabulary item), must involve feature checking with a terminal node. This feature checking does not require that the vocabulary item, for example, the definite article, must completely involve all of the features of the terminal node, in this case D. Nevertheless, the features of this vocabulary item must not be distinct from the features included in the associated terminal node. In other words, for a native English speaker, articles are vocabulary items of category D, and D will create a series of features as in example (3), which has been taken from Hawkins et al. (2006, p.20).

(3) [D, +definite, +singular]   (= '*the*')
     [D, +definite, -singular]   (= '*the*')
     [D, -definite, +singular]   (= '*a*')
     [D, -definite, -singular]   (= '*Ø*')

However, the generalisation of the use of these articles can be stated as follows (taken from Hawkins et al., 2006, p.20):

(4) *a*   ↔   [D, -definite, +singular]
     the   ↔   [D, +definite]
     Ø   ↔   [D]

In the acquisition of English as a second language, L2 learners will differ from each other in determining the features that they identify as relevant for the insertion of the forms of articles. Hawkins et al. (2006) argue that each individual may identify the criterion for the chosen articles. Take the example of participant J5 in Hawkins et al. who chose the articles according to the following generalisation in (5).

(5) *a*   ↔   [-specific, +singular]
     the   ↔   [+specific]
     Ø   ↔   [ ]

The participant, J5, in (5) used the article *the* with any specific NP: this took place in 28/32 cases. He also opted for the article *a* with nonspecific singular NPs: this took place in 7/8

cases. Further, the article *null* appeared with nonspecific plural NPs: this took place in 7/8 cases.

According to Hawkins et al. (2006), the Distributed Morphology Hypothesis (Halle and Marantz, 1993) can provide an explanation for the differences in choosing the articles amongst the Japanese learners, given that the performance of the rest of the Japanese participants can be explained through this hypothesis.

The feature-based account that is proposed by Hawkins et al. (2006) assumes full access to UG. The L2 learners have access to the inventory of features that contain [±definite] and [±specific]. However, the Japanese L2 learners of English are distinct from the native English speakers in their identification of the appropriate features that are associated with the English definite and indefinite articles. Hawkins et al. concluded that FH does not provide an explanation for the differences in performance amongst the Japanese individuals, whereas the feature-based account presented in their study can better explain this phenomenon.

This section has provided some studies that have investigated the FH and the ACP (Ionin, 2003; Ionin et al., 2004) in the acquisition of articles in English by L1 speakers of different languages. There were inconsistent findings in those studies. In particular, Ionin et al. (2004) concluded their study by arguing that Russian-speaking and Korean-speaking L2 learners fluctuated between the two settings: definiteness and specificity in the ACP in the acquisition of articles in English. However, Hawkins et al. (2006) claimed that no fluctuation took place amongst the Japanese-speaking L2 learners in the acquisition of articles in English; rather, the different individual performances are attributed to their own generalization of English articles. What matters to the current study is the consistency found in the results of the Spanish-speaking L2 learners of English in Ionin et al. (2008) and in the results of the Greek-speaking L2 learners of English in Hawkins et al. (2006). Both studies showed that these two L1 groups performed accurately in the acquisition of definite and indefinite articles. Recall that based on the ACP, both languages select the definiteness setting. Recall also that based on the ACP, SA, as shown in Chapter 3, selects the definiteness setting. However, contrary to Spanish and Greek, which express the feature [±definite] through overt items, SA expresses the feature [+definite] through the overt item, article *al* (the), while it expresses the feature [-definite] through the null item, article *null*. Thus, by examining the acquisition of definite and indefinite articles in English by SA L1 speakers, I will be able to investigate the role of null target item in the FH and ACP. Based on the ACP, the SA-speaking L2 learners

of English should transfer the definiteness setting of this parameter from SA to L2 interlanguage in the acquisition of definite and indefinite articles. More illustration about the predicted performance of the L2 learners in the present study from the viewpoint of the ACP is provided in Section 5.2.

4.3.   L2 Acquisition: Feature Reassembly Approach

The aim of this section is to provide some studies that investigate L2 acquisition from the perspective of the feature reassembly approach. These studies investigate L2 acquisition in the light of the FRH (Lardiere, 2008, 2009a, 2009b) and Slabakova's (2009) proposal.

The first study in this section is Sabourin et al. (2006) which examined the L2 acquisition of gender in Dutch by English L1 speakers, L1 speakers of different Romance languages and German L1 speakers. Slabakova (2009) argues that this study provides an ideal example of the three different situations of L2 acquisition provided in the proposed cline of difficulty in L2 acquisition of grammatical features, presented in Figure 2.1 Section 2.3.1, and repeated in Figure 4.1.

Easier to acquire   Harder to acquire
⟵   ⟶

F morpheme	F morpheme	F context
to F morpheme	to F morpheme	to F morpheme
	But reassembly required	No reassembly required

Figure 4.1. A cline of difficulty in grammatical feature acquisition (repeated from Figure 2.1 in Section 2.3.1).

Slabakova (2009) argues that if gender is assumed to be realised through context in English, the L2 acquisition of gender in Dutch by English speakers will represent the situation where the property is realised through context in the L1 while it is realised through a morpheme in the L2. Therefore, she argues that the L2 acquisition of gender in Dutch by English speakers will be the most difficult situation as shown in the cline of difficulty in Figure 4.1. In terms of the Romance language group, Sabourin et al. (2006) argue that gender is realised morphologically; however, this realisation is different from that in Dutch with respect to the agreement patterns. Thus, Slabakova illustrates that the L2 acquisition of gender in Dutch by the Romance language group of speakers represents the situation in the proposed cline of difficulty whereby the L2 acquisition is a process of mapping a morpheme in the L1 to a

morpheme in the L2 input while reassembly is required. She suggests that the L2 acquisition in this situation is predicted to be less difficult than the previous situation which is exemplified through the English-Dutch acquisition of gender. Slabakova also argues that the third situation in the proposal is represented by the German-Dutch acquisition of gender. In this L2 acquisition, gender is realised similarly through morphemes in the two languages. Therefore, this acquisition is predicted to be a process of straightforward mapping while reassembly is not required. Therefore, Slabakova puts forward that the L2 acquisition of Dutch gender by German speakers will be the least difficult in comparison with the previous two L1-L2 acquisitions. The following cline provides the level of difficulty in the L2 acquisition of gender in Dutch by the speakers of these different groups of L1.

Easier to acquire   Harder to acquire

$\longleftarrow$ $\longrightarrow$

L2A of Dutch gender	L2A of Dutch gender	L2A of Dutch gender
by German L1 speakers	by L1 speakers of	by English L1 speakers
	Romance Languages	

Figure 4.2. A cline of difficulty in L2 acquisition of Dutch gender by speakers of different groups of L1.

Sabourin et al. (2006) investigated 24 English-speaking, 21 Romance language-speaking and 25 German-speaking L2 learners of Dutch. A grammatical-judgement test of gender agreement between relativized noun phrases and relative pronouns was administered. Sabourin et al. (2006) found that German-speaking L2 learners of Dutch were the most accurate in the acquisition of gender. The English-speaking L2 learners were the least accurate whereas the Romance language-speaking L2 learners were in the middle in terms of the level of difficulty in the acquisition of gender in Dutch. Slabakova (2009) claims that the results in Sabourin et al. provided evidence for the cline of difficulty in the L2 acquisition of grammatical features presented in Figure 4.1. Slabakova argues that the German-speaking L2 learners of Dutch were more accurate because there is no reassembly is required. This acquisition involves only straightforward mapping of a morpheme in the L1 (German) to a morpheme in the L2 (Dutch). On the other hand, the Romance language-speaking L2 learners of Dutch were less accurate than the German-speaking L2 learners of Dutch because the acquisition involves at first a straightforward mapping of a morpheme in the L1 (Romance languages) to a morpheme in the L2 (Dutch), but then reassembling gender from how it is

morphologically realised in the Romance languages (L1) to the way it is morphologically realised in Dutch (L2). Further, the English-speaking L2 learners of Dutch were the least accurate because the acquisition of gender involves firstly mapping a context in L1 (English) to a morpheme in L2 (Dutch), then reassembling gender from the way it is realised contextually in English (L1) to the way it is realised morphologically in Dutch (L2). Thus, the L2 acquisition of Dutch gender by English L1 speakers appears to be the most difficult in comparison with the other L1-L2 acquisitions (i.e., German-Dutch and Romance languages-Dutch). This is because of the assumption that the English-Dutch acquisition of gender does not involve straightforward mapping of a morpheme in the L1 to a morpheme in the L2, which apparently served as a facilitator in the German-Dutch and Romance languages-Dutch acquisition of gender.

The significance of this study to the present study relies on the effects of the similarities and differences of realising gender in the investigated L1-L2 acquisition combinations. It will be shown in Chapter 5 that there are two main situations in the SA-English acquisition of definite and indefinite articles. These situations vary in terms of similarity between the property to be acquired in English and its closest morphological equivalent in SA. Thus, Sabourin et al. (2006) provided a good example of how the differences of the property to be acquired (e.g., Dutch gender) on the morphological and semantic levels in the L1 and L2 could play an important factor in L2 acquisition.

Another feature reassembly-based L2 acquisition investigation was conducted by Gil and Marsden (2013). Gil and Marsden apply the feature reassembly approach in the findings from different L1-L2 studies in the acquisition of existential quantifiers. To do so, they first propose a feature reassembly-based description of the existential quantifier *any* in English and its close counterparts in Chinese, Korean and Japanese. Following Giannakidou (1997, 2006) who follows Zwarts (1995), Gil and Marsden argue that *any* can be used in non-veridical contexts. They argue that the use of *any* is disallowed in contexts that describe actual events. For this reason, it is possible to use *any* in contexts such as conditionals as in (6a) and interrogatives as in (6b) but it is not allowed, for example, after adverbs of uncertainty as in (6c) even though this sentence in non-veridical.

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(6)

    a. If anyone crosses the finish line, raise the flag.

    b. Did you eat any strawberries yesterday?

    c. *She has probably eaten anything.

<div align="right">(Gil and Marsden, 2013, p.199-120)</div>

Based on the conditions of using *any* in English, Gil and Marsden (2013) suppose that this item bears an uninterpretable non-veridical feature [*u*NV] which according to them can be deleted and checked by a non-veridical operator in CP. Further, they highlight that the use of *any* in some non-veridical environments are disallowed due to some strong restrictions. Examples of these restrictions include the use of *any* after adverbs of certainty (e.g., *probably*) as in (6c) and in the complement of verbs that express non-factiveness (e.g., *assume*). Thus, they represent this restriction through an additional feature α together with the feature [*u*NV]; hence the feature set of *any* will include the features [*u*NV+α].[7] Building on this supposition, Gil and Marsden approach the existential quantifiers in Chinese, Korean and Japanese to discover the feature set for each one of them.

In Chinese, Gil and Marsden (2013) argue that *wh*-expression *shenme* 'who' can function as an existential quantifier as in (8) besides it main function as a *wh*-interrogative as in (7) (See Li, 1992, and Cheng, 1994, for more details).

(7) *Hufei chi-le   shenme   (ne)?*
      Hufei eat-ASP what   WH-Q
      'What did Hufei eat?'   (Cheng, 1994, p.617)

(8) *Ta bu xihuan   shenme.*
      he not like   WHAT
      'He doesn't like anything'   (Li, 1992, p.127)

Further, Gil and Marsden (2013) suggest that the use of *shenme* as an existential quantifier in Chinese is allowed in all non-veridical environments as in (9), contrary to *any* in English

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[7] Gil and Marsden (2013) state that they cannot provide an explanation for the exact nature for the restriction of the use of *any* in some non-veridical environment. They highlight that this should not affect the aim of their study.

which is disallowed in some non-veridical environments as in (6c).[8] The example in (9) is taken from Li (1992, p.131).

(9) *Ta dagai/keneng   xihuan   shenme.*
     he probably   like   WHAT
     'He probably likes something.'

Another existential in Chinese is *renhe*. Gil and Marsden (2013) argue that *renhe* is similar to *any* in English in the sense that both are permitted in non-veridical environments, but with some restrictions as shown in the example in (10) which is taken from Wang and Hsieh (1996, p.46).

(10) *Ta dagai/keneng   xihuan   shenme/*renhe dongxi*
     he probably   like   WHAT/ any   thing
     'He probably likes something/*anything'

Thus, the feature α that represents the restriction found in the use of *any* in English will also be added to the feature [*u*NV] of the *renhe*; hence, the feature set of *renhe* will include the features [*u*NV+α].

In terms of Korean and Japanese *wh*-existentials, Gil and Marsden (2013) argue that they are similar to *wh*-existentials in Chinese as they all make use of *wh*-words to create *wh*-existentials. Nevertheless, Korean and Japanese *wh*-existentials differ from their counterparts in Chinese in terms of their non-restricted use in veridical environments as well as non-veridical environments. Due to the similarity between *wh*-existentials in Korean and Japanese, the description for their shared properties is given for Korean only. Examples of the *wh*-existentials in Korean are provided in (11) and (12) (both examples from Gil and Marsden, 2013, p.124).

(11) *Nwu-ka   sen-ul   nemu-myen,   kispal-ul   tul-era.*
     WHO-NOM   line-ACC   cross-COND flag-ACC   raise-IMPER
     'If anyone/someone crosses the line, raise the flag'

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[8] See Gil and Marsden (2013) for more examples and details of the use of *any* and *shenme* in non-veridical environments.

(12) *Nwu-ka*   *cha-lul*   *masiko*   *isseyo.*

WHO-NOM   tea-ACC   drink   PROG

'Someone (*anyone) is drinking tea'

According to Gil and Marsden (2013), these examples show that *nwukwu* 'who/anyone/someone' is used in non-veridical contexts (e.g., conditional as in [11]), and in veridical contexts (e.g., progressive declaratives as in [12]). The two interpretations of *nwukwu* being an interrogative pronoun or existential quantifier in (11) are determined by different intonations.

Gil and Marsden (2013) argue that the Japanese existential *dare-ka* 'anyone/someone' differs from the Korean existential *nwukwu* 'who/anyone/someone' in one aspect, which concerns its inability to serve as existential without the particle *ka* (i.e., bare *wh*-word). This to say, *nwukwu* in Korean can be interpreted as an existential quantifier or interrogative pronoun based on the intonation of this lexical item. On the other hand, the bare *wh*-word *dare* in Japanese can only serve as interrogative pronoun (who) while it functions as an existential quantifier once it is combined with the particle *ka*.

Following illustration, Gil and Marsden (2013) provide the feature sets of the different existential quantifiers in English, Chinese, Korean and Japanese, which is presented in Table 4.5 which is taken from Gil and Marsden (2013, p.126).

Table 4.5

Feature Sets of any in English and its Close Counterparts in Chinese, Korean and Japanese

English	Chinese			Korean	Japanese
anyone	*shei* 'who'	*shei* 'any/someone'	*renhe* 'any'	*kwukwu* 'who/any/someone'	*dare-ka*$_{DISJ}$ 'any/someone'
$\begin{bmatrix} \varphi \\ u\text{NV}+\alpha \end{bmatrix}$	$\begin{bmatrix} \varphi \end{bmatrix}$	$\begin{bmatrix} \varphi \\ u\text{NV} \end{bmatrix}$	$\begin{bmatrix} \varphi \\ u\text{NV}+\alpha \end{bmatrix}$	$\begin{bmatrix} \varphi \end{bmatrix}$	$\begin{bmatrix} \varphi\text{-}\vee \end{bmatrix}$

Note. DISJ= disjunction feature.

Recall that based on the feature reassembly approach, L2 learners are initially confronted with the first step (i.e., mapping), then, if needed, they are confronted with the second step (i.e., feature reassembly), where they are required to reassemble the feature set of the lexical

item at issue from the way it is in the L1 to the way it should be in the L2. According to the feature-based description of the existential quantifiers provided above in Table 4.5, Gil and Marsden (2013) focus on findings from L2 studies that involve these L1-L2 combinations: English-Korean, English-Chinese, Japanese-Chinese, Chinese-English and Korean-English.

Taking into account the similarities and differences between the existential quantifiers in the aforementioned languages, Gil and Marsden (2013) provided the following sketch in (13) which summarises the possible mappings in the L2 acquisition of existential quantifiers in the L1-L2 combinations provided above. Bear in mind that the arrow in (13) refers to the mapping direction of the lexical items from L2 to L1. These possibilities in (13a-c) are arranged based on the expected level of difficulty, so that (13a) is the most difficult while (13c) is the least difficult. Gil and Marsden argue that mapping in (13a) will be the most difficult given that English-speaking L2 learners of Chinese and Korean must distinguish within the homophonous *wh*-expressions between *wh*-existentials and *wh*-interrogatives. As a result, this might cause a problem in the mapping process. Further, based on Gil and Marsden, the Japanese-speaking L2 learners of Chinese in (13b) will encounter the same problem of homophonic distinction of the target item as the L2 learners in (13a). Nevertheless, these learners are predicted to take advantage of the similarity between Chinese and Japanese in the use of *wh*-existentials which consequently might facilitate the mapping process compared with the English-speaking L2 learners of Chinese and Korean. Finally, the mapping in the Korean-English and Chinese-English acquisition of existential quantifiers in (13c) is predicted to be the least difficult, given that the target item *anyone* is distinct from *wh*-words; thus learners will be able to use the meaning of the target item *anyone* to map it to its equivalent in the L1. This sketch in (13) is taken from Gil and Marsden (2013, p.128).

(13)
      a. L2 Chinese *shei* / L2 Korean *nwukwu* → L1 English *anyone*
      b. L2 Chinese *shei* → L1 Japanese *dare-ka*
      c. L2 English *anyone* → L1 Korean *nwukwu*
                      → L1 Chinese *shei*$_{EXIST.}$/*renhe*

Based on the assumed L1-L2 correspondence provided in (13), Gil and Marsden (2103) present the L1-based feature sets of the existential quantifiers and their counterparts in the target languages which is shown in (14) (taken from Gil and Marsden (2013, p.128).

	(14)	**L1**	**Target**
a.	L1 Japanese–L2 Chinese	φ, ∨	φ, uNV
b.	L1 Korean–L2 English	φ	φ, uNV+α
c.	L1 English–L2 Chinese	φ, uNV+α	φ, uNV
d.	L1 Chinese–L2 English	[φ, uNV], or [φ, uNV+α]	φ, uNV+α
e.	L1 English–L2 Korean	φ, uNV+α	φ

Gil and Marsden (2013) argue that in order to achieve these targets, different feature reassembly processes are needed for each L1-L2 combination. Based on these L1-L2 combinations, it appears that there will be adding and/or deleting of some features to/from the feature set of the existential quantifier that is to be acquired.

The difficulty hierarchy in the two steps: mapping and feature reassembly in the above five L1-L2 combinations in the acquisition of existential quantifiers is schematized in Table 4.6 (taken from Gil and Marsden 2013, p.130).

Table 4.6

Level of Difficulty in the Mapping and Feature Reassembly in the Different L1-L2 Combinations

	Mapping	Feature Reassembly
More difficult ↑ ↓ Less difficult	EC=EK JC KE=CE	JC=KE CE (if CE maps to *wh*-existential) EC=EK CE (if CE maps to *renhe*)

Note. 'EC' = L1 English L2 Chinese; 'EK' = L1 English L2 Korean; 'JC' = L1 Japanese L2 Chinese; 'KE' = L1 Korean L2 English; 'CE' = L1 Chinese L2 English.

In order to investigate L2 acquisition of existential quantifiers in these L1-L2 combinations, Gil and Marsden (2013) examined the findings in Choi (2009) for English-Korean; Yuan (2010) for English-Chinese and Japanese-Chinese; Gil and Marsden (2010) for Korean-English; Gil, Marsden and Whong (2013) for Chinese-English.

According to Gil and Marsden (2013), it appears that the overall results provided evidence for the FRH (Lardiere, 2008, 2009a, 2009b). That is to say, the level of similarity between the target item and its closest equivalent in the L1 on the semantic and morphological levels played a role in the level of difficulty of the property to be acquired in both steps: mapping and feature reassembly. In terms of the mapping step, the findings in the different L1-L2

studies largely supported the predictions of Gil and Marsden (2013). Gil and Marsden argue the findings showed that mapping in the Korean-English and Chinese-English acquisition of *any* was the least difficult given that it is relatively straightforward. Further, they argue that the findings showed that mapping in the English-Korean and English-Chinese acquisition of *wh*-existentials was difficult and this is due to the difficulty in recognising the use of bare *wh*-expressions in *wh*-existentials. However, Gil and Marsden argue that their prediction for the role of morphological similarity between Japanese and Chinese in using *wh*-words as *wh*-existentials in L2 acquisition was not supported. In other words, Gil and Marsden predicted that this morphological similarity will make mapping in the Japanese-Chinese acquisition of *wh*-existentials less difficult than the mapping in the English-Chinese acquisition of *wh*-existentials. The findings showed that mapping in the Japanese-Chinese acquisition of *wh*-existentials was not less difficult than the mapping in the English-Chinese of *wh*-existentials.

In terms of the feature reassembly step, Gil and Marsden (2013) argue that similarity at the semantic level, as well as the effect of poverty of stimulus, play a role in reassembling the feature set of the target item. Additionally, they illustrate that their predictions on the level of difficulty in terms of the feature reassembly process were largely supported. For example, in the Chinese-English acquisition of *any*, the learners mapped English *any* to Chinese *renhe*. As a result, no reassembly was required, leading to target-like performance. This provides evidence of the role similarity at the semantic level in the feature reassembly process. Moreover, there was a delayed feature reassembly in the Korean-English acquisition of *any* compared to the English-Korean acquisition of *wh*-existentials, providing evidence for the role of poverty of stimulus in the feature reassembly.

Gil and Marsden (2013) concluded that the feature reassembly-based approach in the different studies above have shown that the FRH (Lardiere, 2008, 2009a, 2009b) appears to be an ideal tool to explain L2 acquisition.

The present study will examine how the similarities between the definite articles (SA, *al* [the]) and (English, *the*) and the differences between the indefinite articles (SA, *null*) and (English, *a* and *null*) at the semantic and morphological levels could affect the feature reassembly-based developmental pattern in the SA-English acquisition of articles. Further elaboration of this point is presented in Chapter 5.

Another study that investigated Slabakova's (2009) proposal was conducted by Cho and Slabakova (2014). Cho and Slabakova investigate L2 acquisition of definiteness in Russian, an article-less language, by speakers of two languages: English, which encodes definiteness through articles, and Korean, which is an article-less language. This study focuses on investigating L2 acquisition of two unconnected realisations (possessor-modifiers) and (word order) of definiteness in Russian. Cho and Slabakova examine the role of three factors on determining the level of difficulty in L2 acquisition of grammatical features that was originally proposed by Slabakova. These factors are the requirement of reassembly (Lardiere, 2009a), the nature of the realisation of a feature being overt or covert (Slabakova, 2009) and the realisation of the feature being direct and indirect (Cho and Slabakova, 2014). According to Cho and Slabakova, a feature is realised directly if its meaning is the main meaning of this expression. On the other hand, a feature is realised indirectly if its meaning is not the main meaning of this realisation. An example of a direct mapping of one-to-one of form to meaning is the realisation of the feature [definite] in English through articles. On the other hand, demonstrative pronouns in English are arguably examples of indirect realisation of the feature [definite] given that their primary feature is [DEM] (Guisti, 2002).

Definiteness is expressed differently in the three languages in this study. In Russian, there are different mechanisms to express definiteness and two of them are the subject of investigation. The first mechanism is through overt realisation (possessor-modifiers) and the second mechanism is through context (word order) (Apresjan, 1995, cited in Cho and Slabakova, 2014). According to Cho and Slabakova (2014), adjectival possessor-modifiers (adjectival possessors, henceforth) express the feature [-definite] while the postnominal genitive case-marker modifiers (nominal possessors, henceforth) can be interpreted as definite or indefinite based on the context. Examples of this are provided in (15) and (16).

(15) *Za dverju*   *slyšalsja*   *ženskij*   *golos*
     behind door   heard   woman-ADJ.NOM   voice-NOUN.NOM
     'A woman's voice was heard behind the door.'

(16) *Za dverju*   *slyšalsja*   *golos*   *ženščiny*
     behind door   heard   voice-NOUN.NOM   woman NOUN.GEN
     'The voice of a/the woman was heard behind the door.'

(Apresjan, 1995, p.258)

In (15), *ženskij* (woman-ADJ) is a possessor in adjectival form; hence it denotes an indefinite reading (any woman). On the other hand, in (16), *ženščiny* (woman-NOUN.GEN) is a possessor in the noun form and its interpretation can be definite (the woman) or indefinite (a woman) depending on the context.

Korean also expresses definiteness through a similar linguistic phenomenon to that found in Russian. Cho and Slabakova (2014) argue that in Korean, the interpretation of the possessor being definite or indefinite is determined by the characteristics of the morphological realisation of the possessor at issue. That is, nominal possessors are interpreted as indefinite if they are without case as in *yeoja* (a woman) in (17). On the other hand, genitive-marked nominal modifiers can be interpreted as definite or indefinite based on the context as in *yeoja-ui* (a woman/ the woman) in (18).

(17) *yeoja*   *moksori*

       Woman-NOUN.NOM   voice

       'the voice of a woman'

(18) *yeoja-ui*   *moksori*

       woman-NOUN.GEN   voice

       'the voice of a/the woman'

<div align="right">(Cho and Slabakova, 2014, p.167)</div>

Cho and Slabakova (2014) claim that the way the indefinite interpretation is encoded through possessors in Russian is similar to that in Korean. However, the conditioning environments are not identical as the interpretation of the possessor in Russian is encoded by its morphological form (nominal versus adjectival) while the two types of possessors in Korean are nominal. Therefore, the Korean-speaking L2 leaners of Russian will initially map how definiteness is realised in L2 Russian to how it is realised in L1 Korean, then, the learners need to reconsider the different conditioning factors of case marker, position of the possessor and modifier shape to complete target-like representation of the feature [definite] through possessor-modifiers in the L2. In terms of English-speaking L2 learners of Russian, Cho and Slabakova argue that their task is completely different from that predicted for the Korean-speaking L2 learners of Russian, given that the feature [definite] is realised differently in the L1 and L2. Thus, they predict Korean-speaking L2 learners of Russian will outperform the

English-speaking L2 learners of Russian in the acquisition of the feature [definite] through possessor-modifiers.

Cho and Slabakova (2014) also aim to investigate the L2 acquisition of the feature [definite] in Russian, which is realised covertly and indirectly by word order. Before moving on, I first present how word order expresses the feature [definite].

According to Cho and Slabakova (2014), permutations of word order might be used in Russian to provide some information structure requirements as in for example, marking of Topic and Focus. Topicalized constituents mostly involve information that is known by both the speaker and hearer and thus becomes definite, while Focus involves information that is only known by the speaker and thus becomes indefinite. In addition, Topic in Russian is preverbal while Focus is postverbal. For this reason, DPs in the preverbal position are commonly interpreted as definite, while DPs in the postverbal position are commonly interpreted as indefinite (Chvany, 1975; King, 1995; Lambrecht, 2001; Rodionova, 2001). Consider the following examples for illustration:

(19)

    a. *Na stole* [+definite]   *stoja-la*   *lampa* [−def].
       on desk   stand-Past   lamp
       'A lamp was on the desk / there was a lamp on the desk.'

    b. *Lampa* [+definite]   *stoja-la*   *na stole* [−def].
       lamp   stand-Past   on desk
       'The lamp was on a/the desk.'

    c. *Na stole* [+definite]   *lampa* [+definite]   *STOJA-LA* *(a ne leža-la).*
       on desk   lamp   stand-Past (but not lie-Past)
       'The lamp was standing on the desk (it was not laying).'

                                             (King, 1995, p.78)

In (19a), the DP *stole* 'desk' is in the preverbal position and it is interpreted as definite 'the desk' whereas the postverbal DP *lampa* 'lamp' gets an indefinite reading. In (19b), *lampa* 'lamp' is in the preverbal position and it is interpreted as definite while *stole* 'desk' is in the postverbal position and it is interpreted as indefinite. In (19c), both DPs, *stole* 'desk' and *lampa* 'lamp', are preverbal and they are interpreted as definite.

Cho and Slabakova (2014) argue that Korean also uses word order to encode definiteness. Korean is an SOV language. Further, DPs in Korean cannot be in the postverbal position (Suh, 2005). However, Suh argues that scrambled topic object DPs give a definite reading in OSV word order while they are interpreted as indefinite in situ (SOV). For illustration, consider the following examples:

(20)

    a. *gak*   *haksaeng-i*   *gong-ul*   *chat-da*

       each   student-NOM   ball-ACC   kick-PAST

       'Each student kicked balls.'

    b. *gong-ul*   *gak*   *haksaeng-i*   *chat-da*

       ball-ACC   each   student-NOM   kick-PAST

       'Each student kicked the ball.'

<div align="right">(Suh, 2005, p.18)</div>

In (20a), the object nominal *gong* 'ball' remains in situ (SOV) and it is interpreted as indefinite. However, when the same object is scrambled (OSV) in (20b), it gets a definite reading. According to Cho and Slabakova (2014), a generalization for this phenomenon in terms of word order in Korean can be drawn. That is, when DPs are fronted, they are interpreted as definite but when they in situ, they are interpreted as indefinite.

After this illustration about encoding the feature [definite] through word order in Russian and Korean, Cho and Slabakova (2014) argue that, in principle, Russian and Korean are similar in terms of interpreting topicalized object nominals as definite. However, they are different in the sense that subject nominals can be interpreted as definite in Russian when they are preverbal while they cannot in Korean. Further, the position of DPs in terms of verb, preverbal or postverbal, plays a role in the definite and indefinite reading in Russian while this is not allowed in Korean given that DPs, subjects and objects, must be in the preverbal position. According to Cho and Slabakova, it appears that expressing the feature [definite] through word order in Russian and Korean represents the concept of expressing the features indirectly and covertly in languages.

In contrast to Russian and Korean, word order in English functions as an identifier for grammatical functions. That is, word order serves to distinguish between the subjects and

objects as shown in the following two examples, which are taken from Cho and Slabakova (2014, p.168):

(21) The boy hit the dog.

(22) The dog hit the boy.

Cho and Slabakova (2014) argue that L2 acquisition of the feature [definite] in Russian that is expressed through permutations of word order will be very difficult given that this feature is expressed indirectly and covertly. They provide two diametrically opposed predictions. The first prediction is that the similar intrinsic connection between the feature [definite] and its expression in the L1 and L2 will facilitate L2 acquisition. Assuming this, the Korean-speaking L2 learners of Russian will outperform the English-speaking L2 learners of Russian. On the other hand, if the English-speaking L2 learners create a heuristic connection between the feature [definite] and its expression through word order in Russian (assisted by their morphological realisation of this feature in their L1), these learners are predicted to outperform the Korean-speaking L2 learners of Russian.

In order for Cho and Slabakova (2014) to investigate the L2 acquisition of these two mechanisms of expressing the feature [definite] in Russian which is overtly through possessor-modifiers and covertly and indirectly through permutations of word order, 56 Russian speakers (control group), 49 English-speaking L2 learners and 53 Korean-speaking L2 learners took part in this study. The L2 participants were divided into three proficiency group based on their results in TOREL (Test of Russian as a Foreign Language). Cho and Slabakova used a Felicity Judgment test. The following table provides a summary of the results of the L2 participants (taken from Cho and Slabakova, 2014, p.182).

Table 4.7

Contrast within the Learners' Grammar

	Adjectival possessor in [+definite] contexts versus [-definite] contexts	Adjectival versus nominal possessors in [+definite] contexts	OVS word order with [+definite] object versus [-definite] object
English beginner (*n* = 10)	no	yes	yes
English intermediate (*n* = 24)	yes	yes	no
English advanced (*n* = 17)	yes	yes	yes
Korean beginner (*n* = 19)	yes	yes	no
Korean intermediate (*n* = 15)	yes	yes	no
Korean advanced (*n* = 19)	yes	yes	no

Note. yes = significant rating difference between two conditions; no = no significant rating difference.

Cho and Slabakova (2014) argue that the results provide some evidence for the role of L1 transfer in the Korean-Russian acquisition of the feature [definite] that is expressed overtly (adjectival possessors). Also, they argue that this study showed that the English-Russian learners outperformed the Korean-Russian learners in the acquisition of the feature [definite] that is expressed through permutations in word order. They ascribed this to the possible factor of the heuristics connection that English-speaking learners can create between definiteness and word order in Russian. Based on Cho and Slabakova, this factor is aided by the L1 of this group of learners. Cho and Slabakova conclude that the findings suggest the nature of the realisation of the feature being overt or covert, as well as the realisation of the feature directly or indirectly, should be considered as important factors when addressing L2 acquisition from the viewpoint of feature reassembly approach.

This study has shown the significant role of detectability in L2 acquisition. In the present study, I will compare the L2 acquisition of the article *a* that is used with indefinite singular NPs with the L2 acquisition of the article *null* that is used with indefinite plural and mass NPs in order to investigate the role of detectability in L2 acquisition from the perspective of the feature reassembly approach.

4.4. Summary of Chapter 4

This chapter has provided different L2 studies that have investigated the acquisition in the light of the two investigated approaches; parameter (re)setting, which is represented through the FH (Ionin, 2003; Ionin et al., 2004; Ionin et al., 2008), and feature reassembly, which is represented through the FRH (Lardiere, 2008, 2009a, 2009b) and Slabakova's (2009) proposal. The findings of the L2 studies that have investigated the FH have shown that there is morphological variability in the acquisition of definite and indefinite articles in English by L2 learners from article-less languages. In contrast, L2 learners from languages that express definiteness through articles perform accurately from the early stages of acquisition. On the other hand, the findings of the studies that have investigated the FRH and Slabakova's proposal have shown that the feature reassembly approach to L2 acquisition might serve as a promising tool to explain L2 acquisition. Nevertheless, it appears that further feature reassembly-based investigation of L2 acquisition is required in order to have a clearer picture of the mechanisms of this approach. Comparing these two approaches; parameter (re)setting and feature reassembly in the present study shall provide a better understanding of which approach can better explain L2 acquisition.

Chapter 5

Articulation of the Hypotheses

5.1.   Introduction

This chapter provides the hypotheses in the present study which investigates the SA-English acquisition of definite and indefinite articles from the perspective of two different approaches; parameter (re)setting and feature reassembly. The parameter (re)setting approach is represented through the FH (Ionin, 2003; Ionin et al., 2004; 2008) while the feature reassembly approach is represented through the FRH (Lardiere, 2008, 2009a, 2009b) and Slabakova's (2009) proposal. The layout of this chapter is as follows. Section 5.2 articulates the hypothesis based on the FH. Section 5.3 articulates the hypotheses based on the FRH and Slabakova's proposal. Section 5.4 summarises this chapter.

5.2.   Application of the FH in the Current Study

As shown in Chapter 4, SA and English encode definiteness morphologically while they encode specificity contextually. Therefore, from the perspective of the FH (Ionin, 2003; Ionin et al., 2004; 2008), SA and English select the definiteness setting rather than the specificity setting in the ACP. To reiterate, Chapter 3 showed that SA marks the feature [+definite] through the article *al* (the) whereas it marks the feature [-definite] through the article *null*. On the other hand, English marks the feature [+definite] through the article *the* while it marks the feature [-definite] through the articles *a* and *null* based on the type of following noun. Chapter 3 also showed that neither language marks the feature [specific] through articles. Accordingly, similar to the Spanish-speaking L2 learners of English (Ionin et al., 2008), the task of the SA-speaking L2 learners of English is to transfer the definiteness setting of the ACP selected in the L1 to the L2 interlanguage. As a result, based on the parameter resetting approach to L2 acquisition, the SA-speaking L2 learners of English are predicted to transfer the setting of the ACP from the L1 to the L2 interlanguage in the acquisition of the definite and indefinite articles given that L1 transfer should override fluctuation (see Section 4.2 for more details of Ionin et al., 2008).

What follows is the first hypothesis in the present study which is from the perspective of the FH (Ionin, 2003; Ionin et al., 2004; 2008).

(1) Hypothesis: (The Fluctuation Hypothesis; Ionin et al., 2008)

L1 transfer overrides fluctuation in the L2 acquisition of definiteness in English by SA L1 speakers.

(2) Prediction

The SA L2 learners of English will transfer the setting of the ACP (definiteness) from SA to L2 interlanguage in the acquisition of definite and indefinite articles.

The following section describes the application of the FRH (Lardiere, 2008, 2009a, 2009b) and Slabakova's (2009) proposal in the current study.

5.3. Application of the FRH and Slabakova's Proposal in the Current Study

Before articulating the hypotheses from the viewpoint of the FRH (Lardiere, 2008, 2009a, 2009b) and Slabakova's (2009) proposal on the SA-English acquisition of articles, I will discuss the realisation of these articles in SA and English and relate it to the FRH and Slabakova proposal.

As shown in Chapter 3, the feature [+definite] is realised through a morpheme in SA and English, article *al* (the) in SA and article *the* in English. The feature sets of these two articles include one feature: [+definite]. This semantic and morphological consistency in definite articles in SA and English is predicted to facilitate the SA-English acquisition of the definite article. The feature sets of the definite articles in SA and English are presented in (3).

(3) The feature sets of definite articles in SA and English

(SA)   (English)
al (the)   *the*
$\left[+ \text{definite} \right]$ $\left[+ \text{definite} \right]$

On the other hand, the realisation of indefinite articles in SA and English is not identical. In SA, indefinite NPs are preceded by a morpheme (article *null*) (Fassi Fehri, 1993; Sarko, 2009)

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while in English they are preceded by a morpheme, article *a* or article *null*, based on the type of following noun; mass or count and plural or singular (Abney, 1987; Lyons, 1999; Radford, 2005). The feature sets of the different indefinite articles in English and SA are provided in (4).

(4) The feature sets of indefinite articles in English and SA

English *a*	English *null*	English *null*	SA *null*
- definite	- definite	- definite	- definite
+ count	+ count	- count	
[- plural]	[+ plural]		

This illustration in (4) shows that the feature set of the article *null* in SA includes only the feature [-definite]. In contrast, in English, the feature set of the article *a* includes the features [-definite] and [+count [-plural]] whereas the feature set of the article *null* includes the features [-definite] and [+count [+plural]] or [-definite] and [-count].

This illustration of the definite and indefinite articles in SA and English suggests that there are three different feature reassembly-based situations for the SA-English acquisition of articles: (a) acquisition of the article *the* (definite NPs), (b) acquisition of the article *a* (indefinite singular NPs) and (c) acquisition of the article *null* (indefinite plural and mass NPs). The first situation involves just mapping while the second and third involve mapping and feature reassembly. Table 5.1 describes these situations.

Table 5.1

The Different Feature Reassembly-Based Situations of L2 Acquisition in the Present Study

Situation A	Situation B	Situation C
L2A of article *the*	L2A of article *a*	L2A of article *null*
(Definite NPs)	(Indefinite Singular NPs)	(Indefinite Plural and Mass NPs)
morpheme	morpheme	morpheme
to morpheme	to morpheme	to morpheme
al (the) to *the*	*null* to *a*	*null* to *null*
(No reassembly)	(Reassembly required)	(Reassembly required)

Next, I discuss these different situations in relation to Slabakova's (2009) cline of difficulty in L2 acquisition which is repeated in Figure 5.1.

Easier to acquire   Harder to acquire

⟵   ⟶

| F morpheme
to F morpheme | F morpheme
to F morpheme
But reassembly required | F context
to F morpheme
No reassembly required |

Figure 5.1. A cline of difficulty in grammatical feature acquisition (repeated from Figure 2.1).

Based on Slabakova's (2009) proposal, situation A (L2A of article *the* 'definite NPs') in Table 5.1 seems to be represented in Figure 5.1 through the situation in the left-hand side while situations B (L2A of article *a* 'indefinite singular NPs') and C (L2A of article *null* 'indefinite plural and mass NPs') seem to be represented by the situation in the middle in Figure 5.1. Therefore, it is predicted that L2 acquisition in situation A will be less difficult than L2 acquisition in situations B and C given that situation A involves just mapping whereas situations B and C involve mapping and reassembly. Further, due to the difference in the realisation of the two articles, *a* and *null*, I argue in the present study that the higher level of detectability of the article *a* compared to the article *null* will play a role in determining the level of difficulty in the L2 acquisition of these two articles. That is, the mapping and feature reassembly phases will be easier in the L2 acquisition of the article *a* (situation B) compared to the article *null* (situation C) due to the role of detectability of the article *a* compared to the article *null*. For this reason, it appears that a factor responsible for determining the level of difficulty in Slabakova's cline should be added (i.e., the detectability of the target item). In the next paragraphs, I provide the rationale behind this assumption.

Recall first that the FRH (Lardiere, 2008, 2009a, 2009b) argues that L2 learners initially look in L2 input for how the property to be acquired is realised. Then, they map the closest equivalent in L1 to the realisation (X) of the property to be acquired in L2 input. After that, if needed, L2 learners should reassemble the feature set of this property in their interlanguage from the way it is established in the L1 to the way it is required in the L2. Lardiere (2009a) asserts that the detectability of a morphological contrast in L2 input is predicted to facilitate L2 acquisition. She states:

> ….My own view is that any feature contrast that is detectable is, in principle, ultimately acquirable (…) I assume that the basis for detectability is the observation of any formal contrast, such as the difference between *student ~ students*, or *xuesheng ~ xueshengmen* or *haksayng ~ haksayngtul*. In other words, the learner will associate a difference in a minimally contrasting form with some difference in meaning or grammatical function and construct some sort of representation for it. (Lardiere 2009a, p.214)

According to Lardiere (2009a), the detectability of morphological contrast facilitates L2 acquisition. Lardiere argues that there are many factors that determine the level of success of L2 acquisition, and one of them is the rich evidence in L2 input. Lardiere explains that L2 acquisition may or may not be aided by available evidence from the input, which as a result determines the level of success of acquisition.

Building on Lardiere (2009a), one can plausibly assume that an overt phonological exponent such as the article *a* is more detectable than a null phonological exponent such as the article *null*. Therefore, a factor of detectability of the target item which might determine the level of difficulty should be added to Slabakova's (2009) cline so it can account for the difference between the L2 acquisition of overt and null phonological exponents of any morpheme. That is, it is predicted that the mapping and feature reassembly in situations B (L2A of article *a* 'indefinite singular NPs') will be less difficult than the mapping and feature reassembly in situation C (L2A of article *null* 'indefinite plural and mass NPs') and this is due to the role of detectability of the article *a* compared to the article *null* in L2 input. Thus, the L2 acquisition of article *a* is predicted to be less difficult than the SA-English acquisition of article *null*.

Furthermore, building on Lardiere (2009a), L2 learners are expected to distinguish singular nouns from plural nouns in English through the morphological contrast between these two types of nouns. That is to say, these learners are predicted to find a morphological contrast between singular and plural nouns by detecting the plural-marking morpheme '-*s*', for instance, in the contrast between *student* and *students*. On the other hand, mass nouns in English do not have a mass-marking morpheme. In other words, mass nouns are identical to singular nouns on the morphological level. Moreover, some mass nouns in English are considered count nouns in SA such as *evidence*, which is a mass noun in English while it is a count noun in SA (*ethbat* [**an evidence*]- *ethbat-at* [**evidence-s*]). Thus, it appears that the feature [-count] is language specific (Kulkarni, Rothstein and Treves, 2013). An important

question arises now: will the absence of the mass-marking morpheme in mass nouns in English make the SA-English acquisition of the article *null* when used with indefinite mass NPs more difficult than the acquisition of the article *null* when used with indefinite plural NPs? This study will address this question.

To reiterate, Slabakova (2009) proposes the cline of difficulty in L2 acquisition based on a study that investigates L2 acquisition of a property that is expressed either by morphemes or by context. Slabakova refers to Sabourin et al. (2006) which investigates L2 acquisition of gender in Dutch by speakers of three L1s; English speakers, speakers of different Romance languages and German speakers. Gender is realised either through morphemes or through context in these different languages. Slabakova concludes that the L2 acquisition of features realised morphologically is less difficult than the L2 acquisition of features realised contextually, which is due to the role of detectability (for more details, see Section 4.3). I argue in the present study that the phonological nature of any given morpheme should be taken into account in predicting the level of difficulty in L2 acquisition. Thus, an extension of Slabakova's proposal should be made so it can differentiate between situation B and situation C in Table 5.1. The rationale behind extending Slabakova's proposal is provided below.

According to Slabakova (2009), the difference between the L2 acquisition in the situation on the left-hand side and the situation in the middle in Figure 5.1 relies on the requirement for feature reassembly. Therefore, the two situations appear identical with respect to the mapping phase as both situations involve mapping a feature realized morphologically in L1 to the same feature which is also realised morphologically in L2 input. However, they differ in the level of difficulty because of the requirement for feature reassembly, as the situation on the left-hand side in Figure 5.1 does not require it, whereas the situation in the middle of the same Figure requires it. As a result, mapping should not be involved in determining the level of difficulty in L2 acquisition due to the consistency of the mapping phase in these two situations. Thus, based on this cline in Figure 5.1, mapping should emerge at the same time in the left-hand side situation and in the middle situation.

As stated previously, it seems that situation A (L2A of article *the* used with definite NPs) in Table 5.1 is represented by the situation on the left-hand side of the cline in Figure 5.1. In this situation, both morphemes (articles) are overt in SA and English. Further, the feature sets of the two articles; *the* in English and *al* (the) in SA are identical as they include only the feature [+definite]. Thus, the SA-English acquisition of the article *the* is predicted to be a

straightforward mapping task of a morpheme in L1 *al* (the) to a morpheme in L2 input *the* with no-reassembly required. Also, it appears that situation B (L2A of article *a* used with indefinite singular NPs) and situation C (L2A of article *null* used with indefinite plural and mass NPs) in Table 5.1 is represented by the middle situation in Figure 5.1. In these two situations, the feature [-definite] is realised through a morpheme in both languages (i.e., article *null* in SA and article *a* and *null* in English). However, in the present study, I argue that the difference in the nature of the phonological realisation of the article *a* compared to the article *null* in L2 input (English), being more detectable, is predicted to ease the mapping and feature reassembly phases. For this reason, although the L2 acquisition in situations B and C are represented by the middle situation in Slabakova's (2009) cline of difficulty in L2 acquisition, it appears that an extension of this situation needs to be applied in order to differentiate between L2 acquisition in these two situations. Note that, from the feature reassembly viewpoint to L2 acquisition, the SA-speaking L2 learners of English in situation B will initially map the article *null* in SA which bears the feature [-definite] to the article *a* in L2 input. Then, these learners need to reassemble the feature set of the article *a* in their interlanguage form the way it is established in SA, (i.e., [-definite]), to the way it is required in English (i.e., [-definite] and [+count [-plural]]). In terms of the L2 acquisition in situation C, these learners are predicted initially to map the article *null* in SA which bears the feature [-definite] to the article *null* in L2 input. After that, these learners need to reassemble the feature set of the article *null* in their interlanguage from the way it is established in SA, (i.e., [-definite]), to the way it is required in English, (i.e., [-definite] and [+count [+plural]] or [-definite] and [-count] based on the type of following noun, count plural or mass.

To sum up, it appears that the role of detectability of the target item should be taken into account in predicting the level of difficulty from the perspective of Slabakova's (2009) proposal. Figure 5.2 presents an extended version of Slabakova cline of difficulty which includes the different L2 acquisition situations in the current study.

Easier to acquire		Harder to acquire
F morpheme to F morpheme	F morpheme to F morpheme But reassembly required	F context to F morpheme No reassembly required

| Situation A L2A of article *the* Mapping *al* (the) SA to *the* L2 input No reassembly required | Situation B L2A of article *a* Mapping *null* SA to *a* in L2 input But reassembly required | Situation C* L2A of article *null* Mapping *null* SA to *null* in L2 input But reassembly required | ** |

Figure 5.2. An Extended version of Slabakova's cline of difficulty in grammatical feature acquisition.

Note. *Situation C is predicted to be more difficulty than situation B due to the role of detectability of the target item.
** This situation is not covered in the present study due to the nature of the realisation of definiteness and specificity in SA and English. However, Samoan-English acquisition of definiteness appears to be an ideal example of situation (iv), given that definiteness is realised contextually in Samoan while it is realised morphologically in English (see Ionin et al. [2004] for illustration of the realisation of definiteness in Samoan).

The aim of the following section is to illustrate the mechanism of L2 acquisition in the present study from the viewpoint of the FRH (Lardiere, 2008, 2009a, 2009b) and Slabakova's (2009) cline of difficulty in L2 acquisition presented in Figure 5.2.

5.3.1. Mechanism of feature reassembly-based SA-English acquisition of definite and indefinite articles.

In the present study, there are three different situations as presented in Table 5.1 above: Situation A (L2A of article *the* used with definite NPs), situation B (L2A of article *a* used with indefinite singular NPs) and situation C (L2A acquisition of article *null* used with indefinite plural and mass NPs). To reiterate, situation A is represented in Slabakova's cline of difficulty by the situation on the left-hand side while situations B and C are represented by the situation in the middle in the same cline in Figure 5.2.

With respect to situation A (L2A of article *the* used with definite NPs), the SA-speaking L2 learners of English are confronted with only one task, which is mapping. These L2 learners are predicted to map the article *al* (the) in SA to the article *the* in the L2 input with no reassembly required. The mapping in situation A is provided in (5).

(5) Mapping in the SA-English acquisition in situation A

L1 (SA)   L2 (English)

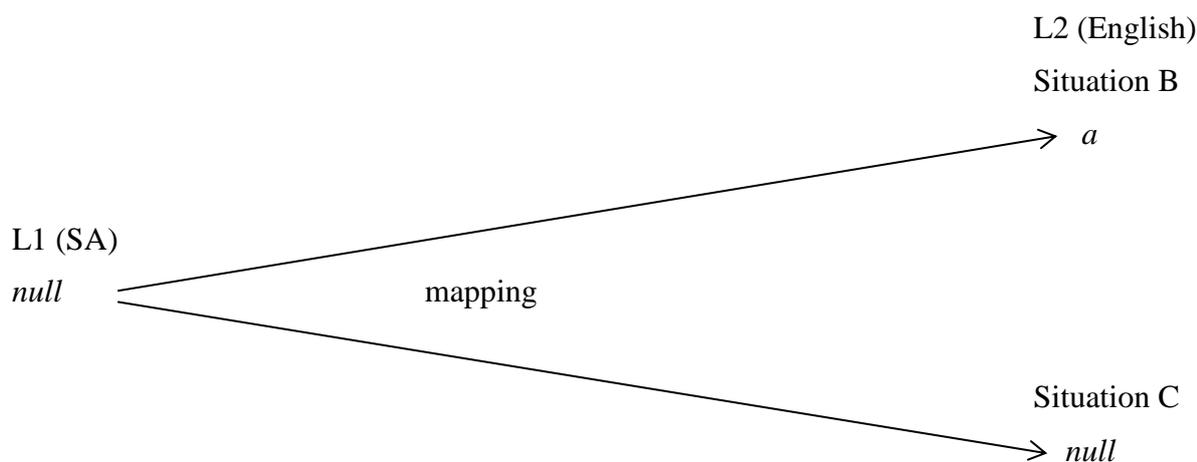*al* (the) ————————————————→ Mapping ————————————————→ *the*

Due to the mapping in (5), the feature set of the article *the* in the L2 learner's interlanguage is predicted to be identical to the feature set of the article *al* (the) in the L1; hence, it will include the feature [+definite]. As a result, high target mean usage rates of the article *the* are predicted to be observed with definite NPs. At the same time, low mean usage rates of the nontarget articles *a and *null are predicted to be observed with the same NPs. The sketch in (6) provides the consequences of the mapping in (5).

(6) The consequences of mapping in the SA-English acquisition in situation A

$$\left(\begin{array}{c} \text{Mapping} \\ al \text{ (the) (SA) to} \\ the \text{ (L2 input)} \end{array} \right) \longrightarrow \left(\begin{array}{c} \text{High use of } the \\ \text{with definite NPs} \end{array} \right) \longrightarrow \left(\begin{array}{c} \text{Low use of} \\ a \text{ and } null \\ \text{with definite NPs} \end{array} \right)$$
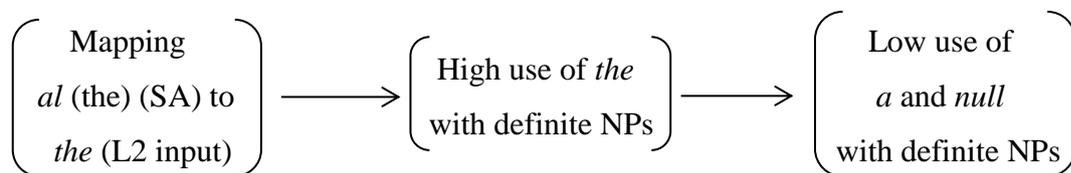
With respect to situation B (L2A of article *a* used with indefinite singular NPs) and C (L2A of article *null* used with indefinite plural and mass NPs), the SA L2 learners of English are predicted to be confronted with two tasks: mapping and feature reassembly. The mapping process in situations B and C is provided in (7).

(7) Mapping in the SA-English acquisition in situations B and C

                                                       L2 (English)

                                                       Situation B

                                                         → *a*

L1 (SA)

null ⟨————————— mapping

                                                        Situation C

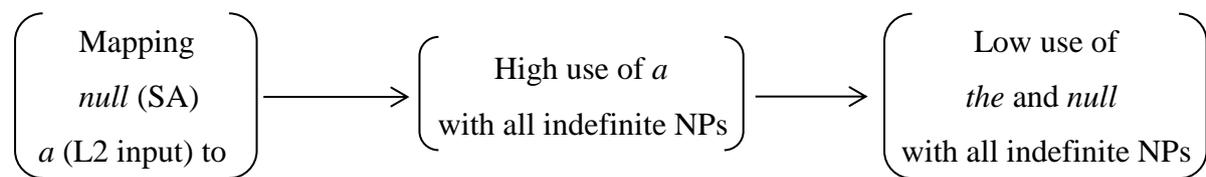   → *null*

Due to the role of detectability, it is argued that mapping in situation B (article *null* in SA to article *a* in L2 input) is predicted to emerge earlier than mapping in situation C (article *null* in

SA to article *null* in L2 input). Recall that the mapping in situation B is predicted to occur at the same time as the mapping in situation A due to the similar level of detectability of the two articles, *the* and *a*.

Based on feature reassembly-based L2 acquisition, the mapping in situation B in (7) is predicted to lead the feature set of the article *a* in the SA-English learner's interlanguage to be identical to the feature set of the article *null* in SA. This means that the feature set of the article *a* at this stage will include only the feature [-definite]. Therefore, this is predicted to lead to high target mean usage rate of the article *a* with indefinite singular NPs. At the same, the feature set of the article *a* is predicted to lead to high nontarget mean usage rate of the article **a* with indefinite plural and mass NPs. Further, the mapping in situation B in (7) is predicted to lead to low mean usage rate of the article **the* with all indefinite NPs. At the same time, low mean usage rate of the article *null* is predicted to be observed with all indefinite NPs. The consequences of the mapping in situation B presented in (7) are provided in the sketch in (8).
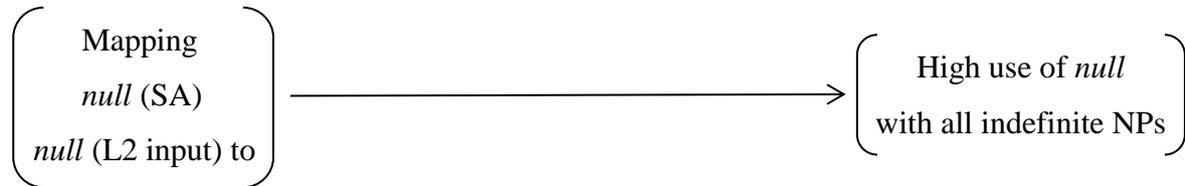
(8) The consequences of mapping in the SA-English acquisition in situation B

$$\left(\begin{array}{c} \text{Mapping} \\ \textit{null}\ \text{(SA)} \\ \textit{a}\ \text{(L2 input) to} \end{array}\right) \longrightarrow \left(\begin{array}{c} \text{High use of } \textit{a} \\ \text{with all indefinite NPs} \end{array}\right) \longrightarrow \left(\begin{array}{c} \text{Low use of} \\ \textit{the}\ \text{and}\ \textit{null} \\ \text{with all indefinite NPs} \end{array}\right)$$

With respect to the mapping in situation C (L2A of article *null* used with indefinite plural and mass NPs) provided in (7), it is predicted to lead the feature set of the article *null* in the L2 learner's interlanguage at this stage to include the same feature set as the article *null* in SA: the feature [-definite]. This is predicted to lead to high target mean usage rate of the article *null* with indefinite plural and mass NPs. At the same time, it is predicted to lead to high mean usage rates of the article **null* with the indefinite singular NPs. The high mean usage rate of the article *null* with all indefinite NPs is predicted to be nearly equal to the high mean usage rate of the article *a* with the same NPs, as both these articles have the same feature set at this stage. Based on the FRH, it appears that that the two articles will be used interchangeably with all indefinite NPs. Recall that the mapping in situation B is predicted to emerge before that in situation C due to the higher level of detectability of the article *a* compared to the article *null*. As a result, the high mean usage rate of the article *a* with all indefinite NPs is predicted to be observed earlier than that of the article *null* with the same

NPs. With respect to the use of the article *the with the indefinite NPs, the mapping in situation C in (7) is predicted to have little or no effect on the mean usage rate of this article, as it already has decreased as a result of the mapping that occurred in situation B shown in (7). The consequences of the mapping in situation C in (7) are presented in the sketch in (9).

(9) The consequences of mapping in the SA-English acquisition in situation C

$$\begin{pmatrix} \text{Mapping} \\ null \text{ (SA)} \\ null \text{ (L2 input) to} \end{pmatrix} \longrightarrow \begin{pmatrix} \text{High use of } null \\ \text{with all indefinite NPs} \end{pmatrix}$$

The second task in the SA-English acquisition in situations B and C is feature reassembly. In terms of situation B, SA-speaking L2 learners are predicted to reassemble the feature set of the article *a* in their interlanguage, which only includes the feature [-definite], to the form the feature set of the indefinite article *a* is in English. That is, these learners are required to add the features [+count [-plural]] to the feature set of the article *a* in their interlanguage. Note that evidence in L2 input is expected to play a role in the learner's recognition of singular nouns; thus, adding these features to the feature set of the article *a* should not post any learnability difficulties. The task of the feature reassembly of the article *a* is provided in (10). The features [+count [-plural]] in the feature set of the article *a* below are written in bold to refer to the process of adding these features.

(10)   Reassembly of the feature set of the article *a* in situation B

$$\begin{matrix} a \\ \begin{pmatrix} \text{- definite} \\ \text{+ \textbf{count}} \\ [\text{- \textbf{plural}}] \end{pmatrix} \end{matrix}$$
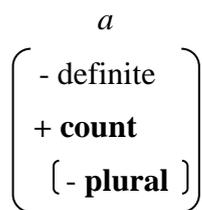
As a result of the feature reassembly in (10), an increase in the mean usage rate of the target article *a* is predicted to be observed with indefinite singular NPs. At the same time, a decrease in the mean usage rate of the article *a* is predicted to be observed with indefinite plural and mass NPs, given that the feature set of the article *a* is specified for the features [+count [-plural]] at this stage.

In terms of the feature reassembly in situation C, SA-speaking L2 learners are predicted to reassemble the feature set of the article *null* in their interlanguage, which only includes the

feature [-definite], to the form the feature set of the article *null* is in English. This reassembly involves adding the following features to the feature sets of the article *null*: [+count [+plural]] and [-count]. Due to the available evidence in L2 input, the SA-speaking L2 learners of English should recognise plural and mass nouns; hence, they should not encounter difficulties in adding these features to the feature set of the article *null*. The feature reassembly of the article *null* in the SA-English acquisition of the article *null* is provided in (11). Note that the features [+count [+plural]] and [-count] in the feature sets of the article *null* are written in bold to refer to the process of adding these features.

(11)　Reassembly of the feature sets of the article *null* in situation C

$$
\begin{array}{ll}
null \text{ 'Plural NPs'} & null \text{ 'Mass NPs'} \\
\begin{bmatrix} \text{- definite} \\ \textbf{+ count} \\ \begin{bmatrix} \textbf{+ plural} \end{bmatrix} \end{bmatrix} &
\begin{bmatrix} \text{- definite} \\ \textbf{- count} \end{bmatrix}
\end{array}
$$

The feature reassembly in (11) is predicted to lead to an increase in the mean usage rates of the target article *null* with indefinite plural and mass NPs. At the same time, this feature reassembly is predicted to lead to a decrease in the mean usage rates of the article *null with indefinite singular NPs, given that the feature set of the article *null* at this stage is specified for the features [+count [+plural]] and [-count].

The mechanisms of feature reassembly-based acquisition have been illustrated above for the three situations in the present study. Before introducing the rest of the hypotheses in the present study, which are based on the FRH (Lardiere, 2008, 2009a, 2009b) and the extended version of Slabakova's (2009) cline of difficulty in L2 acquisition, I remind the reader of the sequence of mapping in the SA-English acquisition of the different articles in the present study. Based on the FRH, it is assumed that the first step in L2 acquisition is mapping (i.e., L1 transfer). I have argued that mapping will not be observed in the three different situations at the same time. That is, mapping in situations A (L2A acquisition of article *the* used with definite NPs) and B (L2A acquisition of article *a* used with indefinite singular NPs) will be observed earlier than mapping in situation C (L2A of article *null* used with indefinite plural and mass NPs) due to the role of detectability of the target item. That is, the articles *the* and *a* are more detectable than the article *null*. Therefore, the sequence of

mapping will be as follows: The mapping in situations A and B and then the mapping in situation C.

What follows is the hypothesis in the present study based on the FRH (Lardiere, 2008, 2009a, 2009b):

(12)   Hypothesis: (The Feature Reassembly Hypothesis; Lardiere, 2008, 2009a, 2009b)

SA-speaking L2 learners of English will find the acquisition of the definite article *the* less difficult than the acquisition of indefinite articles *a* and *null*.

The following is a subhypothesis of the hypothesis in (12). This subhypothesis is based on the extended version of Slabakova's (2009) cline of difficulty in L2 acquisition which is provided in Figure 5.2.

(13)   Hypothesis: (The extended version of Slabakova's Proposal, 2009)

SA-speaking L2 learners of English will find the acquisition of the definite article *the* the least difficult compared to the acquisition of the indefinite articles *a* and *null*. Further, they will find the acquisition of the article *a* less difficult than the acquisition of the article *null*.

(14)   Prediction: Situation A – Mapping the article *al* (L1) to the article *the* (L2 input)

-   With definite NPs: High usage rate of the target article *the* is predicted to be observed.

(15)   Prediction: Situation B – Mapping the article *null* (L1) to the article *a* (L2 input)

-   With indefinite singular NPs: High usage rate of the target article *a* is predicted to be observed.
-   With indefinite plural and mass NPs: High usage rate of the article **a* is predicted to be observed.

(16)   Prediction: Situation C – Mapping the article *null* (L1) to article *null* (L2 input)

-   With indefinite plural and mass NPs: High usage rate of the target article *null* is predicted to be observed.
-   With indefinite singular NPs: High usage rate of the article **null* is predicted to be observed.

(17) Prediction:

- Mapping in situation A in (14) and situation B in (15) will emerge before mapping in situation C in (16).

(18) Prediction: Situation B – Reassembly of the feature set of the article *a*

- With indefinite singular NPs: An increase in the mean usage rate of the target article *a* is predicted to be found.
- With indefinite plural and mass NPs: A decrease in the mean usage rate of the article *a is predicted to be found.

(19) Prediction: Situation C – Reassembly of the feature set of the article *null*

- With indefinite plural and mass NPs: An increase in the mean usage rate of the target article *null* is predicted to be found.
- With indefinite singular NPs: A decrease in the mean usage rate of the article *null* is predicted to be found.

Now, I present the research question which addresses the role of the absence of a mass-marking morpheme in mass nouns in the SA-English acquisition of the article *null* that is used with indefinite mass NPs.

(20) Research Question

Will SA-speaking L2 learners of English consider mass NPs as singular NPs due to the absence of a mass-marking morpheme in mass nouns in English?

(21) Hypothesis

Absence of a mass-marking morpheme in mass nouns in English plays a role in the SA-English acquisition of the article *null* that is used with indefinite mass NPs.

(22) Prediction

- SA-speaking L2 learners of English will consider indefinite mass NPs as indefinite singular NPs. Thus, they will overuse the article *a with indefinite mass NPs in English.

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-    SA-English acquisition of the article *null* that is used with indefinite mass NPs will be more difficult than that acquisition of the article *null* that is used with indefinite plural NPs.

5.4.   Summary of Chapter 5

This chapter has provided the different hypotheses in the present study. It has also shown that Slabakova's (2009) cline of difficulty in L2 acquisition should be extended to account for difference between the SA-English L2 acquisition of the indefinite article *a* and acquisition of the indefinite article *null*. For this reason, I provided another factor which concerns the role of null versus overt target items, which arguably plays a role on the level of difficulty in L2 acquisition. Moreover, I raised the question of the role of the absence of a mass-marking morpheme in mass nouns in the SA-English acquisition of the article *null* that is used with indefinite mass NPs. This chapter has also presented the mechanisms of the feature reassembly-based SA-English acquisition of the different articles; *the*, *a* and *null*.

Chapter 6

Methodology

6.1.   Introduction

This chapter describes the methodology used in the present study, which includes an overview of the tests used, details of the participants and the procedure of administering the tests to the participants. The layout of this chapter is as follows: Section 6.2 presents the test instruments. Section 6.3 provides information about the participants. Section 6.4 sheds light on the procedure of this experiment while Section 6.5 summarises this chapter.

6.2.   Test Instruments

In the present study, there were three different tests; the Oxford Quick Placement Test (OQPT; 2001), a forced-choice elicitation test (FCET) and a written translation test (WTT). Note that a pilot study was conducted on five SA-speaking L2 learners of English and the results indicated that no amendments were needed to the WTT or FCET.

The following sections provide a detailed overview of these different tests.

6.2.1. The Oxford Quick Placement Test (2001).

The OQPT is used to gauge participants' proficiency level. This test divides second language learners of English into six proficiency levels: beginner, elementary, lower intermediate, upper intermediate, advanced and very advanced as shown in Table 6.1.

Table 6.1

OQPT (2001) Proficiency Levels and their Score Range

Level	Score Range (out of 60)
Beginner	0 - 17
Elementary	18 - 29
Lower Intermediate	30 - 39
Upper Intermediate	40 - 47
Advanced	48 - 54
Very Advanced	55 - 60

What follows is an overview of the primary test in the present study which is the FCET.

6.2.2. The forced-choice elicitation test.

The primary test in the present study, FCET, is similar to the test which was originally used in previous studies (e.g., Hawkins et al., 2006; Ionin et al., 2004 and Snape, 2006). The aim of this test was firstly, to compare the SA-speaking L2 learners' performance in the acquisition of the definite article with the acquisition of the indefinite articles in English. This comparison will be discussed from the perspective of the FH (Ionin, 2003; Ionin et al., 2004; 2008) as well as the FRH (Lardiere, 2008, 2009a, 2009b). The second aim of this test was to compare the performance of the L2 learners across the acquisition of the different articles in English: *the*, *a* and *null*. This comparison will be discussed in light of the FRH and the extended version of Slabakova's (2009) cline of difficulty in L2 acquisition. The rationale behind using a FCET is to offer the researcher maximum control over the tested properties. In other words, the restrictions on the participants' responses will help to examine the proposed hypotheses in the present study.

There were 60 items in this test, which is less than the number of items in the similar test in previous studies. In the previous studies that used the FCET, the researchers' objectives were to investigate L2 acquisition of different properties, such as genericity and scope. However, the present study aims to investigate fewer properties in comparison with the previous studies; hence, irrelevant items were excluded from the FCET in the present study.

The test items in the FCET were divided into five types: definite (20 items), indefinite singular (10 items), indefinite plural (10 items), indefinite mass (10 items) and test items on the mass/count distinction (10 items). The indefinite plural and mass items were added to the FCET in the current study to investigate the SA-English acquisition of the article *null* that is used with indefinite plural and mass NPs. Further, the test items on mass/count distinction were included to investigate the L2 participant's ability to differentiate between count and mass nouns (more details about these items are presented later in this section).

The items in this test were randomly distributed and presented in the form of a short dialogue. At the end of each dialogue, a target sentence was given, with a blank space preceding the NP. The participants were provided with three different choices (---*, a/an, the*) and they were asked to choose what they thought it was the most appropriate choice. The participants were told that the (---) choice means that no article is required with the NP in question. The following is an example of one of the test items in the FCET (item 14 in the original test):

(1) A: Mom! Where did you put my cap?

    B: Which cap do you mean?
    A: I mean (---, a, an, the) cap that has 'NIKE' written on it.

The context of the dialogue that preceded each target sentence was in English. The reason I presented these dialogues in English rather than Arabic was to see whether the L2 participants were able to interpret the context appropriately. In other words, if the L2 participants were provided with an Arabic context, this might lead them to differentiate between the definite and indefinite contexts more easily. Consequently, this might affect my conclusion on comparing the L2 acquisition of definite and indefinite articles.

This test was given to three native speakers of English before administering it in the main study. The responses for each item were checked in order to ensure that items tested the intended NP type. Some feedback was provided by those native speakers of English; accordingly, some modifications were made.

What follows is an example for each item type in the FCET:

(2) Definite item type:

    A: I bought some shoes online, but they were damaged on arrival.

    B: Oh, dear. What did you do?

    A: I went to the shop and asked _____ (---, a/an, the) *manager* for my money back.

(3) Indefinite singular item type:

A: I was very hungry last night.

B: Didn't you find anything to eat in the fridge?

A: Yes! I found _____ (---, a/an, the) *banana* in the fridge and I ate it but it didn't really help.

(4) Indefinite plural item type:

A: I have just moved to a new house.

B: That's great news. How is it?

A: It is fully furnished and I like it. I just need to buy _____ (---, a/an, the) *tea-tables* to put in the living room.

(5) Indefinite mass item type:

A: I am sure that John is the killer.

B: Do you have_____ (---, a/an, the) *evidence* for your claim?

A: No!

(6) Test item type (mass/count distinction):

Waiter: What do you want for dinner, Sir?

Customer: I want to have (*a dish of rice – a rice – rices*).

Recall that one of the goals of this study is to examine and compare the SA-English acquisition of the different articles in English that are used with different NPs: definite, indefinite singular, indefinite plural and indefinite mass. The first four test item types (2-5) were used to examine the acquisition of articles with the different types of NPs; definite, indefinite singular, indefinite plural and indefinite mass. The test item type represented by the example in (6) was designed to measure the participants' ability in distinguishing between count and mass nouns. This item type was in the form of a dialogue. At the end of each dialogue, a target sentence was given. The participants were provided with three different choices and they were asked to choose what they thought it was the most accurate answer. The choices were in the form of *measure noun phrase* (target) as in *a dish of rice*, **singularized mass noun phrase* as in **a rice* or **pluralized mass noun phrase* as in **rices* as shown in (6).

The following section gives background of the third test in the present study, the WTT.

6.2.3. The written translation test.

This test was designed to complement the FCET in terms of comparing the L2 participants' performance across the acquisition of the different articles in English. In particular, the WTT was designed to offer a clearer picture of how and when mapping occurs. That is, given that the context in this test is in Arabic, the SA-speaking L2 learners of English, specifically in the lower proficiency groups, would have the chance to interpret the context appropriately, contrary to the FCET where the context is in English. Thus, observation of the mapping process is predicted to be clearer in the results of the WTT compared to that in the FCET. The WTT will also help control the participants' responses over the context type. For example, in a written production test, participants may not produce the type of NPs which are intended to be examined if they are given the freedom to write, for instance, an answer for a particular question. That is, the participants may produce more definite NPs compared to indefinite NPs or they may produce more indefinite singular NPs compared to indefinite mass NPs. Contrary to the FCET, the WTT would not offer a clue of the examined property as there were no choices (i.e., articles) to choose from as in the FCET.

The WTT comprised 30 Arabic items: 15 definite and 15 indefinite. The indefinite items were divided into three types: singular, plural and mass with five items for each type. These items were distributed randomly and in the form of a context which had a target sentence in brackets, and the L2 participants were asked to translate the bracketed sentence from Arabic to English. The following is an example of the WTT (item 14 in the original test). Note that this item was in Arabic but it is translated into English in order to clarify to the reader.

(7) Context: Ahmed has just got back form a holiday in the U.K.

Sami: How was the weather in the UK, Ahmed?

Ahmed: (The weather was cold.)

Before administering this test in the present study, this test was given to a certified translation centre in Riyadh, Saudi Arabia to confirm the grammaticality of the items in this test. Some feedback was provided by this centre which mainly concerned the structure of the items. Accordingly, some modifications were made to this test. Examples of the different items are provided in (8-11).

(8)   Definite:

Context: Abdullah enters Ahmed's house.

Ahmed: Finally, I found a car that I like and I bought it. Have you seen it outside?

Abdullah: Yes, Ahmed. (I have seen the car outside and it looks beautiful.)

(9)   Indefinite singular:

Context: Abdullah is hungry and tries to find something to eat.

Ahmed: Have you found anything to eat in the fridge?

Abdullah: (Yes, I have found an apple.)

(10) Indefinite plural:

Context: Abdullah has just got back from the stationery store.

Ahmed: Have you bought anything from the stationery store?

Abdullah: (Yes, I bought pens.)

(11) Indefinite mass:

Context: Ahmed and Abdullah are cooking.

Ahmed says to Abdullah: (This recipe needs butter.)

The following section provides the background of the participants in this study.

6.3.   The Participants

This was a cross-sectional study as the L2 participants were divided into different levels of proficiency (more details of these proficiency levels are provided later in this section). In the present study, there were 128 participants; 123 SA L1 speakers and 5 native speakers of English who served as a control group. Before providing details about these participants, I first present the L2 participants' background in English. Further, I present some information about how articles are taught in schools in Saudi Arabia.

The first exposure to English of students in the Saudi Arabian educational system is in the sixth grade, at the age of around thirteen. The pupils continue studying English in public schools until the twelfth grade. The year is divided into two terms. Each term consists of about sixteen weeks. In the sixth grade, there are two sessions of English every week and each session lasts for forty-five minutes. The total number of sessions in an educational year in the sixth grade is about sixty-four. In the intermediate and secondary levels, which consist

of six years, there are four sessions a week. Therefore, pupils attend about one hundred and twenty eight sessions in each educational year that they spend in the intermediate and secondary school.

Turning now to how articles in English are taught in schools in Saudi Arabia. The rules of using articles in English are taught explicitly in the sixth and seventh grades. In the sixth grade, pupils are taught the rules of using indefinite articles. Two sessions are dedicated to introducing the indefinite articles, *a/an* and *null*, to the pupils. Teachers instruct the pupils to firstly recognise indefinite articles through presenting objects on posters, and informing the pupils what is in the poster by saying, for instance, '*This is a book.*' The pupils are asked then to repeat what they hear. They are then motivated to answer questions such as '*What is this*?', which are introduced by the teacher while he/she points to an object. This kind of questions elicits the students to answer, for example, '*This is a pen*'. Later on, posters that contain pictures of countable objects such as *pens* and *oranges* are presented. The teacher then instructs the pupils to form plurals noun by adding '*-s' to* singular nouns. The teacher then points to these objects and says for example *pens*, then points to singular objects and says for example *a pen*. The teacher consequently instructs the pupils in using the article *a/an* with indefinite singular NPs and to use the article *null* with indefinite plural NPs. The teacher then encourages the pupils to practise producing indefinite singular and plural NPs by asking them to describe what is in the classroom. It is noteworthy to say that the rules of using the definite article are not introduced in this grade. In the seventh grade, teachers continue introducing the rule of using indefinite articles to the pupils, explaining that they are used if a person wants to talk about something for the first time as in the example '*This is a classroom*'. Then, pupils are instructed to use the definite article *the* through explaining to them that using this article is obligatory once a person wants to talk about something that has been already introduced in the discourse, for instance, '*This is a classroom. The classroom is big*'. Further, teachers instruct pupils to use the definite article *the* when the referent of the object is known by both of the speaker and hearer, as for example '*the board*' in the classroom.

To sum up, the use of articles is explicitly taught throughout the aforementioned methods in the sixth and seventh grades. Pupils are taught to use indefinite articles with nouns that have been newly introduced in the discourse. They must, however, use the definite article with nouns that refer to familiar objects to both the speaker and the hearer. Saudi pupils continue to receive implicit rules for producing definite and indefinite articles throughout the rest of the English sessions in the educational years. It is important to mention that mass nouns are

taught in due course of development. Pupils in the tenth grade onwards receive instructions in the rules of using the article *null* with indefinite mass NPs.

Now, I go back to the main purpose of this section which is to present some details about the participants in this study.

As stated above, in the present study, there were 128 participants; 123 SA L1 speakers and five native speakers of English who served as a control group. The L2 participants (SA-speaking L2 learners of English) were male undergraduate students in the English department at the Languages and Translation College at Imam Muhammad Ibn Saud Islamic University, Riyadh, Saudi Arabia. The L2 participants were from different years; first, second, third and fourth. The native speakers of English (control group) were postgraduate students at the University of Sheffield, U.K. Table 6.2 provides more details about the participants in this study.

Table 6.2

Overview of the Participants in the present Study

Proficiency Level	Saudi Speakers						English Speakers
	Beginner	Elementary	Lower Intermediate	Upper Intermediate	Advanced	Very Advanced	
Number of Participants	26	42	37	13	4	1	5
Mean score (OQPT)	9	23	34	44	50	55	N/A
Age range	19-21 (M=20)	19-22 (M=20)	20-22 (M=21)	20-22 (M=21)	20-22 (M=21)	21*	29-49 (M=37)

Note. M=Mean; *= One participant.

Different criteria in recruiting the L2 participants were applied in this study. Firstly, only the students who had never lived in English speaking countries were invited to take part in this experiment. Secondly, to minimize the effect of the critical period in L2 acquisition, only L2 participants whose first exposure to English at the age of 13 or later were invited to participate in this study (see Johnson and Newport; 1989, 1991 for more details of the role of

the critical period in L2 acquisition). Thirdly, I ensured that none of the participants spoke any other languages apart from Arabic as their first language and English as a second language. The reason behind applying these different criteria while recruiting the L2 participants in the present study was to minimize the effect of these factors on the results.

In the same vein, the different proficiency groups were modified. This modification was in the form of dividing the three lower proficiency levels: beginner, elementary and lower intermediate into two sublevels, lower and upper. This division was based on the mean score for each main level. For instance, the score of the beginner level in the OQPT (2001) ranges between 0 and 17 and the mean score of this level is 9. So, the L2 participants were divided into lower and upper beginners, the score range of the participants in the lower beginner level was 0 to 9 while the score range of the participants in the upper beginner level was 10 to 17. This modification was applied to the three lower proficiency levels in order to carefully observe the participants' progression throughout these different levels of proficiency. Further, this division was applied to avoid the effect of the results of the lower proficiency participants in a certain proficiency level on the results of the upper proficiency participants in the same proficiency level and vice versa. This technique was hoped to be fruitful in detecting the predicted mapping and feature reassembly processes in the due course of development in the SA-English acquisition of definite and indefinite articles.

Turning now to the three upper levels: upper intermediate, advanced and very advanced. There are two points that need to be highlighted. The first point is that since the very advanced level includes only one participant, this level was collapsed with the advanced level which included four participants, thus, the advanced level included five participants. The second point is that the two levels, upper intermediate (UI) and advanced (Ad), were not divided into two sublevels of lower and upper. The reason behind this is related to the small number of participants in these two levels. The number of the participants in the UI and Ad levels was 13 and 5 respectively. If they are divided into two sublevels, they might include six participants or less and it might not be possible to draw statistical results from them. Figure 6.1 details the different proficiency groups in the current study.
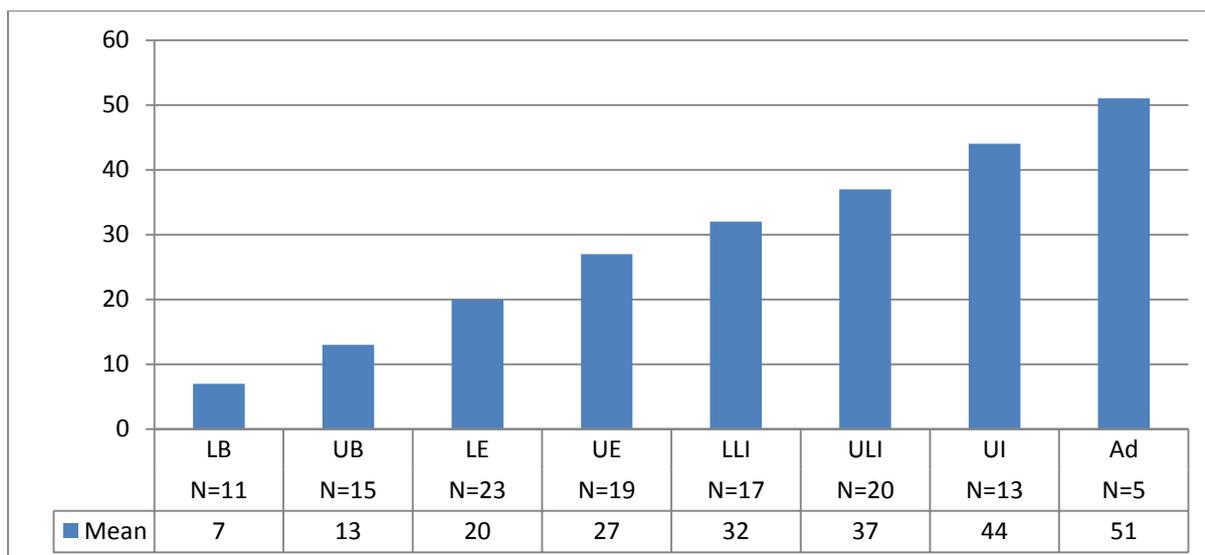
Figure 6.1. Means of the L2 participants (OQPT, 2001).

Note. N= Number of the participants; LB= lower beginner; UB= upper beginner; LE= lower elementary; UE= upper elementary; LLI= lower lower intermediate; ULI= upper lower intermediate; UI= upper intermediate; Ad= advanced.

A one-way ANOVA was used to measure the statistical difference between the mean scores of the different proficiency groups in the present study in the OQPT (2001). The results of this test show that there is a significant difference between the mean scores of the different proficiency levels ($p<.001$).

The following section explains the procedure of administering the three different tests in the current study.

6.4.   Procedure

Firstly, ethical approval for the research was sought from and approved by the Research and Innovation Services of the University of Sheffield, in line with the University's research ethics and integrity policy.

Let us now provide the procedure of conducting this research. The L2 participants in this study took part in three different tests: OQPT (2001), WTT and FCET, while the control group took part only in the FCET. The L2 participants were given written and oral instructions about the tests beforehand. To avoid any possible confusion, these instructions were in Arabic rather than English. The control group were given written and oral instructions in English before taking part. In all of the tests, I was present to clarify any points raised by the participants regarding these tests. The L2 participants were first given the

OQPT and they were told that this test was timed and that they had 30 minutes to complete it. After they had finished this test, the L2 participants were asked to take part in the WTT, followed the FCET. The reason the WTT before the FCET was to prevent the participants from discovering the aim of the experiment as it was predicted that they might easily discover the examined area (articles) from the structure of the FCET. The participants were instructed to take as much time as they wanted in completing the WTT and FCET. It took the participants about 45 minutes to answer the WTT and about 40 minutes to answer the FCET. In order to avoid any possible fatigue and boredom, there was a 10-minute break between the different tests. Due to cultural reasons, no financial compensation was given to the L2 participants. Alternatively, they were given an appreciation letter for their help in participating in this study.

6.5.   Summary of Chapter 6

This chapter has presented the different tests that were used in this study, a background of the participants and the procedure of administering the different tests.

Chapter 7

Forced-Choice Elicitation Test

Results and Discussion

7.1.   Introduction

This chapter provides the results in the FCET and discusses it in the light of the hypotheses proposed in the present study. The layout of this chapter is as follows: Section 7.2 presents the results of the FCET. Section 7.3 discusses the results of this test, while Section 7.4 provides the summary of this chapter.

7.2.   Results

As illustrated in Chapter 6, the participants in the FCET were asked to choose from three choices: *null*, *a*/*an* and *the*. Since one of the aims of this study is to examine the mapping of the indefinite article *null* in SA to the indefinite article '*a*/*an*' in L2 input, I consider the participants' use of the article *an* as a use of the article *a*. This is applied since both these articles are used with indefinite singular NPs.

The following section presents the results of the participants' mean rates of accuracy in definite and indefinite contexts.

7.2.1.   Rates of accuracy in definite and indefinite context.

The FCET consisted of 20 definite items and 30 indefinite items. This aim of this section is to assess the L2 participants' performance across the different proficiency groups. Further, it aims to compare their mean rates of accuracy in the definite context with those in the indefinite context. It also aims to compare the L2 participants' mean rates of accuracy in the definite and indefinite contexts with the control group. The observations of the results in this section will be discussed in the light of the first hypothesis, based on the FH (Ionin et al., 2008) and the second hypothesis, based on the FRH (Lardiere, 2008, 2009a, 2009b).

Before presenting the statistical results, Figure 7.1 provides the mean rates of accuracy in the definite and indefinite contexts across the different proficiency groups.

	LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
Definite	0.3	0.37	0.67	0.79	0.83	0.91	0.96	0.97	0.98
Indefinite	0.36	0.34	0.4	0.61	0.63	0.73	0.88	0.92	0.97
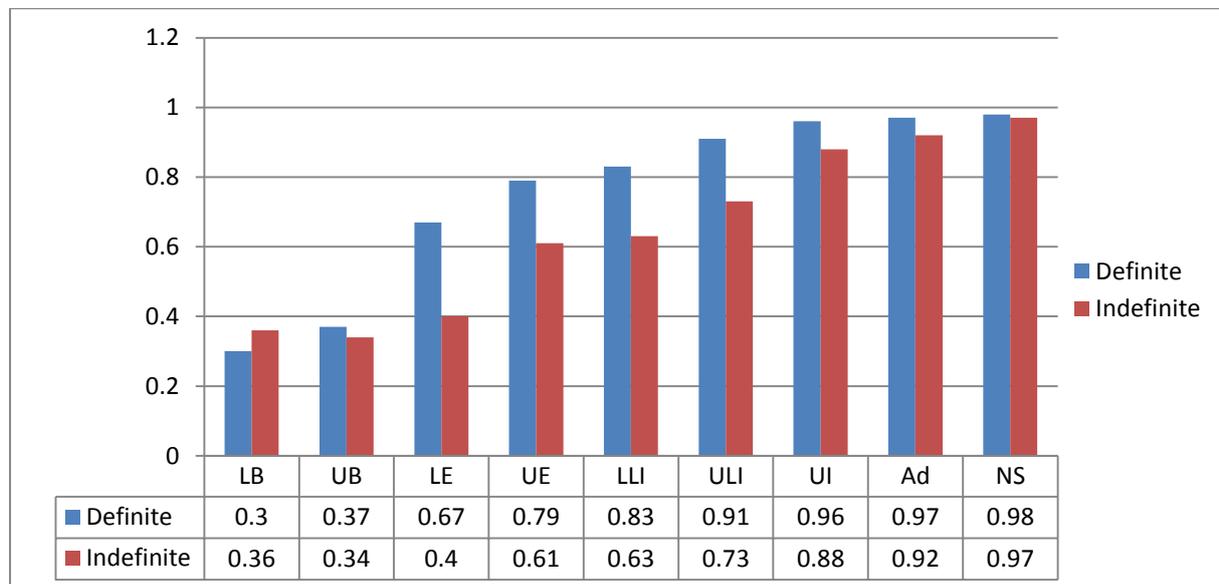
Figure 7.1. Mean rates of accuracy in definite and indefinite contexts in each proficiency group.

Note. NS= native speakers.

A series of one-way ANOVAs was used to measure the significant difference between the mean rates of accuracy in the different proficiency groups in each context. The results of this test reveal that there is a significant difference between the mean rates of accuracy across the proficiency groups in each context ($p < .001$).

The participants in the control group performed as expected where they mostly used the accurate article in the definite and indefinite contexts as shown in Figure 7.1 above.

Post hoc (TUKEY, HSD) tests were used to compare the mean rates of accuracy in each proficiency group and its following group (i.e., between LB group and UB group, and so on). The same tests were also used to compare each proficiency group with the control group. Table 7.1 provides the results in the definite context.

Table 7.1

FCET: Post hoc (Tukey, HSD) Tests of Mean Rates of Accuracy in the Definite Context

		MEAN								
		LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
		.30	.37	.67	.79	.83	.91	.96	.97	.97
MEAN	LB .30		.669							.001*
	UB .37			.001*						.001*
	LE .67				.001*					.001*
	UE .79					.717				.001*
	LLI .83						.081			.014*
	ULI .91							.890		.797
	UI .96								1.000	1.000
	Ad .97									1.000

*Note. *p<.05.*

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In the definite context, Table 7.1 shows that the first significant increase in the mean rate of accuracy is between the LE and UB groups (p<.001). This table also reveals another significant increase in the mean rate of accuracy in the same context between the UE and LE groups (p<.001). Despite these two significant increases, Table 7.1 shows that the L2 participants remained significantly different from the control group until the ULI group and the higher proficiency.

Moving now to the results of the post hoc (TUKEY, HSD) tests in the indefinite context presented in Table 7.2 below.

Table 7.2

FCET: Post hoc (Tukey, HSD) Tests of Mean Rates of Accuracy in the Indefinite Context

MEAN		LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
		.36	.34	.40	.61	.63	.73	.88	.92	.98
LB	.36		1.000							.001*
UB	.34			.351						.001*
LE	.40				.001*					.001*
UE	.61					.999				.001*
LLI	.63						.003*			.001*
ULI	.73							.001*		.001*
UI	.88								.990	.429
Ad	.92									.985

In the indefinite context, Table 7.2 shows that the L2 participants' mean rate of accuracy increases significantly in three proficiency groups: UE (p<.001), ULI (p<.003) and UI (p<.001). This table also reveals that the L2 participants continue to be significantly different from the control group until the UI and Ad groups.

In order to compare the mean rates of accuracy in the definite and indefinite contexts, paired samples t-tests were used and the results are presented in Table 7.3 below.

Table 7.3

FCET: Paired Samples t-tests of the Mean Rates of Accuracy (Definite vs. Indefinite)

	Definite		Indefinite		*Sig. (2-tailed)*
	Mean	SD	Mean	SD	Definite *vs.* Indefinite
LB	.37	.483	.34	.474	.769
UB	.30	.459	.36	.480	.787
LE	.67	.469	.40	.491	.001*
UE	.79	.411	.61	.489	.001*
LLI	.83	.373	.63	.485	.001*
ULI	.91	.281	.73	.445	.001*
UI	.96	.205	.88	.330	.117
Ad	.97	.167	.92	.278	.566

Note. SD= standard deviation.

In the LB and UB groups, Table 7.3 shows that there is no significant difference between the mean rates of accuracy in the definite and indefinite contexts. However, the mean rates of accuracy in the definite context become significantly higher than those in the indefinite context in the LE, UE, LLI and ULI groups ($p<.001$). In the UI and Ad groups, the results show that there is no significant difference between the mean rates of accuracy in the definite and indefinite contexts.

To sum up, the results so far provide evidence that the L2 participants find the acquisition of definite article *the* easier than the acquisition of indefinite articles *a* and *null*. This is suggested by the following observations. First, Tables 7.1 and Table 7.2 reveal that the significant increase in the mean rate of accuracy was observed at an earlier stage in the definite context (LE group) compared to the indefinite context (UE group). Secondly, these tables also show that the non-significant difference between the L2 participants and the control group was observed at an earlier stage in the definite context (ULI group) compared to the indefinite context (UI group). Finally, Table 7.3 shows that the mean rates of accuracy in the definite context were significantly higher than those in the indefinite context in four proficiency groups: LE, UE, LLI and ULI, but never vice versa.

The following section provides the results of the mean usage rates of each article in the different contexts.

7.2.2. Mean usage rates of the different articles in the different contexts.

This section reports the mean usage rates of each article in each context across the different proficiency groups. The observations found in this section will be discussed in the light of the hypotheses in the present study that are based on the FRH (Lardiere, 2008, 2009a, 2009b) and the extended version of Slabakova's (2009) cline of difficulty in L2 acquisition provided in Figure 5.2. In this section, different statistical tests are used to measure the differences between the mean usage rates of each article across the different proficiency groups and to compare them with those in the control group.

This section is divided into six subsections. The first presents the results in the definite context. The second reports the results in the indefinite singular context. The third provides the results in the indefinite plural context. The fourth presents the results in the indefinite

mass context. The fifth gives the results of the test items on mass/count distinction. The final subsection compares the main observations in the results across the different contexts.

The layout of each of the former five subsections is as follows. First, I provide an overview of the results and then statistical results. After that, a within context comparison will be conducted.

The following section provides the results of the definite context.

7.2.2.1.   *Definite context.*

This section reports the mean usage rates of the different articles in the definite context. Figure 7.2 below presents an overview of the results in this context. The target article used with definite NPs is *the*.

	LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
the	0.3	0.37	0.67	0.79	0.83	0.91	0.96	0.97	0.98
*a	0.25	0.4	0.18	0.11	0.09	0.04	0.01	0	0
*null	0.46	0.24	0.15	0.11	0.08	0.05	0.04	0.03	0.02
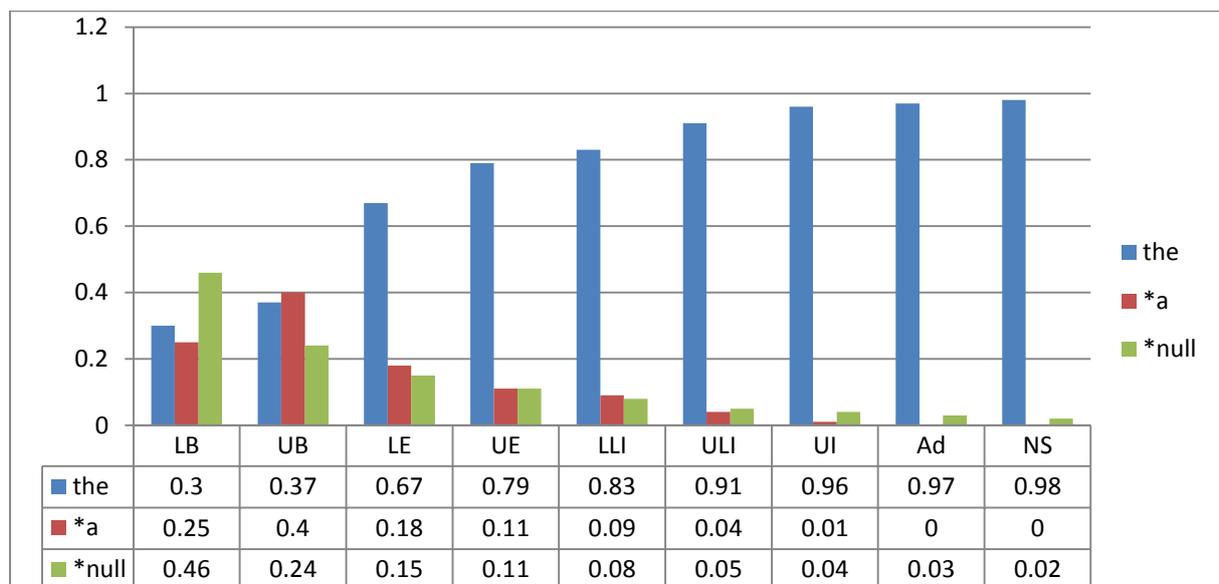
Figure 7.2. FCET: (Definite context) Mean usage rates for each article in each group.

A series of one-way ANOVAs revealed that there is a significant difference between the mean usage rates of each article across the different proficiency groups (p<.001).

In terms of the control group, Figure 7.2 shows that the participants in this group performed as expected. Paired samples t-tests showed that the participants in the control group used the target article *the* in the definite context at a significant higher mean usage rate in comparison with the other two articles, *a and *null, as shown in Table 7.4.

Table 7.4

FCET (Control group): Paired Samples t-tests of Mean Usage Rates of the Different Articles in Definite Context

ARTICLE	Mean	SD	Sig. (2-tailed)		
			*the - *a*	*the - *null*	**a - *null*
the (target)	.98	.137			
*a	.00	.000	.001**	.001**	.158
*null	.02	.137			

Note. *nontarget; M= mean.
**p<.05.

The following tables present the results of the post hoc (TUKEY, HSD) tests for the mean usage rates of each article in the different proficiency groups in the definite context.

The results of the mean usage rates of the target article *the* in the definite context is provided in Table 7.5. The shaded cells in this table, and in the other tables, indicate that there is no comparison made between the two groups in question.

Table 7.5

FCET: Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of the Target Article the in Definite Context

		MEAN								
		LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
		.30	.37	.67	.79	.83	.91	.96	.97	.98
LB	.30		.669							.001*
UB	.37			.001*						.001*
LE	.67				.001*					.001*
UE	.79					.717				.001*
LLI	.83						.081			.014*
ULI	.91							.890		.797
UI	.96								1.000	1.000
Ad	.97									1.000

Table 7.5 shows that the mean usage rates of the target article *the* increase significantly on two occasions: between LE and UB groups and between UE and LE groups. This suggests the participants' start interpreting the definite context appropriately. Despite these two significant increases, this table shows that the L2 groups remain significantly different from the control group until the ULI group and the higher proficiency groups.

The results of the mean usage rates of the nontarget article *a in the definite context is presented in Table 7.6.

Table 7.6

*FCET: Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of the Nontarget Article *a in Definite Context*

				MEAN						
		LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
		.25	.40	.18	.11	.09	.04	.01	.00	.00
MEAN	LB .25		.001*							.001*
	UB .40			.001*						.001*
	LE .18				.022*					.001*
	UE .11					.999				.052
	LLI .09						.279			.198
	ULI .04							.962		.981
	UI .01								1.000	1.000
	Ad .00									1.000

Table 7.6 shows that the mean usage rate of the article *a in the definite context increases significantly between the UB and LB groups. Thus, this suggests the participants' inability to differentiate between definite and indefinite contexts at this stage. However, this table shows that the mean usage rates of the same article decreases significantly between the LE and UB groups and between the UE and LE groups. Further, this table shows that the L2 participants' mean usage rate of the article *a in the definite context becomes non-significantly different from the control group in the UE group and the higher proficiency groups. This indicates the L2 participants' rejection of using this article in definite context at this stage.

The results of the mean usage rates of the nontarget article *null in the definite context is offered in Table 7.7.

Table 7.7

*FCET: Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of the Nontarget Article *null in Definite Context*

		MEAN								
		LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
		.46	.24	.15	.11	.08	.05	.04	.03	.02
MEAN	LB .46		.001*							.001*
	UB .24			.004*						.001*
	LE .15				.643					.004*
	UE .11					.887				.179
	LLI .08						.966			.778
	ULI .05							1.000		.992
	UI .04								1.000	1.000
	Ad .03									1.000

Table 7.7 shows that the mean usage rates of the article *null decrease significantly between the UB and LB groups and between the LE and UB groups. This table also shows that the mean usage rate of this article in the definite context becomes non-significantly different from the control group in the UE group and the higher proficiency groups. This suggests the L2 participants' awareness of not using this article in the definite context at this stage.

Table 7.8 provides the results of the paired samples t-tests of the different articles in the definite context.

Table 7.8

FCET: (L2 groups) Paired Samples t-tests of the Mean Usage Rates of the Different Articles in Definite Context

ARTICLE	Mean	SD	Sig. (2-tailed)		
			*the - *a*	*the - *null*	**a - *null*
			LB		
the (target)	.30	.459			
*a	.25	.433	.390	.021**	.002**
*null	.46	.500			
			UB		
the (target)	.37	.483			
*a	.40	.490	.544	.005**	.001**
*null	.24	.426			
			LE		
the (target)	.67	.469			
*a	.18	.383	.001**	.001**	.260
*null	.15	.355			
			UE		
the (target)	.79	.411			
*a	.11	.308	.001**	.001**	.914
*null	.11	.312			

Note. *nontarget.
**p<.05.

In the LB group, this table shows that the mean usage rate of the nontarget article *null* is significantly higher than those of the target article *the* and the nontarget article *a*. In the UB group, the mean usage rates of the target article *the* and the nontarget article *a* become significantly higher than those of the nontarget article *null*. This significant change in the mean usage rates of the nontarget articles *a* and *null* in the UB group provides evidence for the participants' inability to interpret the definite context accurately at this stage.

In the LE and UE groups, the mean usage rates of the target article *the* become significantly higher than those of the nontarget articles *a* and *null*. At the same time, there is no significant difference between the mean usage rates of the articles *a* and *null* in definite context by the same proficiency groups. This suggests that the participants at this stage become aware that it is inaccurate to use the articles *a* and *null* in the definite context. The results in the LE and UE groups are also found in the higher proficiency groups. For this

reason, the results of the paired samples t-tests in the higher proficiency groups are not included in Table 7.8.

To sum up, this section has shown that there was a pattern of randomness in the LB and UB groups and this was indicated by the following two observations. First, the mean usage rate of the article *null* was significantly higher than those of the articles *the* and *a* in the LB group. This pattern disappeared suddenly in the UB as the mean usage rate of the article *null* became significantly lower than those of the articles *the* and *a*. Secondly, the results in the UB group did not reveal any significant changes in the mean usage rate of the target article *the* in the definite context.

This section has also shown that the start of interpreting the definite context accurately was first observed in the LE group, as there were a significant increase in the mean usage rate of the target article *the* and a significant decrease of the mean usage rates of the articles *a* and *null*. In the UE group, there was another significant increase in the mean usage rate of the target article *the* and another significant decrease in the mean usage rate of the article *a*. At the same time, the results in the UE group and the higher proficiency groups showed that the participants managed to reject the use of the articles *a* and *null* in the definite context. This was suggested by the non-significant difference between the L2 participants and the control group in their mean usage rates of these nontarget articles in these proficiency groups. This section has also revealed that the participants' accurate mean usage rates of the target article remained significantly different from the control group until the ULI group and the higher proficiency groups.

The following section presents the results in the indefinite singular context.

7.2.2.2. *Indefinite singular context*.

Figure 7.3 presents an overview of the results in the indefinite singular context. The target article used with indefinite singular NPs in English is *a*.
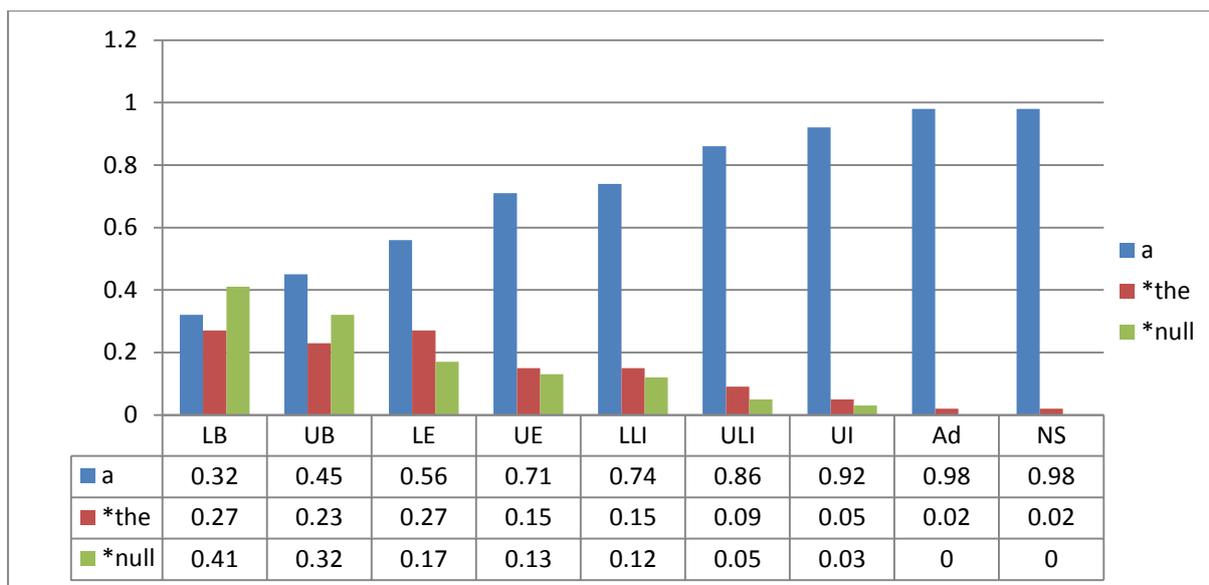
Figure 7.3. FCET: (Indefinite singular context) Mean usage rates for each article in each group.

A series of one-way ANOVAs shows that there is a significant difference between the mean usage rates of each article in the different proficiency groups ($p<.001$).

The results for the control group in the indefinite singular context were as expected, as shown in Figure 7.3 above. Paired samples t-tests show that the participants in the control group use the target article *a* at a significant higher rate in comparison with the articles *the* and *null* ($p<.001$) as shown in Table 7.9 below. This table also shows that there is no significant difference between the use of the article *the* and *null* ($p<.322$).

Table 7.9

FCET (Control group): Paired Samples t-tests of Mean Usage Rates of the Different Articles in Indefinite Singular Context

ARTICLE	Mean	SD	Sig. (2-tailed)		
			*a - *the*	*a - *null*	*the - *null*
a (target)	.98	.135			
the	.02	.135	.001**	.001**	.322
null	.00	.000			

Note. *nontarget.
**$p<.05$.

Table 7.10 reports the results of the post hoc (TUKEY, HSD) tests for the use of the target article *a* in the indefinite singular context across the different proficiency groups.

Table 7.10

FCET: Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of Target Article a in Indefinite Singular Context

			MEAN								
			LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
			.32	.45	.56	.71	.74	.86	.92	.98	.98
MEAN	LB	.32		.398							.001*
	UB	.45			.218						.001*
	LE	.56				.002*					.001*
	UE	.71					1.000				.001*
	LLI	.74						.080			.004*
	ULI	.86							.889		.582
	UI	.92								.994	.994
	Ad	.98									1.000

Table 7.10 shows that there is a clear gradual increase, though not significant, in the mean usage rates of the target article *a* in the UB and LE groups. In the UE group, this table reveals that there is a significant increase of the article *a* in the indefinite singular context compared to the LE group. In spite of this significant increase, the L2 participants continued to be significant different from the control group until the ULI group and the higher proficiency groups.

Table 7.11 presents the results of the mean usage rates of the nontarget article *the* in the indefinite singular context.

Table 7.11.

FCET: Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of Nontarget Article *the in Indefinite Singular Context

			MEAN								
			LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
			.27	.23	.27	.15	.15	.09	.05	.02	.02
MEAN	LB	.27		.997							.002*
	UB	.23			.957						.005*
	LE	.27				.009*					.001*
	UE	.15					1.000				.232
	LLI	.15						.841			.328
	ULI	.09							.975		.914
	UI	.05								1.000	1.000
	Ad	.02									1.000

In the first three proficiency groups; LB, UB and LE, Table 7.11 shows that there is a steady usage of the article **the* in the indefinite singular context. Nevertheless, in the UE group, the L2 participants' mean usage rate of this article decreases significantly in comparison with the LE group.

This table also shows that the L2 participants become non-significantly different from the control group in using the article **the* in the indefinite singular context in the UE group and the higher proficiency groups. This indicates their ability to reject the use of this article at this stage.

Table 7.12

FCET: Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of Nontarget Article *null in Indefinite Singular Context

			LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
		MEAN	.41	.32	.17	.13	.12	.05	.03	.00	.00
MEAN	LB	.41		.571							.001*
	UB	.32			.001*						.001*
	LE	.17				.960					.016*
	UE	.13					1.000				.160
	LLI	.12						.494			.326
	ULI	.05							1.000		.986
	UI	.03								1.000	1.000
	Ad	.00									1.000

Table 7.12 provides the results of the mean usage rates of the nontarget article *null* in the indefinite singular. This table shows that the mean usage rate of the article *null* decreases significantly between the LE and UB groups. This table also shows that the L2 participants become non-significantly different from the control group in the indefinite singular context in the UE group and the higher proficiency groups. This suggests the L2 participants' rejection of the use of the article *null* in the indefinite singular context at this stage.

The following table provides the results of the paired samples t-tests in the indefinite singular context within each proficiency group.

Table 7.13

FCET: (L2 groups) Paired Samples t-tests of the Mean Usage Rates of the Different Articles in Indefinite Singular Context

ARTICLE	Mean	SD	Sig. (2-tailed)		
			a - *the	a - *null	*the - *null
LB					
a (target)	.32	.470			
*the	.27	.445	.495	.328	.096
*null	.41	.495			
UB					
a (target)	.45	.499			
*the	.23	.422	.001**	.092	.122
*null	.32	.470			
LE					
a (target)	.56	.498			
*the	.27	.447	.001**	.001**	.014**
*null	.17	.377			
UE					
a (target)	.71	.453			
*the	.15	.361	.001**	.001**	.607
*null	.13	.341			

Note. *nontarget.
**p<.05.

In the LB and UB groups, Table 7.13 shows that the L2 participants use the different articles randomly. That is to say, in the LB group, there is no significant difference between the mean usage rates of the different articles in indefinite singular context. Further, in the UB group, the mean usage rate of the target article *a* is significantly higher than the mean usage rate of the nontarget article *the while it is not significantly different from the mean usage rate of the nontarget article *null.

In the LE group, there is a tendency to use the target article *a* in the indefinite singular context. This is demonstrated by the significant higher mean usage rate of this article in comparison with those of the other nontarget articles. However, the results in the same group show that the mean usage rate of the nontarget article *the is significantly higher than the mean usage rate of the nontarget article *null. Recall that it was shown in Table 7.11 that there was a steady usage of the article *the in the indefinite singular context in the LB, UB

and LE groups. Further, the significant decrease of the mean usage rate of the article *the* in the indefinite singular context was firstly observed in the UE group. Therefore, this might indicate that the participants are still not able to reject the article *the* in the indefinite singular context in the LE group and lower proficiency groups. This observation is also supported by the results found in Table 7.11 where the mean usage rate of the article *the* in the indefinite singular context in the LE group was significantly different from that in the control group.

Table 7.13 also shows that, in the UE group, the mean usage rate of the target article *a* continues to be significantly higher than those of the nontarget articles *the* and *null*. At the same time, the results shows that the mean usage rate of the nontarget article *the* becomes non-significantly different from that of the nontarget article *null*. This non-significant difference between the mean usage rates of the nontarget articles is ascribed to their low mean usage rates at this stage. The results in the higher proficiency groups is not included in this table, given that it is similar to the one found in the UE group.

To sum up, this section has shown that the different articles were used randomly in the LB and UB groups in the indefinite singular context, and this is similar to the pattern found in the definite context. In the LE group, there was a significant decrease in the mean usage rate of the article *null*. At the same time, there was a gradual, but not statistically significant, increase in the mean usage rate of the target article *a* in the LE group. Further, there was a steady usage of the article *the* in the LB, UB and LE groups. As a result, a significant higher usage rate of the target article *a* compared to the other nontarget articles was found in the LE group. At the same time, the mean usage rate of the article *the* was significantly higher than that of the article *null*.

In the UE group, there was a significant increase in the mean usage rate of the target article *a* while there was a significant decrease in that of the article *the*. Additionally, the mean usage rates of the nontarget articles, *the* and *null*, became non-significantly different from the control group in the UE group, which suggests the L2 participants' rejection of using these two nontarget articles in the indefinite singular context at this stage.

Further, similar to the results in the definite context, this section has shown that the mean usage rate of the target article *a* became non-significantly different from the control group in the ULI group and the higher proficiency groups.

The results in the definite context and indefinite singular context suggest that L2 participants find the acquisition of the indefinite article *a* more problematic than the acquisition of the definite article *the*. This was suggested by the significant increase towards the target-like performance which was observed at an earlier stage in the definite context (LE group) compared to the indefinite context (UE group). More illustration about this observation is provided in Section 7.2.2.6.

The following section presents the results in the indefinite plural context.

7.2.2.3. *Indefinite plural context.*

Figure 7.4 gives an overview of the results in the indefinite plural context across the different groups. The target article used with indefinite plural NPs is *null*.
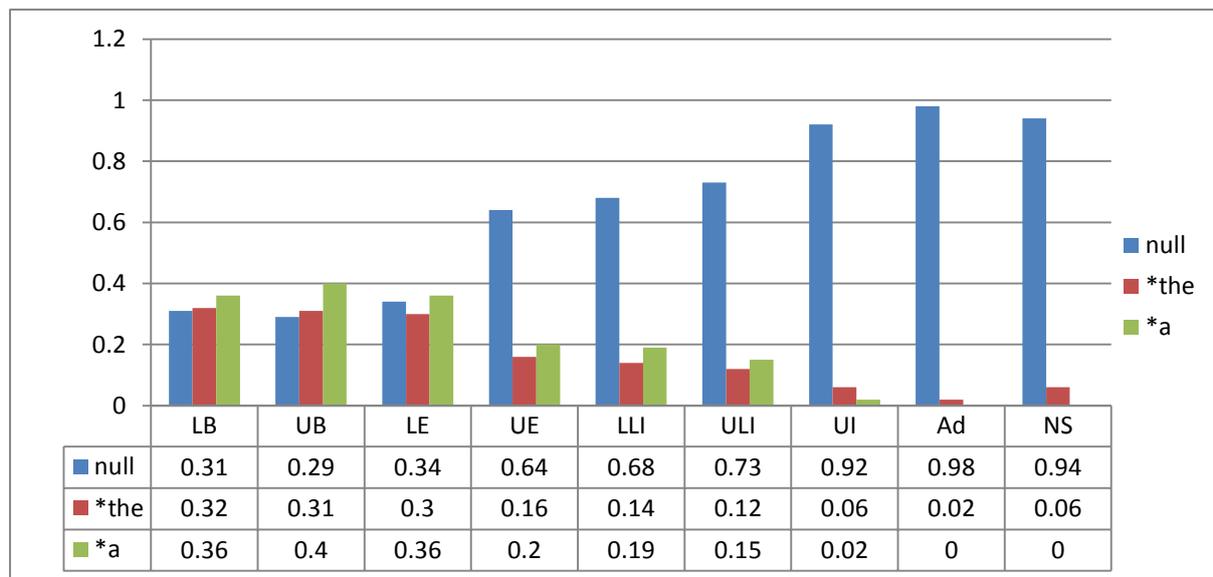

	LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
null	0.31	0.29	0.34	0.64	0.68	0.73	0.92	0.98	0.94
*the	0.32	0.31	0.3	0.16	0.14	0.12	0.06	0.02	0.06
*a	0.36	0.4	0.36	0.2	0.19	0.15	0.02	0	0

Figure 7.4. FCET: (Indefinite plural context) Mean usage rates for each article in each group

A series of one-way ANOVAs reveals that there is a significant difference between the mean usage rates of each article across the different proficiency groups in the indefinite plural context (p<.001).

Figure 7.4 shows that the participants in the control group perform as expected, as they predominantly use the target article *null* in the indefinite plural context. Paired samples t-tests in Table 7.14 show that the control group's mean usage rate of the target article *null* is significantly higher than those of the articles **the* and **a*.

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Table 7.14

FCET (Control group): Paired Samples t-tests of Mean Usage Rates of the Different Articles in Indefinite Plural Context

ARTICLE	Mean	SD	Sig. (2-tailed)		
			*null - *the*	*null - *a*	*the - *a*
null (target)	.94	.240			
the	.06	.240	.001**	.001**	.083
a	.00	.000			

Note. *nontarget.
**p<.05.

The results of the post hoc (TUKEY, HSD) tests for each article in the indefinite plural context are presented in the following tables. Table 7.15 provides the results of the target article *null* for the different groups.

Table 7.15

FCET: Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of Target Article null in Indefinite Plural Context

			MEAN								
			LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
			.31	.29	.34	.64	.68	.73	.92	.98	.94
MEAN	LB	.31		1.000							.001*
	UB	.29			.971						.001*
	LE	.34				.001*					.001*
	UE	.64					.995				.001*
	LLI	.68						.936			.005*
	ULI	.73							.004*		.069
	UI	.92								.997	1.000
	Ad	.98									1.000

For the LB, UB and LE groups, Table 7.15 shows that the mean usage rate of the target article *null* is relatively steady. It is in the UE group when the mean usage rate of this article increases significantly compared to the LE group. This suggests the start of the accurate

interpretation of the indefinite plural context. Note that the L2 participants' accurate interpretation of the definite context and indefinite singular context was observed at an earlier stage (LE group), which suggests the higher level of difficulty of the SA-English acquisition of the article *null* used with indefinite plural NPs compared to the acquisition of the articles *the* and *a*. Table 7.15 also shows another significant increase of the target article *null* between the UI and ULI groups. The results also show that the mean usage rate of this article remains significantly different from the control group until the ULI group and the higher proficiency groups.

Table 7.16

FCET: Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of Nontarget Article *the in Indefinite Plural Context

			MEAN							
		LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
		.32	.31	.30	.16	.14	.12	.06	.02	.06
MEAN	LB .32		1.000							.004*
	UB .31			1.000						.002*
	LE .30				.009*					.002*
	UE .16					.999				.728
	LLI .14						1.000			.936
	ULI .12							.904		.985
	UI .06								.999	1.000
	Ad .02									1.000

Table 7.16 present the results of the mean usage rates of the nontarget article **the* in the indefinite plural context. For the LB, UB and LE groups, Table 7.16 reveals the steady mean usage rates of the article **the* in the indefinite plural context. In the UE group, there is a significant decrease in the mean usage rate of this article compared to the LE group. This suggests that the participants differentiate between the definite and indefinite contexts. Evidence for this observation also comes from the non-significant difference in the mean usage rate of the article **the* between the L2 participants and the control group, which is first found in the UE group. This non-significant difference is also observed in the higher proficiency groups.

Table 7.17 offers the results of the mean usage rates of the nontarget article *a in the indefinite plural context.

Table 7.17

*FCET: Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of Nontarget Article *a in Indefinite Plural Context*

			MEAN							
			LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
			.36	.40	.36	.20	.19	.15	.02	.00	.00
MEAN	LB	.36		.999							.001*
	UB	.40			1.000						.001*
	LE	.36				.001*					.001*
	UE	.20					1.000				.035*
	LLI	.19						.986			.078
	ULI	.15							.078		.312
	UI	.02								.997	1.000
	Ad	.00									1.000

For the LB, UB and LE groups, Table 7.17 shows the relatively steady mean usage rates of the article *a in the indefinite plural context. However, in the UE group, this table reveals that the mean usage rate of the nontarget article *a decreases significantly compared to the LE group. This indicates that the participants at this stage start to differentiate between indefinite singular and plural NPs. This table also shows that there is a significant difference between the L2 participants and the control group in terms of the mean usage rate of the article *a until the LLI group and the higher proficiency groups.

The previous three tables presented the mean usage rates of each article in the indefinite plural context. Table 7.18 below reports the results of the paired samples t-tests for the mean usage rates of the different articles within each group.

Table 7.18

FCET: (L2 groups) Paired Samples t-tests of Mean Usage Rates of the Different Articles in Indefinite Plural Context

ARTICLE	Mean	SD	Sig. (2-tailed)		
			*null - *the*	*null - *a*	**the - *a*
LB					
null (target)	.31	.466			
*the	.32	.471	.885	.575	.677
*a	.36	.485			
UB					
null (target)	.29	.457			
*the	.31	.463	.828	.128	.192
*a	.40	.492			
LE					
null (target)	.34	.476			
*the	.30	.458	.365	.814	.254
*a	.36	.480			
UE					
null (target)	.64	.482			
*the	.16	.370	.001**	.001**	.401
*a	.20	.401			

Note. *nontarget.
**p<.05.

Table 7.18 shows that there is no significant difference between the mean usage rates of the different articles in the indefinite plural context in the LB, UB and LE groups. This suggests that the participants in these proficiency groups are still not able to interpret the indefinite plural context appropriately. However, in the UE group, the mean usage rate of the target article *null* became significantly higher than those of the nontarget articles **a* and **the*. At the same time, there is no significant difference between the mean usage rates of the nontarget articles **the* and **a*. The results for the UE group suggest that the L2 participants started to interpret the indefinite plural context appropriately. The results of the paired samples t-tests in the higher proficiency groups are not added in this table, given that they are not different from that found in the UE group.

To sum up, this section has shown that the participants in the indefinite plural context used the different articles randomly in the first three proficiency groups; LB, UB and LE. It

has been revealed that it is in the UE group where the mean usage rates of the different articles changed significantly; increase in the mean usage rate of the target article *null*, and decrease in the mean usage rates of the nontarget articles **the* and **a*. This section has also shown another significant increase in the mean usage rate of the target article *null* in the UI group.

In terms of comparing the L2 participants with the control group, the L2 participants' mean usage rate of the target article *null* became non-significant from the control group in the ULI group and in higher proficiency groups. At the same time, the L2 participants' mean usage rate of the article **the* became non-significantly different from the control group in the UE group and in the higher proficiency groups while their mean usage rate of the article **a* became non-significantly different from the control group at a later stage, LLI group and in the higher proficiency groups.

The results in the different contexts up to now suggests that the SA-English acquisition of the article *null* used with indefinite plural NPs is more difficult than the acquisition of the articles *the* and *a*. This is suggested by the random use of the different articles which lasted for a longer time in the indefinite plural context (LB, UB and LE groups) compared to the definite context and indefinite singular context (LB and UB groups).

The next section provides the results in the indefinite mass context.

7.2.2.4. *Indefinite mass context*.

Figure 7.5 provides an overview of the results in the indefinite mass context. The target article used with indefinite mass NPs in English is *null*.
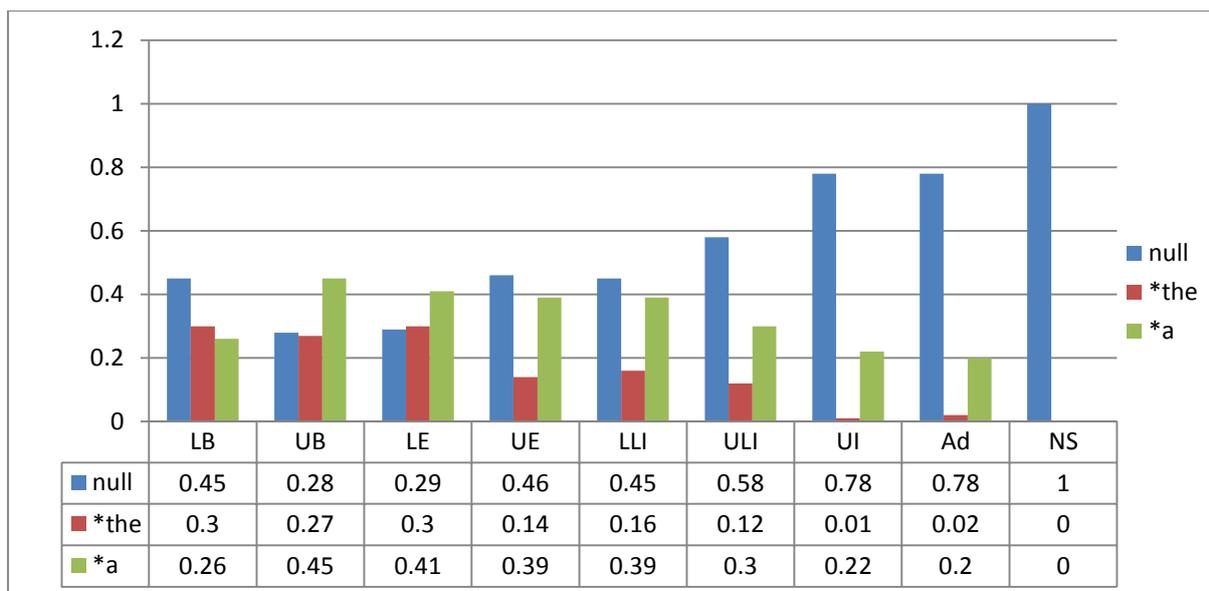
	LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
null	0.45	0.28	0.29	0.46	0.45	0.58	0.78	0.78	1
*the	0.3	0.27	0.3	0.14	0.16	0.12	0.01	0.02	0
*a	0.26	0.45	0.41	0.39	0.39	0.3	0.22	0.2	0

Figure 7.5. FCET: (Indefinite mass context) Mean usage rates for each article in each group.

A series of one-way ANOVAs reveals that there is a significant difference between the mean usage rates of each article in the different proficiency groups in indefinite mass context ($p < .001$).

In terms of the control group, Figure 7.5 shows that the participants in this group performed as expected when they used the target article *null* with all of the indefinite mass NPs. Given that the standard error of the difference in the control group is 0, paired samples t-tests cannot be used.

The results of the post hoc (TUKEY, HSD) tests for the use of the target article *null* in the indefinite mass context are presented in Table 7.19.

Table 7.19

FCET: Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of Target Article null in Indefinite Mass Context

			MEAN								
			LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
			.45	.28	.29	.46	.45	.58	.78	.78	1.00
MEAN	LB	.45		.211							.001*
	UB	.28			1.000						.001*
	LE	.29				.006*					.001*
	UE	.46					1.000				.001*
	LLI	.45						.176			.001*
	ULI	.58							.005*		.001*
	UI	.78								1.000	.091
	Ad	.78									.299

For the LB, UB and LE groups, Table 7.19 reveals that there is no significant change in the mean usage rates of the target article *null* in the indefinite mass context. Nevertheless, in the UE group, the mean usage rate of this article increases significantly in comparison with the LE group, which suggests that the participants start interpreting the indefinite mass context accurately. Another significant increase in the mean usage rate of the target article *null* is observed between the UI and ULI groups. This significant increase leads the L2 participants in the UI and Ad groups to become non-significantly different from the control group.

Table 7.20

FCET: Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of Nontarget Article *the in Indefinite Mass Context

			MEAN								
			LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
			.30	.27	.30	.14	.16	.12	.01	.02	.00
MEAN	LB	.32		1.000							.001*
	UB	.27			.999						.001*
	LE	.30				.001*					.001*
	UE	.14					1.000				.245
	LLI	.16						.983			.137
	ULI	.12							.128		.472
	UI	.01								1.000	1.000
	Ad	.02									1.000

Table 7.20 presents the results of the mean usage rates of the nontarget article *the in the indefinite mass context. This table reveals that in the first three proficiency groups; LB, UB and LE, the mean usage rates of the article *the are relatively equal. However, in the UE group, there is a significant decrease in the mean usage rate of this article and this indicates that the participants start differentiating between definite and indefinite contexts appropriately by rejecting the nontarget article *the in this context. The results thus far are compatible with the results found in Table 7.19 above, where the participants' first trace of interpreting the indefinite mass context accurately was observed in the UE group. This table also shows that the L2 participants' mean usage rate of the article *the becomes non-significantly different from the control group for the UE group and the higher proficiency groups. This provides more evidence for the L2 participants' ability to avoid the use of the nontarget article *the in the indefinite mass context.

Table 7.21 provides the results of the mean usage rates of the nontarget article *a in the indefinite mass context.

Table 7.21

FCET: Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of Nontarget Article *a in Indefinite Mass Context

			MEAN								
			LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
			.26	.45	.41	.39	.39	.30	.22	.20	.00
MEAN	LB	.26		.066							.006*
	UB	.45			.995						.001*
	LE	.41				1.000					.001*
	UE	.39					1.000				.001*
	LLI	.39						.663			.001*
	ULI	.30							.792		.001*
	UI	.22								1.000	.117
	Ad	.20									.432

Table 7.21 shows that there is no significant change between the mean usage rates of the nontarget article *a in indefinite mass context between one proficiency group and its succeeding group. The residual use of this nontarget article across the proficiency groups suggests the participants' relative difficulty in differentiating between indefinite mass NPs and indefinite singular NPs. Thus, the L2 participants sometimes considered indefinite mass NPs to be indefinite singular NPs; hence, they used the article *a with indefinite mass NPs. Evidence of this also comes from comparing the L2 participants with the control group. This table shows that the L2 participants remain significantly different from the control group in terms of using the article *a until the UI group. More details are provided later in this section.

Table 7.22 below compares the mean usage rates of the different articles in the indefinite mass context for each proficiency groups.

Table 7.22

FCET: (L2 groups) Paired Samples t-tests of Mean Usage Rates of the Different Articles in Indefinite Mass Context

ARTICLE	Mean	SD	Sig. (2-tailed)		
			*null - *the*	*null - *a*	**the - *a*
LB					
null (target)	.45	.500			
**the*	.30	.460	.139	.052	.643
**a*	.26	.440			
UB					
null (target)	.28	.449			
**the*	.27	.445	.910	.013**	.010**
**a*	.45	.500			
LE					
null (target)	.29	.456			
**the*	.30	.458	.931	.032**	.040**
**a*	.41	.493			
UE					
null (target)	.46	.500			
**the*	.14	.350	.001**	.310	.001**
**a*	.39	.490			
LLI					
null (target)	.45	.499			
**the*	.16	.367	.001**	.359	.001**
**a*	.39	.389			
ULI					
null (target)	.58	.495			
**the*	.12	.326	.001**	.001**	.001**
**a*	.30	.459			
UI					
null (target)	.78	.418			
**the*	.01	.088	.001**	.001**	.001**
**a*	.22	.413			
Ad					
null (target)	.78	.418			
**the*	.02	.141	.001**	.001**	.005**
**a*	.20	.404			

Note. *nontarget.
**$p<.05$.

It appears that the results in Table 7.22 provide evidence for the difficulty the L2 participants find in interpreting the indefinite mass context. In the LB group, this table reveals no

significant difference between the mean usage rates of the different articles. In the UB and LE groups, the mean usage rates of the nontarget article *a* are significantly higher than those of the target article *null* and the nontarget article *the*. At the same time, there is no significant difference between the mean usage rates of the target article *null* and the nontarget article *the*. This suggests that the participants in the UB and LE groups seem to consider indefinite mass NPs as indefinite singular NPs. Thus, it appears that the participants are not able to interpret the indefinite mass context accurately in the first three proficiency groups; LB, UB and LE.

In the UE and LLI groups, the mean usage rates of the target article *null* and the nontarget article *a* become significantly higher than those of the nontarget article *the* in the indefinite mass context. At the same time, there is no significant difference between the mean usage rates of the target article *null* and the nontarget article *a* in the same proficiency groups. The results thus far indicate that the L2 participants still have some difficulties in differentiating between indefinite mass NPs and indefinite singular NPs.

In the ULI, UI and Ad groups, the results show that the mean usage rates of the target article *null* became significantly higher than those of the nontarget article *a*. Although these results might suggest the L2 participants' ability to differentiate between indefinite mass NPs and indefinite singular NPs, it appears that the L2 participants in these proficiency groups still have persistent difficulty in distinguishing between these two types of NPs, and this is indicated by their tendency to use the nontarget article *a* in indefinite mass context.

To sum up, this section has so far revealed that the participants were using the different articles inaccurately in the LB, UB and LE groups. It has also shown that the mean usage rate of the target article *null* in the indefinite mass context increased significantly in two proficiency groups: UE and UI. At the same time, this section has revealed that the mean usage rate of the target article remained significantly different from the control group until the UI group, contrary to what it has been found in the previous contexts, where the mean usage rate of the target article in each context became non-significantly different from the control group at an earlier stage in the ULI group.

This section has also revealed that the mean usage rate of the article *the* decreased significantly in the UE group and became non-significantly different from the control group in the same proficiency group. This suggests the L2 participants' ability to differentiate between definite and indefinite contexts.

In terms of the use of the article *a in the indefinite mass context, this section has shown that there was a residual use of this article across the different proficiency groups. At the same time, it has been shown that the L2 participants' mean usage rate of the article *a in the indefinite mass context remained significantly different from the control group until the UI group. Further, the mean usage rate of the article *a was significantly higher than the mean usage rate of the target article *null* in the UB and LE groups. In the UE and LLI groups, there was no significant difference between the mean usage rates of the target article *null* and the nontarget article *a. It is only in the ULI group and the higher proficiency groups when the mean usage rates of the target article became significantly higher than those of the article *a. The results in the indefinite mass context provided evidence for the difficulty the L2 participants found in differentiating between indefinite mass NPs and indefinite singular NPs.

Taking into account the results found in the indefinite mass context and in the previous three contexts, it appears that the SA-English acquisition of the article *null* used with indefinite mass NPs is more difficult than the acquisition of the articles *the*, *a* and *null* used with definite, indefinite singular and indefinite plural NPs respectively. More elaboration about this observation is provided in Section 7.2.2.6.

The following section provides the results of the test items on the mass/count distinction.

7.2.2.5. *Mass/count distinction*.

In Chapter 5, the question of the possible effect of the absence of a mass-marking morpheme in mass nouns in the SA-English acquisition of the article *null* used with indefinite mass NPs was raised. In the present study, test items on mass/count distinction were designed aiming to examine the SA-speaking L2 learner's knowledge in differentiating between mass and count nouns. An example of these test items is provided below (test item 9 in the main test).

(1) I went to the bakery and I bought (*a bread – breads – a loaf of bread*)

In these test items, the participants were asked to select the best answer from three different choices; the *target* choice which is in the form of a measure noun phrase (*MP*) as in *a loaf of bread*, the *a+mass noun* choice (*A+M*) as in *a bread* and the *mass noun+s* choice (pluralized mass noun [*PM*]) as in *breads* as shown in example (1). In these test items, there

are two scenarios. The first is that the L2 participants prefer to choose the target choice *MP* as in *a loaf of bread*. If this happens, one may conclude that the participants distinguish indefinite mass NPs from indefinite count NPs which mean that they have managed to build up the knowledge of mass/count distinction. The second scenario is that the participants tend to choose the **A+M* choice as in *a bread* or the **PM* choice as in **breads*. In this scenario, one may conclude that the participants do not distinguish indefinite mass NPs from indefinite count NPs, and thus they have not built up the knowledge of mass/count distinction.

Figure 7.6 provides an overview of the results in the test items on mass/count distinction and the target choice is *MP*.
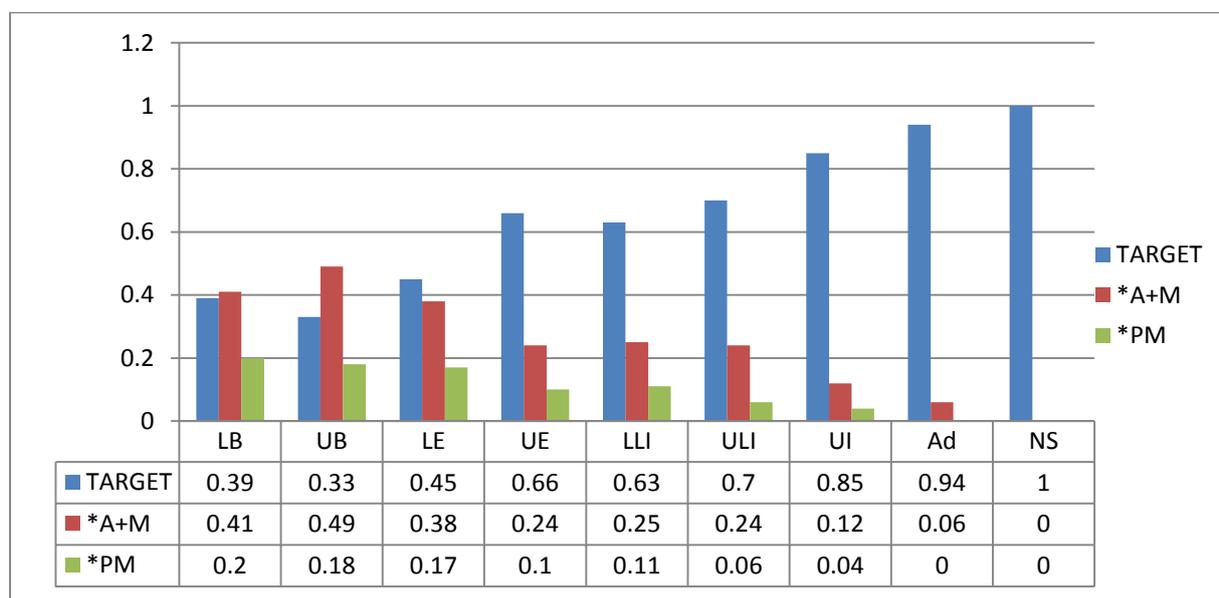

	LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
TARGET	0.39	0.33	0.45	0.66	0.63	0.7	0.85	0.94	1
*A+M	0.41	0.49	0.38	0.24	0.25	0.24	0.12	0.06	0
*PM	0.2	0.18	0.17	0.1	0.11	0.06	0.04	0	0

Figure 7.6. FCET: (mass/count distinction) Mean usage rates for each choice in each group.

Note. Target= MP; *A+M= *a+ mass noun; *PM= *pluralized mass noun.

A series of one-way ANOVAs showed that there is a significant difference between the mean usage rates of each choice in the different proficiency groups.

Figure 7.6 shows that the participants in the control group perform as expected; they used the target answer *MP* in all of the test items. Given that the participants in the control group never use the choices, **A+M* and **PM*, paired samples cannot be used for this group as the standard error of difference between the mean usage rates of the different choices is 0.

The following three tables present the results of post hoc (TUKEY, HSD) tests for each choice in these test items on mass/count distinction.

Table 7.23

FCET (mass/count): Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of Target Choice MP

			MEAN								
			LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
			.39	.33	.45	.66	.63	.70	.85	.94	1.00
MEAN	LB	.39		.998							.001*
	UB	.33			.299						.001*
	LE	.45				.001*					.001*
	UE	.66					1.000				.001*
	LLI	.63						.901			.001*
	ULI	.70							.098		.001*
	UI	.85								.944	.504
	Ad	.94									.999

Table 7.23 provides the results of the mean usage rates of the target choice *MP*. This table reveals that there are relatively steady mean usage rates of the target choice *MP* in the LB, UB and LE groups. However, in the UE group, this table shows that there is a significant increase in the mean usage rate of this choice compared to the LE group. In spite of this significant increase, the mean usage rate of the target choice *MP* remains significantly different from the control group until the UI and Ad groups.

It appears that the results are consistent with the results of the mean usage rates of the target article *null* in the indefinite mass context presented in Table 7.19. The results in Table 7.19 and Table 7.23 show that the L2 participants became non-significantly different from the control group in the UI and Ad groups.

Moving now to the results of the mean usage rates of the nontarget choice **A+M* which are provided in Table 7.24.

Table 7.24

*FCET (mass/count): Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of Nontarget Choice *A+M*

			MEAN							
			LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
			.41	.49	.38	.24	.25	.24	.12	.06	.00
MEAN	LB	.41		.970							.001*
	UB	.49			.397						.001*
	LE	.38				.025*					.001*
	UE	.24					1.000				.011*
	LLI	.25						1.000			.009*
	ULI	.24							.167		.010*
	UI	.12								.997	.795
	Ad	.06									.999

For the LB, UB and LE groups, Table 7.24 shows that the participants use the nontarget choice *A+M in a fairly steady manner. It is in the UE group however when the results show that there is a significant decrease in the mean usage rate of this choice in comparison with the LE group.

The results in Table 7.24 are consistent with results of the target choice *MP* in Table 7.23. The two tables show that the mean usage rates of the target choice *MP* and the nontarget choice *A+M change significantly in the UE group. However, the results of the mean usage rate of the nontarget choice *A+M in Table 7.24 are inconsistent with the results of the mean usage rates of the nontarget article *a in the indefinite mass context in Table 7.21. In other words, the results in Table 7.21 have revealed that the participants failed to show any significant decrease of the nontarget article *a in the indefinite mass context; thus, it appears that the participants have persistent difficulty in distinguishing between indefinite mass NPs and indefinite singular NPs. In contrast, the results in Table 7.24 show the L2 participants' sensitivity to reject the nontarget choice *A+M in the UE group. The reason for this inconsistency might be attributed to the design of the test items on mass/count distinction, which seems to facilitate the L2 participants' task in selecting the right choice. Recall that the different choices in the test items are in three forms; target *MP*, *A+M and *PM*. Thus, it

appears that this design provided a clue to the type of noun, which as a result aided the L2 participants to recognise the noun in question.

In terms of comparing the L2 groups with the control group in their mean usage rate of the nontarget choice *A+M, Table 7.24 shows that the L2 participants remain significantly different from the control group until the UI and Ad groups. This is consistent with the results found in Table 7.21, where it has been shown that the L2 participants' mean usage rate of the article *a in the indefinite mass context remained significantly different from the control group until the UI and Ad groups.

Therefore, the results in Table 7.23 and Table 7.24 seem to provide evidence for L2 participants' persistent difficulty in differentiating between indefinite mass NPs and indefinite count NPs until the UI group.

Table 7.25 presents the results of the mean usage rates of the nontarget choice *PM.

Table 7.25

*FCET (mass/count): Post hoc (TUKEY, HSD) Tests of Mean Usage Rates of Nontarget Choice *PM*

			MEAN							
			LB	UB	LE	UE	LLI	ULI	UI	Ad	NS
			.20	.18	.17	.10	.11	.06	.04	.00	.00
MEAN	LB	.20		1.000							.022*
	UB	.18			1.000						.010*
	LE	.17				.274					.012*
	UE	.10					1.000				.552
	LLI	.11						.663			.317
	ULI	.06							1.000		.962
	UI	.04								.998	.998
	Ad	.00									1.000

Table 7.25 shows no significant change in the mean usage rates of the nontarget choice *PM, and this is clearly due to the relatively low mean usage rates of this choice across the different proficiency groups. Further, this table shows that the L2 participants' mean usage

rate of the nontarget choice *PM becomes non-significantly different from that in the control group in the UE group.

Table 7.26

FCET (mass/count): Paired Samples t-tests of Mean Usage Rates of the Different Choices

CHOICE	Mean	SD	Sig. (2-tailed)		
			*MP - *PM*	*MP - *A+M*	**PM - *A+M*
LB					
MP (target)	.39	.492			
*PM	.20	.407	.095	.875	.067
*A+M	.41	.497			
UB					
MP (target)	.33	.472			
*PM	.18	.386	.015**	.044**	.001**
*A+M	.49	.502			
LE					
MP (target)	.45	.498			
*PM	.17	.374	.001**	.303	.001**
*A+M	.38	.488			
UE					
MP (target)	.66	.474			
*PM	.10	.294	.001**	.001**	.001**
*A+M	.24	.430			
LLI					
MP (target)	.63	.483			
*PM	.11	.318	.001**	.001**	.003**
*A+M	.25	.435			
ULI					
MP (target)	.70	.459			
*PM	.06	.230	.001**	.001**	.001**
*A+M	.24	.430			
UI					
MP (target)	.85	.362			
*PM	.04	.193	.001**	.001**	.025**
*A+M	.12	.321			
Ad					
MP (target)	.94	.240			
*PM	.00	.000	.001**	.001**	.083
*A+M	.06	.240			

Note. *nontarget.
**p<.05.

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Table 7.26 compares the mean usage rates of the different choices within each proficiency group. In the LB group, the results show no significant difference between the mean usage rates of the different choices. In the UB group, the mean usage rate of the target choice *MP* becomes significantly higher than that of the nontarget choice **PM*. At the same time, the mean usage rate of the nontarget choice **A+M* becomes significantly higher than that of the target choice *MP* and the nontarget choice **PM* in the same group. The results thus far suggest that the L2 participants prefer using the nontarget choice **A+M* over using the target choice *MP* and the nontarget choice **PM*. In the LE group, the results show that there is no significant difference between the mean usage rates of the target choice *MP* and the nontarget choice **A+M*. At the same time, the results show that the mean usage rate of the nontarget choice **PM* is significantly lower than those of the target choice *MP* and the nontarget choice **A+M*. In the UE group, the participants tend to use the target choice *MP* over the other nontarget choices. This is suggested by the significant higher mean usage rate of the target choice *MP* in comparison with those of the nontarget choices. The results in the UE group might indicate the L2 participants' start differentiating between indefinite mass NPs and indefinite count NPs. However, the results in the UE group show the participants' preference of using the nontarget choice **A+M* over using the nontarget choice **PM*. The results for the UE group are also found in the LLI, ULI and UI groups. That is, the participants continue using the target choice *MP* at higher rates compared to the other two nontarget choices **PM* and **A+M*, while they prefer to use the nontarget choice **A+M* over the nontarget choice **PM* in these proficiency groups. In the Ad group, the participants overcome their persistent preference of using the nontarget choice **A+M* in comparison with the nontarget choice **PM* in these test items. This is demonstrated by the non-significant difference between the mean usage rates of the nontarget choices **PM* and **A+M* due to their low mean usage rates.

The results of paired samples t-tests offered two important observations. First, it is only in the UE group where the participants started to differentiate between indefinite mass NPs and indefinite count NPs, while they did not in the LB, UB and LE groups. Secondly, in the UE, LLI, ULI and UI groups, there was a persistent tendency to use the nontarget choice **A+M*, which finally disappeared in the Ad group.

To sum up, the results of the test items on the mass/count distinction showed that the L2 participants used the different choices inaccurately in the first three proficiency groups: LB, UB and LE. In the UE group, the participants' significant change towards target-like performance was first observed. At the same time, the L2 participants tended to reject the use

of the nontarget choice *PM* in the same group. The results also showed that the L2 participants' mean usage rates of the target choice *MP* and the nontarget choice **A+M* remained significantly different from the control group until the UI and Ad groups. This suggests the difficulty the L2 participants found in distinguishing between indefinite mass NPs and indefinite count NPs.

It seems that the results of the test items on the mass/count distinction are mostly consistent with that in the indefinite mass context provided in Section 7.2.2.4. In other words, the results in these two different item types have revealed the L2 participants' persistent difficulty in distinguishing between indefinite mass NPs and indefinite count singular NPs until the UI and Ad groups.

Section 7.2.2 has thus far provided the results in four different contexts: definite, indefinite singular, indefinite plural and indefinite mass. It has also provided the results in the test items on mass/count distinction. The observations found in this section preliminary suggest that, first, the SA-English acquisition of the article *the* is less difficult than the acquisition of the other articles. Secondly, the acquisition of the article *a* is less difficult than the acquisition of the article *null*. Third, the acquisition of the article *null* used with indefinite mass NPs is more difficult than the acquisition of the article *null* used with indefinite plural NPs.

For more illustration of these findings provided above, the following section provides detailed cross-context comparisons of the results found in Section 7.2.2.

7.2.2.6.   *Cross-context comparisons.*

This section compares the L2 participants' performance across the different contexts. What follows are the observations of comparing the results found across the different contexts.

The first observation concerns the random pattern in the lower proficiency groups. In the definite context and indefinite singular context, the results showed that the participants in the LB and UB groups were using the different articles randomly. On the other hand, in the indefinite plural and mass contexts, this random pattern was observed more persistently in the LB, UB and LE groups. This suggests the higher difficulty in the SA-English acquisition of the article *null* compared to the acquisition of the articles *the* and *a*.

The second observation involves the significant increase towards target-like performance which was first observed in the definite context by the LE group, while it was observed in the UE group in the other indefinite contexts. This suggests that the L2 participants found the acquisition of the article *the* less difficult than the acquisition of the articles *a* and *null*.

The third observation involves target-like performance in the different contexts. The results showed that the participants became non-significantly different from the control group in the ULI group in the following contexts: definite, indefinite singular and indefinite plural. On the other hand, in the indefinite mass context, the participants remained significantly different from the control group until the UI group. This provides evidence for the difficulty the L2 participants found in the acquisition of the article *null* used with indefinite mass NPs in comparison with the other articles.

The fourth observation concerns the residual use of the nontarget article *a* with indefinite mass NPs. Contrary to what was found in the results of the nontarget articles with the different NPs, the results of the indefinite mass context showed that there was no significant decrease in the mean usage rates of the nontarget article *a* between a proficiency group and its successive group. Also, the results showed that the mean usage rates of this article in the same context remained significantly different from the control group until the UI and Ad groups. It seems that this is due to the difficulties the L2 participants found in differentiating between indefinite mass NPs and indefinite count singular NPs, which is ascribed to the absence of a mass-marking morpheme in mass nouns in English. More evidence for this finding comes from the results of the mean usage rates of the nontarget choice *A+M in the test items of mass/count distinction. That is, the results in these test items showed that the mean usage rates of the nontarget choice *A+M remained significantly different from the control group until the UI and Ad groups.

After reporting the main observations found in the results, Figure 7.7 compares the L2 participants' mean rates of accuracy across the different contexts.
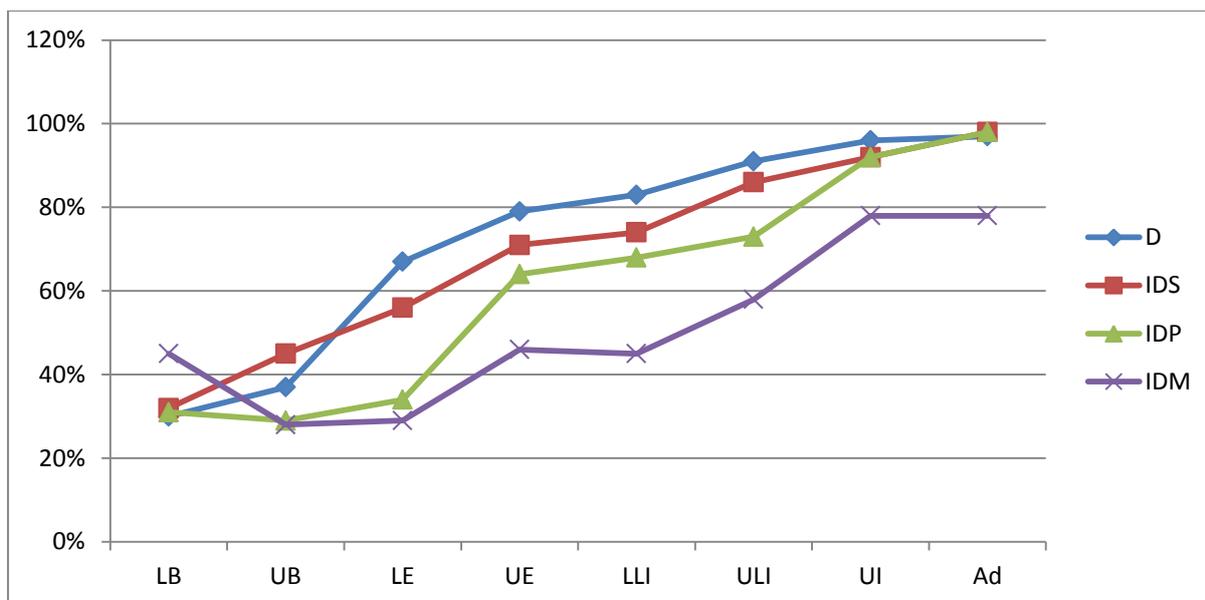
Figure 7.7. FCET: Mean rates of accuracy in the different contexts

Note. D= definite; IDS=indefinite singular; IDP=indefinite plural; IDM= indefinite mass.

Figure 7.7 provides a clearer picture of the L2 participants' mean rates of accuracy across the different contexts. This figure shows that the L2 participants' mean rates of accuracy in the definite context were higher than those in the other contexts in the LE, UE, LLI, ULI and UI groups. At the same time, the mean rates of accuracy in the indefinite singular context were higher than those in the indefinite plural and mass contexts in the LE, UE, LLI and ULI groups. Further, the mean rates of accuracy in the indefinite plural context were higher than those in the indefinite mass context in most of the proficiency groups. Therefore, based on this figure, the hierarchy of the L2 participants' mean rates of accuracy in the different contexts is as follow:

- Definite > Indefinite Singular > Indefinite Plural > Indefinite Mass

Paired samples t-tests were used to compare the mean rates of accuracy across the different contexts and the results are provided in Table 7.27.

Table 7.27

Paired Samples t-test of Mean Rates of Accuracy across the Different Contexts

	Sig. (2-tailed)							
	LB	UB	LE	UE	LLI	ULI	UI	Ad
Definite - IDS	.849	.815	.001*	.012*	.026*	.229	.656	1.000
Definite - IDP	.849	.050*	.001*	.001*	.001*	.001*	.198	.322
Definite - IDM	.058	.075	.001*	.001*	.001*	.001*	.001*	.001*
IDS - IDP	.727	.007*	.001*	.052	.166	.001*	1.000	1.000
IDS - IDM	.055	.002*	.001*	.001*	.001*	.001*	.002*	.003*
IDP - IDM	.261	.774	.222	.001*	.001*	.001*	.002*	.003*

Table 7.27 shows that the mean rates of accuracy in the definite context were significantly higher than those in the other indefinite contexts in many proficiency groups. Note that the L2 participants' mean rates of accuracy in the indefinite contexts never became significantly higher than those in the definite context.

In terms of the different indefinite contexts, this table shows that the mean rates of accuracy in the indefinite singular context were significantly higher those in the indefinite plural and mass contexts in many proficiency groups. Interestingly, the mean rates of accuracy in the indefinite plural and mass contexts never became significantly higher than those in the indefinite singular context. Furthermore, the mean rates of accuracy in the indefinite plural context were significantly higher than those in the indefinite mass context in five proficiency groups: UE, LLI, ULI, UI and Ad, but never vice versa.

For clarification, Table 7.28 summarises the main observations of the L2 participants' performance in the FCET.

Table 7.28

(FCET) L2 Participants' Performance across the Proficiency Groups

Level	Context	Main observations
LB	D	・ Randomness
	IDS	・ Randomness
	IDP	・ Randomness
	IDM	・ Randomness
UB	D	・ Randomness
	IDS	・ Randomness
	IDP	・ Randomness
	IDM	・ Randomness
LE	D	・ Significant increase (target article *the*)
	IDS	・ Gradual increase (target article *a*)
	IDP	・ Randomness
	IDM	・ Randomness
UE	D	・ Significant increase (target article *the*)
	IDS	・ Significant increase (target article *a*)
	IDP	・ Significant increase (target article *null*)
	IDM	・ Significant increase (target article *null*) ・ Clear overuse of *a
LLI	D	・ None
	IDS	・ None
	IDP	・ None
	IDM	・ Clear overuse of *a, not statistically significant though
ULI	D	・ Non-significant difference from control group
	IDS	・ Non-significant difference from control group
	IDP	・ Non-significant difference from control group
	IDM	・ Significant difference from control group ・ Clear overuse of *a
UI	D	・ Non-significant difference from control group
	IDS	・ Non-significant difference from control group
	IDP	・ Non-significant difference from control group ・ Significant increase (target article *null*)
	IDM	・ Non-significant difference from control group ・ Significant increase (target article *null*) ・ Clear overuse of *a, not statistically significant though
Ad	D	・ Non-significant difference from control group
	IDS	・ Non-significant difference from control group
	IDP	・ Non-significant difference from control group
	IDM	・ Non-significant difference from control group ・ Clear overuse of *a, not statistically significant though

Table 7.28 includes the main observations in the SA-English acquisition of the different articles which have been reported thus far in Section 7.2.2.6.

To sum up, this section has shown that the L2 participants went through a phase where they used the different articles randomly. This phase lasted for a longer time in the L2 acquisition of the article *null* (LB, UB and LE groups) compared to the L2 acquisition of the articles *the* and *a* (LB and UB groups). This section has also provided a clearer picture of the level of difficulty in the SA-English acquisition of articles. First, the SA-speaking L2 learners of English have found the acquisition of the article *the* less difficult than the acquisition of the articles *a* and *null*. Also, they have found the acquisition of the article *a* less difficult than the acquisition of the article *null*. Further, they have found the acquisition of the article *null* used with indefinite plural NPs less difficult than the acquisition of the article *null* used with indefinite mass NPs. This section has also shown that the L2 participants encountered difficulties in distinguishing between indefinite mass NPs and indefinite count singular NPs (i.e., they sometimes considered indefinite mass NPs as indefinite singular NPs). This led to an observable residual overuse of the nontarget article *a* with indefinite mass NPs.

7.3.   Discussion

The aim of the present study is to test two hypotheses: the FH (Ionin, 2003; Ionin et al., 2004; Ionin et al., 2008) and FRH (Lardiere, 2008, 2009a, 2009b) as well as to test the extended version of Slabakova's (2009) proposal provided in Figure 5.2. It will be shown in this section that the FH cannot account for the results of the FCET. Moreover, it will be shown that the results of the FCET partially support the extended version of Slabakova's proposal. This section will also show that mapping, as proposed in the present study, can explain the SA-English acquisition of the article *the* whereas it partially explain the acquisition of the articles *a* and *null*. Further, this section will provide evidence for the significance of the proposed role of detectability in L2 acquisition. Additionally, it will be shown that the FRH can provide a better explanation for SA-English acquisition of the articles *a* and *null*, but it is slightly different from how it was proposed earlier in Chapter 5. For these reasons, a feature reassembly-based explanation for L2 acquisition will be proposed in Chapter 9.

I now discuss the main observations of the results of the FCET in light of the hypotheses introduced in Chapter 5. In this section, I first discuss the hypothesis based on the

FH (Ionin, 2003; Ionin et al., 2004, Ionin et al., 2008). After that, I discuss the hypothesis based on the FRH (Lardiere, 2008, 2009a, 2009b). Then, I discuss the hypothesis based on the extended version of the Slabakova's (2009) cline of difficulty in L2 acquisition of the grammatical features presented in Figure 5.2. Finally, I discuss the hypothesis which addresses the role of the absence of a mass-marking morpheme in mass nouns in the SA-English acquisition of the article *null*, which is used with indefinite mass NPs.

To reiterate, the hypothesis based on the FH (Ionin, 2003; Ionin et al., 2004, Ionin et al., 2008) is recapped in (2).

(2) Hypothesis: (The Fluctuation Hypothesis; Ionin et al., 2008)

L1 transfer overrides fluctuation in the L2 acquisition of definiteness in English by SA L1 speakers.

It appears that the ACP (Ionin, 2003; Ionin et al., 2004, Ionin et al., 2008) cannot explain the L2 acquisition of definite and indefinite articles in English by SA L1 speakers. According to the hypothesis in (2), the SA-speaking L2 learners are predicted to transfer the definiteness setting of the ACP from SA to L2 interlanguage in the acquisition of definite and indefinite articles. The process of transferring the parameter setting from L1 to L2 interlanguage seems inadequate to account for difference performance found in the definite and indefinite contexts. That is, the results showed that the L2 participants' mean accurate usage rates in the definite context were significantly higher than those in the indefinite context in many proficiency groups. Further, the L2 participants' non-significant difference from the control group was observed at an earlier stage in the definite context (ULI group) compared to the indefinite context (UI group). These observations suggest that the SA-English acquisition of definite article *the* is less difficult than the acquisition of indefinite articles *a* and *null*. Thus, transferring the definiteness setting of the ACP appears insufficient to explain the SA-speaking L2 learners' performance in the acquisition of definite and indefinite articles in English. That is, it seems that there are other factors responsible for this variability in the SA-speaking L2 learners' performance which are not addressed by the parameter resetting's viewpoint of the SA-English acquisition of definite and indefinite articles as a task of transferring the setting of the ACP from L1 to L2 interlanguage. Thus, the results in the FCET does not support the hypothesis in (2) based on the FH.

Now, the hypothesis which is based on the FRH is repeated in (3).

(3) Hypothesis: (The Feature Reassembly Hypothesis; Lardiere, 2008, 2009a, 2009b)

The SA-speaking L2 learners of English will find the acquisition of the definite article *the* less difficult than the acquisition of the indefinite articles *a* and *null*.

The main observations of the results of the FCET showed that the SA-English acquisition of the definite article *the* was less difficult than the acquisition of the indefinite articles *a* and *null*. This supports the hypothesis in (3). Thus, it appears that the FRH (Lardiere, 2008, 2009a, 2009b) can provide a better explanation for the SA-English acquisition of articles.

I move to the next hypothesis which is a subhypothesis of the main hypothesis in (3). This subhypothesis is based on the extended version of Slabakova's (2009) cline of difficulty in L2 acquisition. This hypothesis is recapped in (4).

(4) Hypothesis: (The Extended version of Slabakova Proposal; 2009)

The SA-speaking L2 learners of English will find the acquisition of the definite article *the* the least difficult compared to the acquisition of indefinite articles *a* and *null*. Further, they will find the acquisition of the article *a* less difficult than the acquisition of the article *null*.

The results of the FCET support, for the most part, the hypothesis in (4). That is, the L2 participants found the acquisition of the definite article *the* less difficult than the acquisition of the indefinite articles *a* and *null*. Further, the acquisition of the indefinite article *a* was less difficult than the acquisition of the indefinite article *null*. However, the hypothesis in (4) was not able to account for the difference found between the acquisition of the article *null* used with indefinite plural NPs and the acquisition of the article *null* used with indefinite mass NPs. That is to say, the results showed that the acquisition of the article *null* used with indefinite plural NPs was less difficult than the acquisition of the article *null* used with indefinite mass NPs (this point will be elaborated on later in this section).

Recall that based on Slabakova (2009), the realisation of a feature morphologically or contextually is predicted to play a role in L2 acquisition. However, Slabakova does not highlight the role of the nature of the morphological realisation (i.e., overt target items or null target item) in L2 acquisition. For this reason, I have argued that the L2 acquisition of a null target item will be more difficult than the acquisition of an overt target item due to the role of detectability. It appears that the results of the FCET provide evidence for the role of

detectability in L2 acquisition. This was suggested by the L2 participants' superior performance in the indefinite singular context (article *a*) compared to the indefinite plural and mass contexts (article *null*).

Further, the results of the FCET showed that mapping and feature reassembly, as proposed by the predictions of this hypothesis, were partially borne out.

Before discussing the main observations of the results of the FCET in the light of the hypothesis in (4), an important point should be highlighted. The results of the FCET showed that the L2 participants were using the different articles randomly at the initial stage of acquisition, which is arguably due to their inability to interpret the different contexts appropriately. It is sensible to assume that in order for feature reassembly to take place, the L2 learners should have a minimum knowledge about the property to be acquired. For this reason, the L2 acquisition cannot be investigated in those proficiency groups, where random use of the different articles takes place, from the viewpoint of the FRH (Lardiere, 2008, 2009a, 2009b).

Now, the main observations will be discussed in the light of the FRH (Lardiere, 2008, 2009a, 2009b), starting with those in the definite context.

Recall that it was predicted to observe high accurate usage rates of the target article *the* in the definite context once the SA-speaking L2 learners of English have mapped the article *al* (the) in L1 to the article *the* in L2 input. Further, this mapping should consequently lead to low mean usage rates of the nontarget articles **a* and **null* in the same context. It appears that the results supported these predictions, given that these observations were met in the LE group. The results in the LE group showed that there was a significant increase in the mean usage rate of the target article *the* in the definite context, as well as significant decreases in the mean usage rates of the articles **a* and **null* in the same context. Another significant change in the definite context was also observed in the UE group, where the mean usage rate of the target article *the* increased significantly while the mean usage rate of the article **a* decreased significantly. It seems that these observations provide evidence for the mapping of the article *al* (the) in L1 to the article *the* in the L2 input. Accordingly, the feature set of the article *the* in the SA-speaking L2 learner's interlanguage in the LE group includes the feature [+definite] as shown in (5).

(5) Feature set of the article *the* in SA-speaking L2 learner's interlanguage from the LE group

$$the$$
$$\begin{bmatrix} + \text{ definite} \end{bmatrix}$$

Now I discuss the main observations of the results in the indefinite contexts. To reiterate, according to the predictions, which are based on the FRH (Lardiere, 2008, 2009a, 2009b) and the extended version of Slabakova's (2009) proposal, once the SA-speaking L2 learners of English map the article *null* in the L1 to the article *a* in L2 input, the feature set of this article in the L2 interlanguage should include only the feature [-definite]. Therefore, high mean usage rates of the article *a*, and low mean usage rates of the articles *the* and *null* should be observed in all indefinite context. Further, once those learners map the article *null* in the L1 to the article *null* in the L2 input, the feature set of this article in the L2 interlanguage should include only the feature [-definite]. Thus, high mean usage rates of the article *null* should be observed in all indefinite contexts. Accordingly, these L2 learners at this stage are expected to use the two articles *a* and *null* interchangeably (i.e., randomly), in all indefinite contexts, given that the feature sets of the two articles in the L2 interlanguage include only the feature [-definite]. Bear in mind that it has been argued that the high usage rates of the article *null* in all indefinite contexts should be observed after the high usage rates of the article *a* in the same contexts. This is ascribed to the assumption that mapping the article *null* in the L1 to the article *a* in the L2 input is predicted to emerge earlier than mapping the article *null* in the L1 to the article *null* in the L2 input. This is attributed to the assumption that overt target items, as in the article *a* are more detectable than null target items, as in the article *null*.

After the mapping phase, those learners were predicted to reassemble the feature sets of the indefinite articles in the L2 interlanguage to the form they are required in L2 (i.e., adding the features [+count [-plural]] to the feature set of the article *a*, and adding the features [+count [+plural]] or [-count], depending on the type of noun in question [count plural or mass] to the feature set of the article *null*). Adding these features is predicted to be aided by available evidence in L2 input; hence, this would not post any learnability difficulty.

It appears that the results show that mapping and feature reassembly in the SA-English acquisition of indefinite articles as predicted in the present study, did not take place. An explanation of this observation is provided later in this section.

In terms of the article *a*, the results showed that there was a significant increase in the mean usage rate of this article only in the indefinite singular context in the UE group. However, there was a significant decrease in the mean usage rate of this article in the indefinite plural context in the same proficiency group. Thus, the results provide evidence that the feature set of the article *a* in the SA-speaking L2 learner's interlanguage in the UE group includes the features [-definite] and [+count [-plural]] rather than just the feature [-definite].

In terms of the article *null*, there was a significant increase in the mean usage rates of this article only in the indefinite plural and mass contexts in the UE group. However, there was a significant decrease in the mean usage rate of this article in the indefinite singular context in the same proficiency group. Accordingly, this suggests that the feature set of the article *null* in the SA-speaking L2 learner's interlanguage at this stage does not include only the feature [-definite]; rather, it includes the features [-definite] and [+count [+plural]] or [-definite] and [-count].

Another main observation was found in the results in the indefinite mass context. The L2 participants in this context had persistent difficulties in differentiating between indefinite mass NPs and indefinite singular NPs. This was indicated by the relatively high mean usage rate of the article **a* with indefinite mass NPs in the UE group and in higher proficiency groups. Interestingly, this provided evidence for the role of the absence of a mass-marking morpheme in mass nouns in the SA-English acquisition of the article *null* used with indefinite mass NPs (more illustration is provided once the hypothesis in [8] is discussed).

The feature sets of the two articles *a* and *null* in the SA-speaking L2 learner's interlanguage in the UE group are provided in (6).

(6) Feature sets of the articles *a* and *null* in SA-speaking L2 learner's interlanguage in the UE group

$$
\begin{array}{ccc}
a & null \text{ `Plural NPs'} & null \text{ `Mass NPs'} \\[4pt]
\begin{bmatrix} -\text{definite} \\ +\text{count} \\ [\,-\text{plural}\,] \end{bmatrix} &
\begin{bmatrix} -\text{definite} \\ +\text{count} \\ [\,+\text{plural}\,] \end{bmatrix} &
\begin{bmatrix} -\text{definite} \\ -\text{count} \end{bmatrix}
\end{array}
$$

The main observations of the results in the different indefinite contexts provide evidence that mapping in the acquisition of indefinite articles as predicted in the present study, did not take place. However, it appears that the SA-speaking L2 learners seem to map the article *null* in

SA to the articles *a* and *null* and simultaneously reassemble the feature sets of these articles to the way they are required in L2. For this reason, the two articles, predominantly, were used with the appropriate NP. To reiterate, this study predicted that the consequences of the mapping in the SA-English acquisition of the indefinite articles *a* and *null* will lead to the feature sets of these articles including only the feature [-definite], hence, these two articles will be used interchangeably with every indefinite NP. In contrast, the results in the FCET showed that the L2 participants used, for the most part, these two articles with the accurate NP, suggesting that mapping and feature reassembly take place at the same time in the SA-English acquisition of indefinite articles *a* and *null*.

Further, the current study raised a question which addresses the role of the absence of a mass-marking morpheme in mass nouns in English in the L2 acquisition of the article *null* used with indefinite mass NPs by SA L1 speakers. This question is recapped in (7) and it will be discussed in the light of the FRH (Lardiere, 2008, 2009a, 2009b).

(7) Research Question

Will the SA-speaking L2 learners of English consider mass NPs as singular NPs due to the absence of a mass-marking morpheme in mass nouns in English?

(8) Hypothesis

Absence of a mass-marking morpheme in mass nouns in English plays a role in the SA-English acquisition of the article *null* that is used with indefinite mass NPs.

According to the hypothesis in (8), the L2 participants were predicted to consider indefinite mass NPs as indefinite singular NPs, due to the absence of a mass-marking morpheme in mass nouns in English. Thus, persistent high usage rates of the article **a* should be observed with indefinite mass NPs. Further, it was predicted that the SA-English acquisition of the article *null* used with indefinite mass NPs will be more difficult than the acquisition of the article *null* used with indefinite plural NPs.

The main observations of the results of the FCET support, for the most part, the hypothesis in (8). Although the L2 participants did not predominantly consider indefinite mass NPs as indefinite singular NPs, Sections 7.2.2.4 and 7.2.2.5 show that these participants encountered persistent difficulties in differentiating between indefinite mass NPs and indefinite count singular NPs. To illustrate, it was shown that there were relatively persistent high mean usage

rates of the nontarget article *a with indefinite mass NPs in the LE, UE, LLI and ULI groups. That is, the participants sometimes seemed to consider indefinite mass NPs as indefinite singular NPs, especially in the ULI group and lower proficiency groups. Also, the SA-speaking L2 learners of English found the acquisition of the article *null* used with indefinite mass NPs more difficult than the acquisition of the article *null* used with indefinite plural NPs. This was suggested by the participants' superior performance in the indefinite plural context compared to that in the indefinite mass context in the following proficiency groups: UE, LLI, ULI, UI and Ad as shown in Figure 7.7 and Table 7.24.

Comparing the L2 participants with the control group provides more evidence for the higher level of difficulty in the SA-English acquisition of the article *null* used with indefinite mass NPs compared to the acquisition of the article *null* used with indefinite plural NPs. It was shown that the mean usage rates of the target article became non-significant from the control group at an earlier stage in the indefinite plural context (ULI group) compared to the indefinite mass context (UI group). Therefore, it appears that the absence of a mass-marking morpheme in mass nouns in English plays a role in the SA-English acquisition of the article *null* used with indefinite mass NPs. Bear in mind that this pattern (i.e., use of the article *a with indefinite mass NPs), did not occur with indefinite plural NPs. In contrast, the results showed that there was a significant decrease in the mean usage rate of the article *a in the indefinite plural context in the UE group. It appears that the revised cline of difficulty in L2 acquisition acknowledges only the role of detectability of the target items (i.e., articles). However, the results showed that the role of detectability must also be considered with supporting evidence that is related to the target item. This is represented in the current study through the (un)availability of a morphological marker of the noun that is related to the target item (i.e., mass nouns without a mass-marking morpheme versus plural nouns with plural-marking morpheme). Thus, this explains why the proposed version of the cline of difficulty in L2 acquisition could not account for the differences found between the SA-English acquisition of the article *null* used with indefinite plural NPs, and the acquisition of the article *null* used with indefinite mass NPs. This point will be elaborated on further in Chapter 9.

7.4.   Summary of Chapter 7

The results of FCET support the FRH (Lardiere, 2008, 2009a, 2009b) rather than the FH (Ionin, 2003; Ionin et al., 2004; Ionin et al., 2008). Further, this chapter has shown that

mapping, as predicted in the current study, was only observed in the SA-English acquisition of the definite article *the* while it was not in the acquisition of the indefinite articles *a* and *null*. In contrast, it has been shown that mapping and feature reassembly took place at the same time in the L2 acquisition of the indefinite articles. For this reason, no interchangeable use of these two articles was observed in the L2 participants' performance in the indefinite contexts. This chapter has also shown that the results partially support the extended version of Slabakova's (2009) cline of difficulty in L2 acquisition. Specifically, L2 participants found the acquisition of the article *the* less difficult than the acquisition of the articles *a* and *null* and this is consistent with the extended version of Slabakova's cline. Further, the acquisition of the article *a* was less difficult than the acquisition of the article *null*, and this provides evidence for the significant role of detectability of the target item in L2 acquisition and this also consistent with the extended version of Slabakova's cline. However, it has been shown that the acquisition of the article *null* used with indefinite plural NPs was less difficult than the acquisition of the article *null* used with indefinite mass NPs. This was inconsistent with the extended version of Slabakova's (2009) cline of difficulty in L2 acquisition, which disregards the role of detectability of the supporting evidence that is related to the target item in L2 acquisition. Thus, I argue that the absence of a mass-marking morpheme in mass nouns leads the SA-speaking learners to encounter difficulty in differentiating between indefinite mass NPs and indefinite count singular NPs in English.

Chapter 8

Written Translation Test

Results and Discussion

8.1.   Introduction

This chapter is dedicated to the Written Translation Test. The layout of this chapter is as follows: Section 8.2 presents the results in the WTT. Section 8.3 discusses the results in the WTT in the light of the hypotheses of the current study. Finally, Section 8.4 provides the summary of this chapter.

8.2.   Results

This section reports the descriptive and statistical results of the WTT. In this section, there are two subsections. The first compares the rates of accuracy between the definite and indefinite contexts, while the second presents the mean usage rates of different responses in each particular context: definite, indefinite singular, indefinite plural and indefinite mass.

What follows is the first subsection, which compares the rates of accuracy in the definite and indefinite contexts.

8.2.1.   Rates of accuracy in the definite and indefinite contexts.

In the WTT, there are thirty items; fifteen definite items and fifteen indefinite items. The participants were asked to translate these items (sentences) from SA into English. In order to have an overview of the participants' performance in the WTT, the mean accurate usage rates in the definite and indefinite contexts for the different proficiency groups are provided in Figure 8.1.
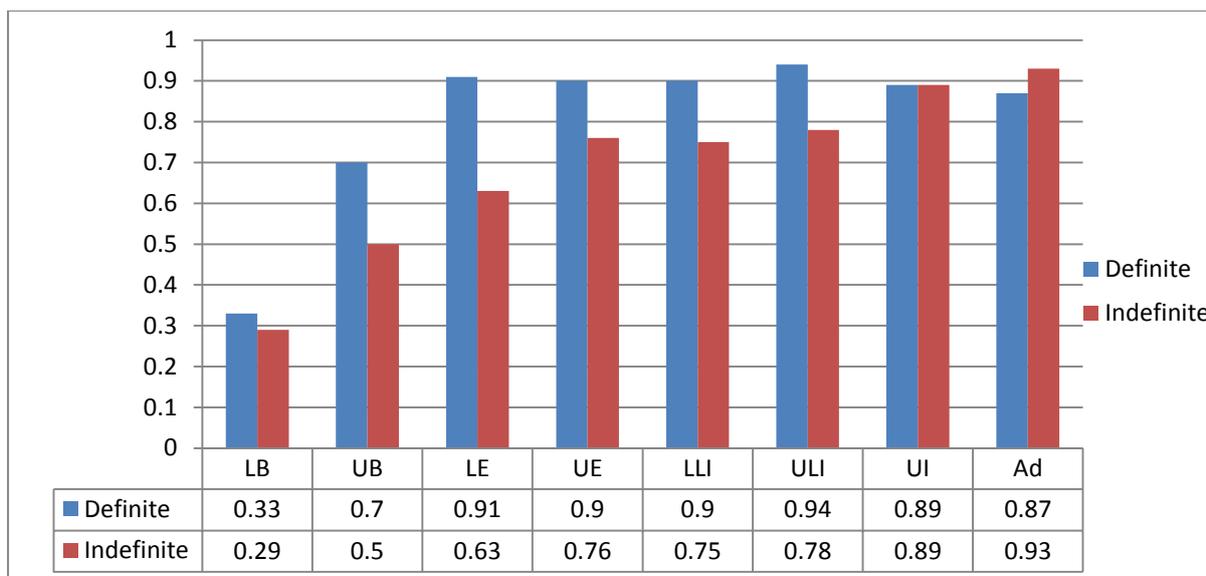
Figure 8.1. WTT: Mean accurate usage rates in definite and indefinite contexts for each proficiency group.

A series of one-way ANOVAs shows that there is a significant difference in the mean accurate usage rates between the different proficiency groups in each context: definite and indefinite ($p<.001$). This test is followed by post hoc (TUKEY, HSD) tests, which aim to measure the statistical differences between the mean accurate usage rates in each proficiency group and its succeeding proficiency group. Consider the following table:

Table 8.1

WTT: Results of Post hoc (TUKEY, HSD) Tests of the Accuracy Rates in Definite and Indefinite Contexts Between the Proficiency Groups

LEVELS	Post hoc (TUKEY, HSD)	
	DEFINITE CONTEXT	INDEFINITE CONTEXT
LB-UB	.001*	.432
UB-LE	.001*	.291
LE-UE	1.000	.027*
UE-LLI	1.000	.998
LLI-ULI	.827	.994
ULI-UI	.701	.231
UI-Ad	.999	.999

Table 8.1 puts together all the statistical changes in the mean accurate usage rates in the definite and indefinite contexts. The significant changes are highlighted, as shown in this table. The results show that the participants' mean usage rate of accuracy in the definite context increases significantly between UB and LB groups (p<.001). In the same context, the participants' mean accurate usage rate increases significantly between LE and UB groups (p<.001). On the other hand, in the indefinite context, Table 8.1 shows that the participants' mean usage rate of accuracy increases for the first time between UE and LE groups (p<.027).

It appears that the results thus far indicate that the L2 participants find the acquisition of the definite article less difficult than the acquisition of the indefinite articles, given that the increase in the mean accurate usage rate in the definite context was observed earlier than that in the indefinite context. Further evidence of this observation is provided in the results of the paired samples t-test in Table 8.2 below.

Table 8.2

WTT: (Definite vs. Indefinite) Paired Samples t-tests for Accuracy Rates in all Proficiency Groups

Proficiency group	Means rate of accuracy		Paired samples t-test
	Definite	Indefinite	Definite - Indefinite
LB	.33	.33	.333
UB	.70	.50	.182
LE	.91	63	.001*
UE	.90	.76	.001*
LLI	.90	.75	.002*
ULI	.94	.78	.001*
UI	.89	.89	.518
Ad	.87	.93	.083

Table 8.2 shows that the participants are significantly more accurate in the definite context compared to the indefinite context in the following groups: LE, UE, LLI and ULI.

Similarly to what was suggested in the results of the post hoc tests in Table 8.1, the results in Table 8.2 suggest that the L2 participants find the acquisition of the definite article less difficult than the acquisition of the indefinite articles given that the participants' mean

accurate usage rates in the definite context were significantly higher than those in the indefinite context in four proficiency groups: LE, UE, LLI and ULI.

To sum up, this section has shown that the SA-speaking L2 learners of English found the acquisition of definite articles less difficult than the acquisition of indefinite articles.

Interestingly, the findings of the WTT are thus far compatible with those of the FCET, given that the two tests provide evidence for the less difficulty the L2 participants find in the acquisition of the definite articles compared to the indefinite articles.

The next subsection presents the results in four different contexts: definite, indefinite singular, indefinite plural and indefinite mass for the different proficiency groups.

8.2.2. Mean usage rates of the responses in the different contexts.

In this section, there are five subsections. The first four provide the results in the following contexts: definite, indefinite singular, indefinite plural and indefinite mass. The fifth subsection offers cross-context comparisons. These subsections provide the descriptive and statistical results of the mean usage rates of the different responses in each context.[9]

The following section presents the results in the definite context.

8.2.2.1. Definite context.

Consider Figure 8.2 which provides an overall picture of the participants' performance in the definite context across the proficiency groups. In this context, there are three different responses; target (article *the*), commission (article *a*) and omission.

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[9] See Appendix E for full details about the statistical results within each context in the WTT.

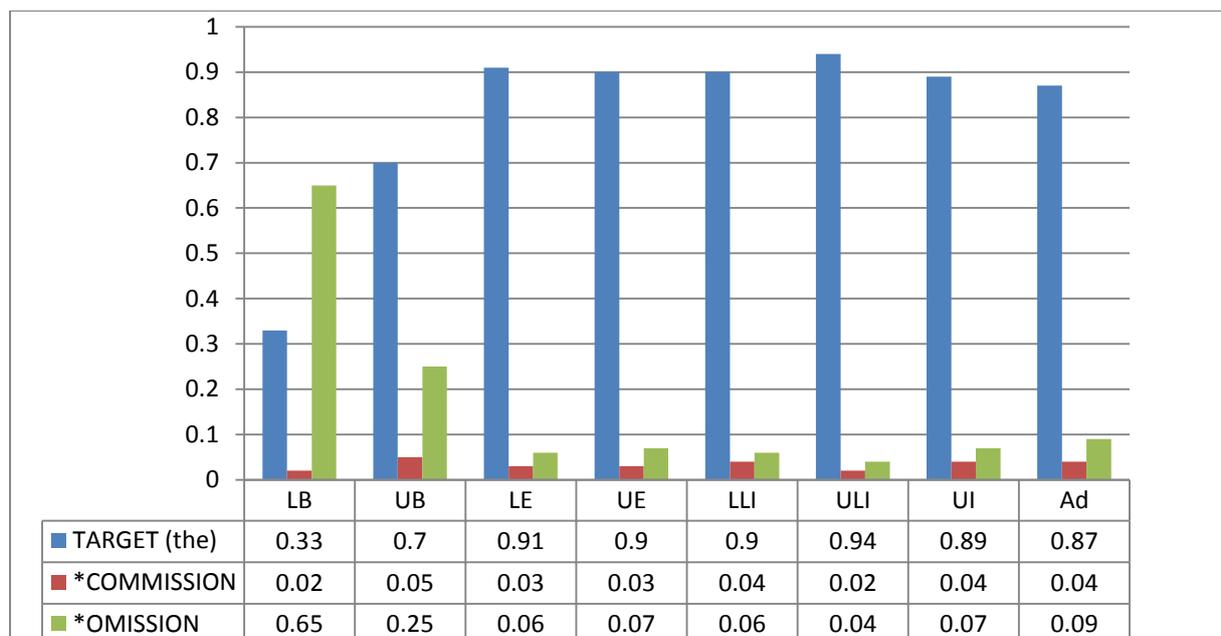|	LB	UB	LE	UE	LLI	ULI	UI	Ad
TARGET (the)	0.33	0.7	0.91	0.9	0.9	0.94	0.89	0.87
*COMMISSION	0.02	0.05	0.03	0.03	0.04	0.02	0.04	0.04
*OMISSION	0.65	0.25	0.06	0.07	0.06	0.04	0.07	0.09

Figure 8.2. WTT: (Definite context) Mean rates for each response for each group.

Note. Commission= use of *a*.

A series of one-way ANOVAs reveals that there is a significant difference in the mean usage rates of the two responses: *target* and *omission* between the different proficiency groups (p< .001). However, the same test shows no significant difference in the mean usage rates of the *commission* response between the different proficiency groups, and this might be due to the low mean usage rates of this response across the different proficiency groups, as shown in Figure 8.2.

A clear observation in Figure 8.2 concerns the high mean rate of *omission* errors in the LB group. Further, this figure shows the participants' high rates of accuracy at an early stage (UB group). Also, when articles were used with the definite NPs, the participants seem to use the target article *the* (i.e., *commission* errors are rare).

Post hoc (TUKEY, HSD) test reveals that there are two significant increases in the mean usage rates of the *target* response (*the*) with the definite NPs: between the UB and LB groups and between the LE and UB groups (p< .001). Further, the same test shows that there are two significant decreases in the mean rates of the *omission* responses: between the UB and LB groups and between the LE and UB groups (p< .001).

Paired samples t-tests show that the mean rate of the *omission* response is significantly higher than the mean usage rate of the *target* article *the* in the LB group (p<.019). In the UB group

and the higher proficiency groups, the mean usage rates of the *target* article *the* become significantly higher than the mean rates of the *omission* errors (p<.001).

This section has shown that the participants' ability to recognise definite NPs was observed at an early stage (UB group) and this was indicated by the significant high mean usage rate of the target article *the* in this proficiency group. This might suggest that mapping the article *al* (the) in the L1 to the article *the* in the L2 input takes place in the UB group. At the same time, this section has revealed that once the L2 participants' accurate recognition of the definite NPs occurred in the UB group and higher proficiency groups, no commission errors were observed in the definite context (i.e., using **a* instead of *the*). Thus, this provides evidence for their ability to differentiate between definite and indefinite NPs.

The following section provides the results in the indefinite singular context.

8.2.2.2. *Indefinite singular context.*

In the indefinite singular context, there are three different types of responses: target (article *a*), commission (article *the*) and omission. Figure 8.3 provides an overview of the results in this context.
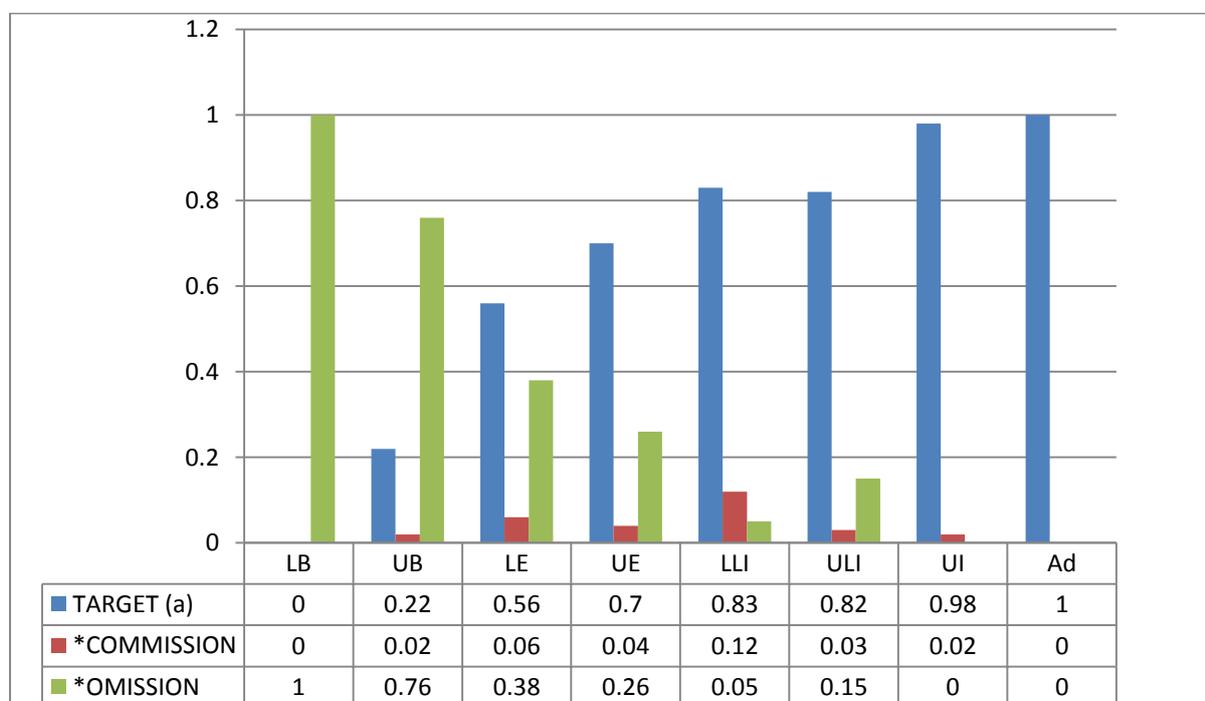

	LB	UB	LE	UE	LLI	ULI	UI	Ad
TARGET (a)	0	0.22	0.56	0.7	0.83	0.82	0.98	1
*COMMISSION	0	0.02	0.06	0.04	0.12	0.03	0.02	0
*OMISSION	1	0.76	0.38	0.26	0.05	0.15	0	0

Figure 8.3. WTT: (Indefinite singular context) Mean rates for each response in each group.

Note. Commission= use of *the*.

A series of one-way ANOVAs shows that there is a significant difference in the mean usage rates of each response with the indefinite singular NPs between the different proficiency groups.

An important observation in Figure 8.3 involves the significant high mean rates of omission errors in the LB and UB group. Moreover, when an article is used, the participants use the target article *a* rather than the article **the* with indefinite singular NPs; thus, commission errors were rare.

Post hoc (TUKEY, HSD) tests show that there is a significant increase in the mean usage rate of the target response *a* with indefinite singular NPs between the LE and UB groups. Further, there are significant decreases in the mean rates of the omission responses between the LE and UB groups and between the LLI and UE groups with the same NPs.

Paired samples t-tests show that the mean rates of the omission responses are significantly higher than the mean usage rates of the target response *a* in the LB and UB groups. The same tests also show that there was no significant difference between the mean rates of the target response *a* and the omission response in the LE group. It is in the UE group and the higher proficiency groups when the mean usage rates of the target response *a* become significantly higher than those of the omission response. Further, these tests show the significant low mean usage rates of the commission response **the* with indefinite singular NPs across the different proficiency groups.

This section has revealed that the participants were not able to recognise indefinite singular NPs appropriately in the LB and UB groups and this was demonstrated by the significant high mean rates of the omission errors in these two proficiency groups. Also, it has been shown that the participants started recognising these NPs in the LE group and this was indicated by the significant increase in the mean usage rate of the target response *a* by this proficiency group. Further evidence of the participants' accurate recognition of indefinite singular NPs came from the rare incidences of commission errors (i.e., using the article **the* with indefinite singular NPs) in the LE group and higher proficiency groups.

The next section provides the results in the indefinite plural context.

8.2.2.3. *Indefinite plural context.*

In the indefinite plural context, the participants' responses are in the form of three different types: target (article *null*), overuse of the article *the* and overuse of the article *a*. Figure 8.4 offers an overview of the participants' performance across the different proficiency groups in this context.
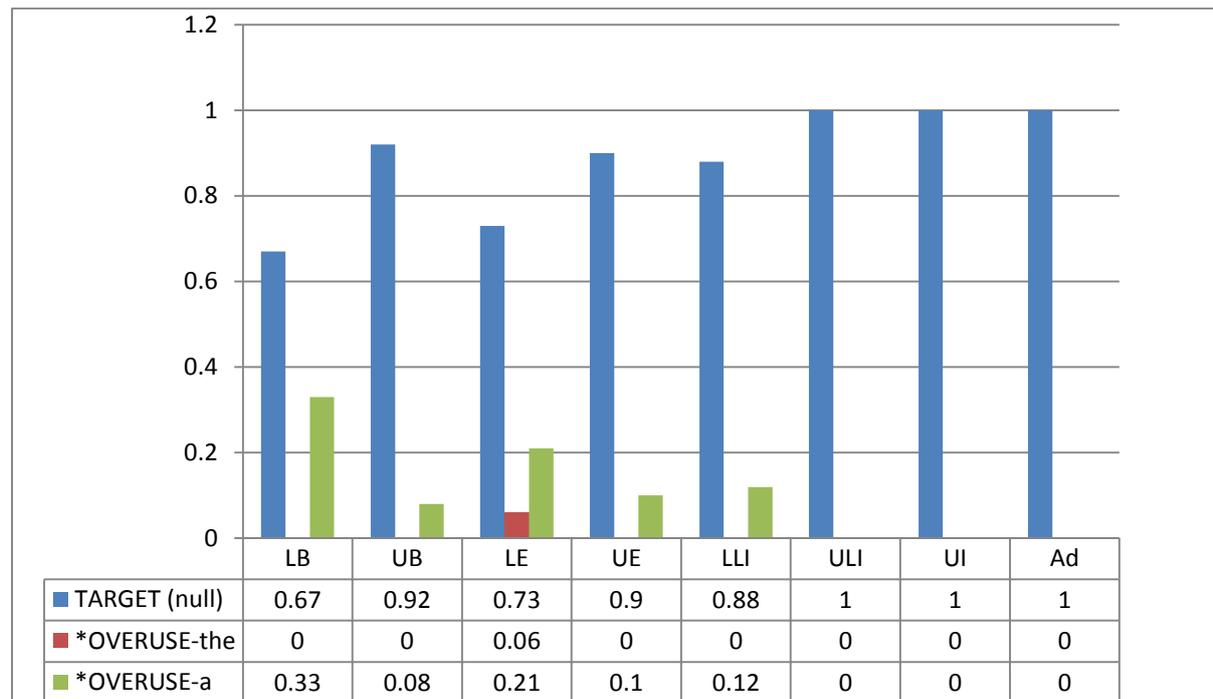

	LB	UB	LE	UE	LLI	ULI	UI	Ad
TARGET (null)	0.67	0.92	0.73	0.9	0.88	1	1	1
*OVERUSE-the	0	0	0.06	0	0	0	0	0
*OVERUSE-a	0.33	0.08	0.21	0.1	0.12	0	0	0

Figure 8.4. WTT: (Indefinite plural context) Mean rates for each response in each group.

A series of one-way ANOVAs shows that there is a significant difference between the mean usage rates of each response with the indefinite plural NPs in the different proficiency groups (p< .001).

At first glance, Figure 8.4 shows the participants' high accurate mean usage rates of the target response (article *null*) with indefinite plural NPs across the different proficiency groups. Nevertheless, the results of the post hoc (TUKEY, HSD) tests suggest that the L2 participants' performance in the first three proficiency groups does not in fact reflect the participants' target-like performance (i.e., using the target article *null*); rather it is a process of omitting the article *null*. This is indicated by the significant decrease of the omission errors with the indefinite plural NPs between UB and LE groups. In other words, if it is assumed that the participants in the LB, UB and LE groups were able to recognise the indefinite plural NPs accurately and used the target article *null*, no significant decrease of this article should be

found between the UB and LE groups. Therefore, it appears that the participants' performance in the indefinite plural context in the LB, UB and LE groups was a pattern of omission rather than one of using the target article *null*. Evidence of the participants' first sign towards target-like performance is observed in the UE group, where the results of the post hoc (TUKEY, HSD) tests show that there is a significant increase in the mean usage rate of the target response, article *null*, compared to the LE group.

Paired samples t-tests show that the mean usage rates of the target response with the indefinite plural NPs are significantly high across the different proficiency groups.

This section has shown that the participants started to recognise the indefinite plural NPs appropriately in the UE group, while they did not in the first three proficiency groups.

8.2.2.4. *Indefinite mass context*.

In the indefinite mass context, there are three different types of responses: target (article *null*), overuse of the article *the* and overuse of the article *a*. Figure 8.5 gives an overview of the results in this context.

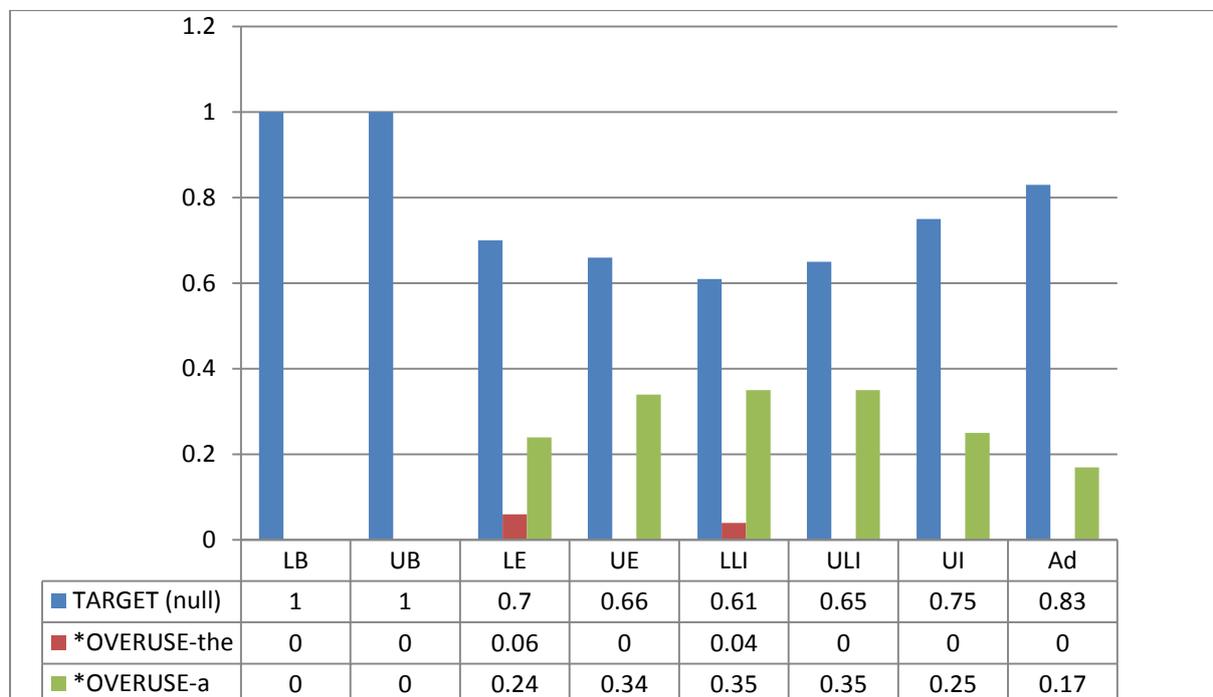|	LB	UB	LE	UE	LLI	ULI	UI	Ad
■ TARGET (null)	1	1	0.7	0.66	0.61	0.65	0.75	0.83
■ *OVERUSE-the	0	0	0.06	0	0.04	0	0	0
■ *OVERUSE-a	0	0	0.24	0.34	0.35	0.35	0.25	0.17

Figure 8.5. WTT: (Indefinite mass context) Mean rates for each response in each group.

A series of one-way ANOVAs shows that there is a significant difference between the mean usage rates of each response with the indefinite mass NPs across the different proficiency groups.

Similarly to what it was found in the results in the indefinite plural context, Figure 8.5 reveals that the participants make omission errors rather than use the article *null* with indefinite mass NPs in the first three proficiency groups: LB, UB and LE. This assumption is attributed to two observations. First, the mean usage rates of the article *null* in the LE group and the higher proficiency groups are lower than the mean usage rates of the same article in the first two proficiency groups. Secondly, the mean usage rates of the article *a* in the LE group and the higher proficiency groups are higher than the mean usage rates of the same article in the first two proficiency groups. That is to say, if it is assumed that the participants in the first proficiency groups were able to recognise the indefinite mass NPs accurately, then a clear decrease of the target article *null* as well as a clear increase of the article *a* should not be observed in LE group. Nevertheless, as stated above, the results in the LE group showed a decrease in the mean usage rate of the target article *null* as well as an increase in the mean usage rates of the article *a*.

This figure also shows the participants' relatively high use of the article *a* with the indefinite mass NPs in the LE group and the higher proficiency groups. This nontarget use might be ascribed to the participants' occasional consideration of indefinite mass NPs as indefinite singular NPs. This finding is consistent with the results in the indefinite mass context in the FCET in Section 7.2.2.4.

The results of post hoc (TUKEY, HSD) tests do not reveal any significant changes in the mean usage rates of the target response (article *null*) and the nontarget response (article *a*) with the indefinite mass NPs between a proficiency group and its following group. This might be attributed to the gradual increase and decrease of the articles *null* and *a* respectively across the different proficiency groups. Therefore, there is no statistical evidence for the participants' first trace towards target-like performance. Still, Figure 8.5 shows that there are relatively steady mean usage rates of the target response in the UE, LLI and ULI groups. Further, there is observable increase in the mean usage rates of the same response in the UI and Ad groups. Thus, it appears that the participants start recognising the indefinite mass NPs in the UE group given that the mean usage rate of the target response remained

steady in this group and in the higher two proficiency groups; contrary to what was found in the LE group, where there was a clear decrease in the mean usage rate of this response.

Paired samples t-tests also show that the mean usage rates of the target response (article *null*) are significantly higher than the mean usage rates of the other nontarget responses with the indefinite mass NPs across the different proficiency groups.

This section has revealed that the participants were not able to recognise the indefinite mass NPs accurately in the first three proficiency groups. Statistical evidence for the participants' ability in recognising this type of NP was not found. Nevertheless, it has appeared that they started recognising the indefinite mass NPs in the UE group. Further, due to the observable usage of the article *a in the LE group and higher proficiency groups, it appears that the participants encountered difficulties in distinguishing between indefinite mass NPs and indefinite count singular NPs in these proficiency groups.

Section 8.2.2 has thus far presented the results in four contexts; definite, indefinite singular, indefinite plural and indefinite mass. Recall that one of the aims of this study is to examine the level of difficulty in the SA-English acquisition of the definite and indefinite articles. Recall also that the WTT is designed to complement the FCET. Specifically, the WTT is designed to provide a better understanding of mapping in the L2 acquisition in the present study. Therefore, the following section outlines the observations in the results of comparing the participants' performance across the investigated contexts to have a better view of the level of difficulty in the SA-English acquisition of definite and indefinite articles. Further, the following section shall provide a clearer picture of how and when mapping takes place in the SA-English acquisition of the definite and indefinite articles.

8.2.2.5. Cross-context comparisons.

This section compares the participants' performance in the different contexts in order to determine the level of difficulty in the SA-English acquisition of the definite and indefinite articles. Also, the aim of this section is to give a clearer view of how and when mapping takes place in the SA-English acquisition of the definite and indefinite articles. Consider the following observations found across the different contexts:

The first observation concerns the participants' different ability in recognising the different NPs. It appears that the participants started to recognise the definite NPs in the UB group,

while their ability to recognise the indefinite NPs was observed in later proficiency groups: indefinite singular NPs in the LE group and indefinite plural and mass NPs in the UE group. This suggests that the participants found the acquisition of the definite article less difficult than the acquisition of the indefinite articles. Further, the acquisition of the indefinite article *a* was less difficult than the acquisition of the indefinite article *null*.

The second observation is about the rare incidences of commission errors. That is to say, the results showed that when articles were used, the participants did not use the article *a with the definite NPs nor the article *the with the indefinite singular NPs across the different proficiency groups. The participants either omitted the articles as in the lower proficiency groups or used them accurately once they started to recognise the NP at issue.

The third observation involves the mean usage rates of the article *a* with the different indefinite NPs. The results showed that mean usage rates of the article *a* with indefinite singular NPs were higher than those of the same article with the indefinite plural and mass NPs (more illustration is provided after presenting the result in Figure 8.8 later in this section). This suggests that mapping the article *null* in L1 to the article *a* in L2 input, as predicted in the present study, did not take place. That is to say, mapping the article *null* in SA to the article *a* in the L2 input in the L2 acquisition of the indefinite article *a* in English was predicted to make the feature set of the article *a* in the L2 learners' interlanguage similar to the feature set of the article *null* in SA, (i.e., includes only the feature [-definite]). Consequently, this was predicted to lead to the use of the article *a* with all indefinite NPs. Nevertheless, the results have suggested that L2 learners have been able to map the article *null* in SA to the article *a* in L2 input and at the same time reassemble the feature set of the article *a* in their interlanguage to the way it is required in English. That is, mapping led the feature set of the article *a* to include the feature [-definite] while feature reassembly led the feature set of this article to include the feature [+count [-plural]].

The fourth observation is about the mean usage rates of the article *null* with the different indefinite NPs. It was shown that the mean usage rates of the article *null* with indefinite plural and mass NPs were higher than those of the same article with indefinite singular NPs (more illustration is provided after presenting Figure 8.9 later in this section). This suggests that mapping the article *null* in the L1 to the article *null* in the L2 input, as predicted in the present study, did not take place. To reiterate, mapping the article *null* in SA to the article *null* in L2 input was predicted to make the feature set of the article *null* in the L2 learners'

interlanguage similar to the feature set of the article *null* in SA, (i.e., including only the feature [-definite]). As a result, this was predicted to lead to the use of the article *null* and *a* interchangeably (i.e., randomly) with all indefinite NPs. Note that it has been argued that the use of the article *a* with all indefinite NPs was predicted to be observed before the use of the article *null* due to the role of detectability of the article *a*. However, the results have suggested that the SA-speaking L2 learners of English have managed to map the article *null* in SA to the article *null* in L2 input and simultaneously reassembling the feature sets of the article *null* in their interlanguage to the way they are required in English. That is, mapping leads the feature sets of the article *null* to include the feature [-definite] while feature reassembly leads the feature sets of this article to include the feature [+count [+plural]] or the feature [-count] based on the type of the noun in question, count plural or mass.

The fifth observation concerns the participants' noticeable use, though not high use, of the article *a* with the indefinite mass NPs in the LE, UE, LLI, ULI, UI and Ad groups as shown in Figure 8.5. This suggests the participants' persistent difficulty to distinguish between indefinite mass NPs and indefinite count singular NPs which might be due to the absence of a mass-marking morpheme in mass nouns in English. Thus, the SA-English acquisition of the article *null* used with indefinite mass NPs seems more difficult than the acquisition of the article *null* used with indefinite plural NPs.

After presenting these different observations of the results of the WTT, Figure 8.6 provides the results of comparing the mean rates of accuracy across the different contexts.
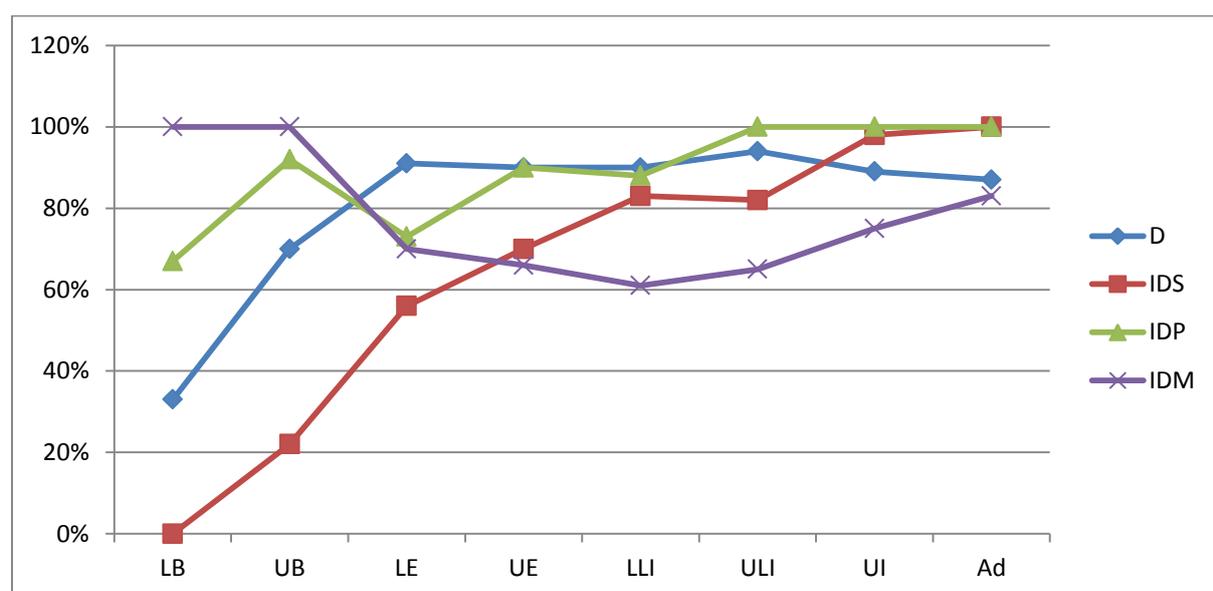

Figure 8.6. WTT: Mean rates of accuracy in the different contexts.

Figure 8.6 shows that there was a pattern of increase in the mean rates of accuracy in the definite context and indefinite singular context in the first three proficiency groups. On the other hand, there was a decrease in the mean rates of accuracy in the indefinite plural and mass contexts in the LE group. This provides evidence that that the participants recognise the definite NPs as well as indefinite singular NPs earlier than the indefinite plural and mass NPs. Thus, this might indicate that the SA-English acquisition of the articles *the* and *a* is less difficult than the acquisition of the article *null*. Further, this figure reveals clear low mean rates of accuracy in the indefinite mass context compared to those in the other contexts in the latter four proficiency groups. This suggests the difficulty the participants found in recognising the indefinite mass NPs due to the absence of a mass-marking morpheme in mass nouns in English.

Now, I address the effect of mapping in the L2 acquisition in the present study.

The following figure provides the mean usage rates of the article *the* with the definite NPs across the proficiency groups.
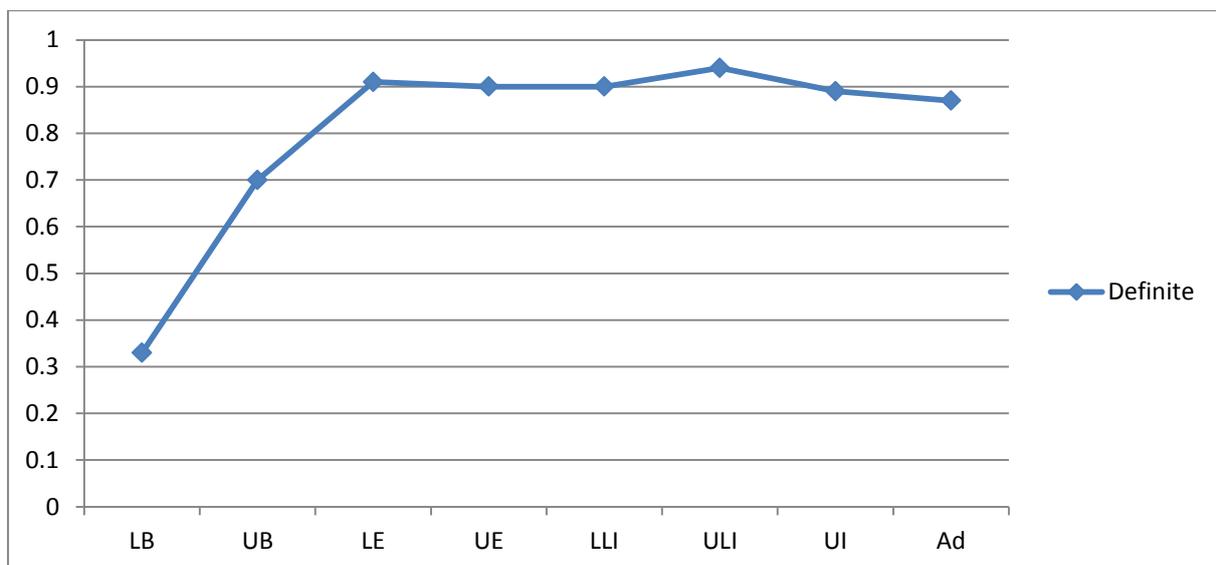

Figure 8.7. WTT: Mean usage rates of the article *the* with definite NPs.

Figure 8.7 shows that there was a clear increase in the mean usage rates of the article *the* with the definite NPs in the UB and higher proficiency groups. This might suggest the effect of mapping the article *al* (the) in L1 to the article *the* in the L2 input in the SA-English acquisition of the article *the*.

In the indefinite contexts, it appears that mapping the article *null* in the L1 to the two articles *a* and *null* in the L2 input as predicted in the current study does not take place. The remaining part of this section illustrates this observation.

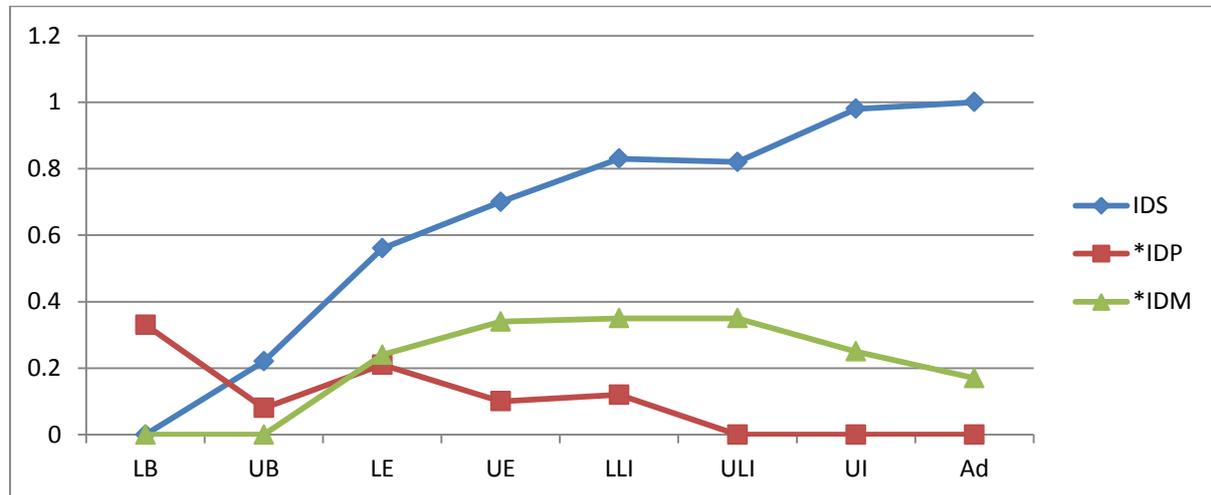Figure 8.8 presents the mean usage rates of the article *a* with all indefinite NPs.

Figure 8.8. WTT: Mean usage rates of article *a* with the different indefinite NPs.

Note. *ungrammatical use of article *a*

Figure 8.8 shows that there was a clear significant increase in the mean usage rates of the article *a* with only the indefinite singular NPs across the different groups. Further, there was a clear decrease in the mean usage rate of the same article in the indefinite plural NPs. Also, there were noticeable incidences of using this article with the indefinite mass NPs in the LE, UE, LLI, ULI, UI and Ad groups. Therefore, it appears that mapping the article *null* in the L1 to the article *a* in the L2 input, as predicted in this study, did not take place given that the mean usage rates of this article increases only with the indefinite singular NPs. Nevertheless, as stated previously, it seems that, in the acquisition of the indefinite article *a*, the SA-speaking L2 learners of English map the article *null* in SA to the article *a* in the L2 input and at the same time reassemble the feature set of the article *a* in their interlanguage to the form it is required in English. Due to this, the high mean usage rates of the article *a* have been observed only with indefinite singular NPs rather than all indefinite NPs.

The following figure presents the mean usage rates of the article *null* with all indefinite NPs.
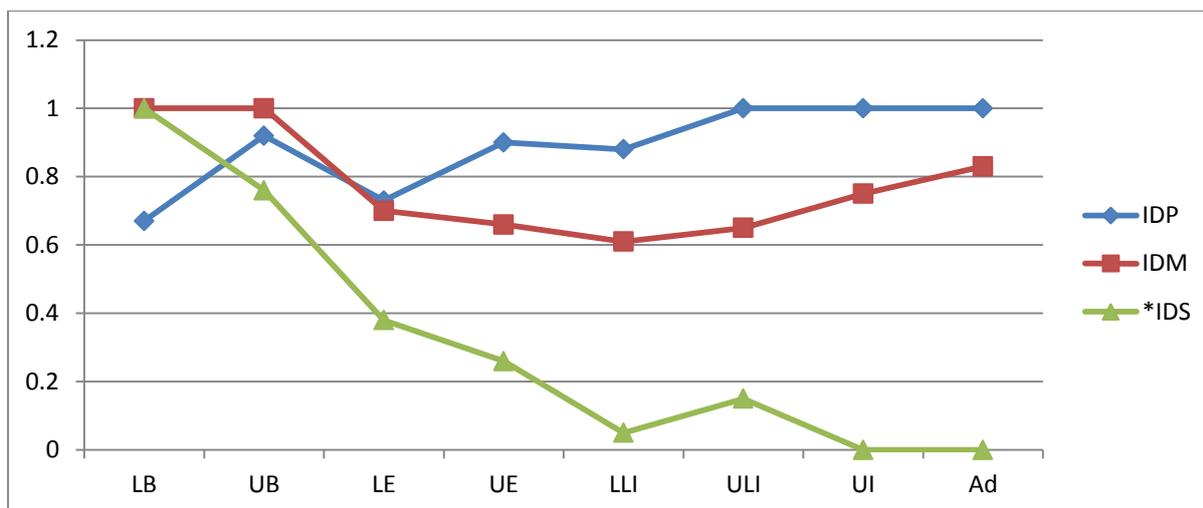
Figure 8.9. WTT: Mean usage rates of the article *null* in the different indefinite contexts.

Note. *ungrammatical use of article *null*

Figure 8.9 reveals that there was a clear increase in the mean usage rates of the article *null* with the indefinite plural NPs in the UE and higher proficiency groups. Further, there was high use of the same article with the indefinite mass NPs across the proficiency groups. With the indefinite singular NPs, there was a decrease in the mean usage rates of the article **null* across the different proficiency groups. Therefore, this suggests that mapping the article *null* in the L1 to the article *null* in the L2 input, as predicted in this study, did not take place. However, these results indicate that the SA-speaking L2 learners of English have managed to map the article *null* in SA to the article *null* in L2 input and simultaneously reassemble the feature sets of the article *null* in their interlanguage to the way they are required in English. For this reason, high mean usage rates of the article *null* have been observed only with the indefinite plural and mass NP, not with all indefinite NPs.

Table 8.3 puts together the main observations of the L2 participants' performance in the different contexts across the different proficiency groups in the WTT, which were provided in Section 8.2.2.

Table 8.3

WTT: L2 participants' Performance across the Proficiency Groups

Level	Context	Main observations
LB	D	・ Omission
	IDS	・ Omission
	IDP	・ Omission
	IDM	・ Omission
UB	D	・ Significant increase (target article *the*)
	IDS	・ Omission
	IDP	・ Omission
	IDM	・ Omission
LE	D	・ Significant increase (target article *the*)
	IDS	・ Significant increase (target article *a*)
	IDP	・ Significant decrease (target article *null*)
	IDM	・ Clear decrease (target article *null*), not statistically significant ・ Clear overuse of *a, not statistically significant
UE	D	・ None
	IDS	・ None
	IDP	・ Significant increase (target article *null*)
	IDM	・ Steady use (target article *null*) ・ Clear overuse of *a, not statistically significant
LLI	D	・ None
	IDS	・ None
	IDP	・ None
	IDM	・ Steady use (target article *null*) ・ Clear overuse of *a, not statistically significant
ULI	D	・ None
	IDS	・ None
	IDP	・ None
	IDM	・ Steady use (target article *null*) ・ Clear overuse of *a, not statistically significant
UI	D	・ None
	IDS	・ None
	IDP	・ None
	IDM	・ Clear increase (target article *null*), not statistically significant ・ Clear decrease (article *a), not statistically significant
Ad	D	・ None
	IDS	・ None
	IDP	・ None
	IDM	・ Clear increase (target article *null*), not statistically significant ・ Clear decrease (article *a), not statistically significant

In a nutshell, Table 8.3 shows that the participants were not able to recognise the different NPs in the LB group. Further, the participants managed to recognise the definite NPs at an earlier stage compared to the indefinite NPs. This provides evidence for the role of similarity between the target item in the L2 and its equivalent in the L1 on the morphological and semantic levels in L2 acquisition. Also, this table shows that the recognition of the indefinite singular NPs took place before that of the indefinite plural and mass NPs. This provides evidence for the role of detectability in L2 acquisition, as the participants were able to recognise definite NPs and indefinite singular NPs before indefinite plural and mass NPs. Further, this table shows that participants found difficulty in recognising the indefinite mass NPs which was indicated by the use of the article *a with these NPs. This suggests that the role of detectability in L2 acquisition is not restricted to the target item. Rather it appears that the role of detectability must be taken into account also with the supporting evidence that is related to the target item.

To sum up, Section 8.2.2 has shown that the results of the WTT were largely consistent with the results of the FCET. The L2 participants found the acquisition of the definite article *the* less difficult than the acquisition of the indefinite articles. Further, the acquisition of the indefinite article *a* was less difficult than the acquisition of the indefinite article *null*. Additionally, the acquisition of the article *null* used with indefinite plural NPs was less difficult than the acquisition of the article *null* used with indefinite mass NPs. This section has also shown that the predictions of the current study for the feature reassembly-based SA-English acquisition of the definite and indefinite articles were partially borne out. That is, these predictions were supported in the L2 acquisition of the article *the* while they were not in the acquisition of the articles *a* and *null*. For this reason, a feature reassembly-based explanation for the SA-English acquisition of indefinite articles is provided in Chapter 9.

8.3. Discussion

This section discusses the observations of the results of the WTT in the light of the hypotheses in the present study. It will be shown that the SA-speaking L2 learners of English are not similar to the Greek L2 learners of English (Hawkins et al., 2006) as well as the Spanish L2 learners of English (Ionin et al., 2008) in terms of the acquisition of the definite and indefinite articles. Moreover, this section will reveal that the hypothesis based on the

FRH can provide a better explanatory account for the SA-English acquisition of the definite and indefinite articles. Further, this section will show that the hypothesis based on the extended version of Slabakova's (2009) proposal cannot fully explain the SA-English acquisition of the definite and indefinite articles. Also, it will be shown that the predicted feature reassembly-based mechanism for L2 acquisition cannot fully account for the findings in the present study. Therefore, another feature reassembly-based explanation is provided in Chapter 9 that will hopefully better account for the results found in the present study.

The section will first discuss the hypothesis based on the FH (Ionin et al., 2008).

Recall first that the FH (Ionin et al., 2008) predicts that the SA-speaking L2 learners' task in the acquisition of definiteness in English will be a process of transferring the definiteness setting of the ACP in SA to the L2 interlanguage given that SA and English select the definiteness setting of the ACP. The results showed that the participants' mean rates of accuracy in the definite context were significantly higher than the mean rates of accuracy in the indefinite context in many of the proficiency groups. Table 8.2 in Section 8.2.1 compared the results in the definite context with the results in the indefinite context. This table is repeated below.

Table 8.4

WTT: (Definite vs Indefinite) Paired Samples t-tests for Mean Accuracy Rates in all Proficiency Groups (repeated from Table 8.2)

| Proficiency group | Mean | | Paired samples t-test |
	Definite	Indefinite	
LB	.33	.33	.333
UB	.70	.50	.182
LE	.91	.63	.001*
UE	.90	.76	.001*
LLI	.90	.75	.002*
ULI	.94	.78	.001*
UI	.89	.89	.518
Ad	.87	.93	.083

Table 8.4 shows that the mean rates of accuracy in the definite context were significantly higher than the mean rates of accuracy in the indefinite context in four proficiency groups: LE, UE, LLI, and ULI and never vice versa.

Further, post hoc (TUKEY, HSD) tests showed that the participants' significant change towards target-like performance was found earlier in the definite context (UB) compared to that in the indefinite context (UE).

These observations indicate that the SA-English acquisition of the article *the* is less difficult than the acquisition of the articles *a* and *null*. Therefore, it is argued that the results of the WTT cannot be explained by the parameter resetting viewpoint to L2 acquisition. That is to say, it appears that viewing the SA-English acquisition of definiteness as a process of transferring the definiteness setting of the ACP from L1 to L2 interlanguage (Ionin et al., 2008) is insufficient to account for the different performance found in the definite and indefinite contexts in the present study.

On the other hand, according to the hypothesis which is based on the FRH (Lardiere, 2008, 2009a, 2009b), the SA-speaking L2 learners were predicted to find the acquisition of the definite article *the* less difficult than the acquisition of the indefinite articles *a* and *null*. It appears that the results in the WTT support this hypothesis. To reiterate, the observations showed that the participants were significantly more accurate in the definite context compared to the indefinite context. Additionally, the significant increase towards target-like performance was firstly observed in the definite context (UB) while it was observed at a later stage in the indefinite context (UE). Thus, it appears that the FRH, up to this point, provides a better explanatory account for the SA-English acquisition of the definite and indefinite articles.

Let us now turn to the third hypothesis, which is based on the extended version of Slabakova's (2009) proposal.

Recall that this hypothesis predicts that the SA-English acquisition of the definite article *the* will be the least difficult compared to the other indefinite articles. Also, the acquisition of the indefinite article *a* will be less difficult than the acquisition of the indefinite article *null*. Further, the acquisition of the article *null* used with indefinite plural NPs will be as difficult as the acquisition of the article *null* used with indefinite mass NPs.

The observations of the results in the WTT partially support this hypothesis. That is, it was shown that the SA-English acquisition of the definite article *the* was the least difficult compared to the other indefinite articles. Further, the acquisition of the indefinite article *a* was less difficult than the acquisition of the indefinite article *null*. However, contrary to the hypothesis based on the extended version of Slabakova's (2009) proposal, the acquisition of the article *null* used with indefinite mass NPs was not as difficult as the acquisition of the article *null* used with indefinite plural NPs; rather, it was more difficult.

Let us now move to the fourth hypothesis, which addresses the role of the absence of a mass-marking morpheme in mass nouns in English in the SA-English acquisition of the article *null*, which is used with indefinite mass NPs. It appears that this hypothesis was supported. It was shown that the L2 participants had some difficulties in recognising indefinite mass NPs as they sometimes mistakenly considered these NPs as indefinite singular NPs. This led the L2 participants to persistently overuse the article **a* with indefinite mass NPs in the LE group and higher proficiency groups. Note that overusing the article **a* was not observed with indefinite plural NPs. Also, recall that it has been shown that the SA-English acquisition of the article *null* used with indefinite plural NPs was less difficult than the acquisition of the article *null* used with indefinite mass NPs. Therefore, it appears that the absence of a mass-marking morpheme in mass nouns and presence of a plural-marking morpheme in plural nouns in English makes plural nouns more detectable than mass nouns. Consequently, the SA-English acquisition of the article *null* used with indefinite plural NPs was less difficult than the acquisition of the article *null* used with indefinite mass NPs, and this due to the role of detectability. Thus, I argue that the role of detectability in L2 acquisition must not be restricted to the target item, but it must be extended to the supporting evidence related to the target item. The absence of a mass-marking morpheme in mass nouns in English (i.e., lack of supporting evidence related to the target item), seems to play a role in the L2 acquisition of the target item (i.e., article *null* used with indefinite mass NPs).

Let us now turn to the predicted feature reassembly-based mechanism of the SA-English acquisition of the definite and indefinite articles.

To reiterate, from the FRH (Lardiere, 2008, 2009a, 2009b) viewpoint, it was predicted in this study that the L2 participant's task in the acquisition of the definite article involves only a task of mapping, while it involves two tasks: mapping and feature reassembly in the acquisition of the indefinite articles.

In terms of the SA-English acquisition of the definite article *the*, the results in the WTT provided evidence that the participants managed from the early stage (UB) to map the article *al* (the) in the L1 to the article *the* in the L2 input. As a result, significant high mean usage rates of the target article *the* was found with the definite NPs. Therefore, the predicted feature reassembly-based mechanism of the SA-English acquisition of the definite article *the* was borne out.

However, it appears that the predicted feature reassembly-based mechanism of the SA-English acquisition of the indefinite articles *a* and *null* was not supported. Based on this mechanism, the L2 participants were predicted first to map the article *null* in the L1 to the article *a* in the L2 input. This should lead to significant high mean usage rates of this article with all indefinite NPs. Then, the participants were predicted to map the article *null* in L1 to the article *null* in the L2 input. This should lead to significant high mean usage rates of this article with all indefinite NPs. Accordingly, the two articles; *a* and *null* should be used interchangeably (i.e., randomly), with all different indefinite NPs. Note though that it was predicted to observe the mapping of the article *null* in the L1 to the article *a* in the L2 input before the mapping of the article *null* in the L1 input to article *null* in the L2 due to the role of detectability. After the mapping task, the second task is the feature reassembly. In this task, the L2 participants were predicted to reassemble the feature set of the two articles in the L2 interlanguage to the form it is required in L2.

The findings in the WTT did not support this mechanism. In terms of the L2 acquisition of the article *a*, it appears that the SA-Speaking L2 learners managed to map the article *null* in the L1 to the article *a* in the L2 input and at the same time reassemble the feature set of the article *a* in their interlanguage to the form it is required in English. For this reason, the high mean usage rates of this article were only observed with indefinite singular NPs. In terms of the acquisition of the article *null*, the results also suggest that the SA-speaking L2 learners were able to map the article *null* in SA to the article *null* in L2 and simultaneously reassemble the feature sets of the article *null* in their interlanguage to the way they are required in English. Due to this, the high mean usage rates of this article were only observed with indefinite plural and mass NPs.

8.4. Summary of Chapter 8

This chapter has shown clearer evidence of the mapping in the SA-English acquisition of the definite article *the*. Further, it has provided evidence that mapping feature reassembly take place simultaneously in the acquisition of the indefinite articles *a* and *null*. Additionally, it appears that the results of the WTT were largely consistent with the results of the FCET. That is, the results in the two tests showed that the parameter resetting approach to L2 acquisition was not sufficient to describe the L2 acquisition of definiteness in English by SA L1 speakers (Ionin et al., 2008). On the other hand, the results in the two tests supported the FRH (Lardiere, 2008, 2009a, 2009b) in the sense that the participants found the SA-English acquisition of the definite article less difficult than the acquisition of the indefinite articles. As found in the FCET, the results of the WTT partially supported the extended version of Slabakova's (2009) cline of difficulty in L2 acquisition. Specifically, the L2 participants found the acquisition of the definite article *the* the least difficult compared to the other indefinite articles. Additionally, the acquisition of the indefinite article *a* was less difficult than the acquisition of the indefinite article *null*. However, the acquisition of the article *null* used with indefinite mass NPs was not as difficult as the acquisition of the article *null* used with indefinite plural NPs. Rather, it was more difficult and this was due the absence of a mass-marking morpheme in mass nouns in English, which plays a role in the L2 acquisition of the article *null* used with indefinite mass NPs. For this reason, I argue that role of detectability in L2 acquisition should not be limited to the target item, and it should be extended to the supporting evidence that is related to the target item.

Chapter 9

Main Findings and Possible Explanations

## 9.1.	Introduction

The main goal of this chapter is to propose a feature reassembly-based explanation for L2 acquisition based on the findings in the SA-English acquisition of the definite and indefinite articles. In order to so, Section 9.2 provides the cross-test findings. Section 9.3 proposes the feature reassembly-based explanation for L2 acquisition and Section 9.4 summarises this chapter.

## 9.2.	Cross-test Findings

The findings in the two tests are mostly consistent. Consider the cross-test findings below.

- The SA-speaking L2 learners were not able to recognise the definite and indefinite NPs at the initial stages of acquisition.

- The SA-English acquisition of the definite article was less difficult than that of the indefinite articles. This is evidence for the FRH (Lardiere, 2008, 2009a, 2009b). However, this result cannot be explained in the light of the parameter resetting approach to L2 acquisition (i.e., transferring the definiteness setting of the ACP from SA to the L2 interlanguage [Ionin et al., 2008] in itself cannot describe the SA-English acquisition of definiteness.

- Accurate recognition of the different NPs was not observed at the same time:

  - Accurate recognition of the definite NPs (feature [+definite]) was observed before that of the indefinite NPs (feature [-definite]).

  - Accurate recognition of the indefinite singular NPs (feature [+count [-plural]]) was observed before that of the indefinite plural and mass NPs (features [+count [+plural]] and [-count]).

- Accurate recognition of the indefinite plural NPs (feature [+count [+plural]]) was observed before that of the indefinite mass NPs (feature [-count]).

▪ The extended version of Slabakova's (2009) cline of difficulty in L2 acquisition was partially supported. It predicted the following level of difficulty across the different articles:

- Article *the* < Article *a* < Article *null*

However, cross-test findings provided evidence for the following level of difficulty:

- Article *the* < Article *a* < Article *null* used with indefinite plural NPs < Article *null* used with indefinite mass NPs

▪ Absence of a mass-marking morpheme in mass nouns in English plays a role in the SA-English acquisition of the article *null* used with indefinite mass NPs.

▪ Mapping of the article *al* (the) in the L1 to the article *the* in the L2 input was observed in both tests; it was clearer and earlier in the WTT (UB) compared to the FCET (LE).

▪ Mapping of the article *null* in the L1 to the article *a* in the L2 input as well as the feature reassembly of the feature set of the article *a* in L2 learners' interlanguage took place at the same time.

▪ Mapping of the article *null* in the L1 to the article *null* in the L2 input as well as the feature reassembly of the feature sets of the *article* null in L2 learners' interlanguage took place at the same time.

▪ Mapping and feature reassembly in the SA-English acquisition of the article *a* took place before those in the acquisition of the article *null*.

▪ Interpreting the context was easier in the WTT compared to the FCET due to the language used in the former test; the L2 participants' L1. This led the participants to perform more accurately in the WTT compared to the FCET.

▪ The SA-speaking L2 learners of English did not transfer their L1 grammar (i.e., the use of the article *null* with indefinite NPs) in producing indefinite NPs in English. Thus, this is counterevidence for the effect of L1-transfer (Hulk, 1991; Robertson and Sorace, 1999; Schwartz and Sprouse, 1994, 1996 and others).

It has been shown that the parameter resetting approach to L2 which is represented in the present study through the notion of transferring the definiteness setting of the ACP from SA to the L2 interlanguage in the acquisition of the definite and indefinite articles in English (Ionin et al., 2008) was not able to account for the result. This was suggested by the different performance found in the results of the L2 acquisition of the articles *the* (definite NPs), *a* (indefinite singular NPs), *null* (indefinite plural NPs) and *null* (indefinite mass NPs). On the other hand, the FRH (Lardiere, 2008, 2009a, 2009b) appears to be a promising explanatory account for the SA-speaking L2 learners' performance in the present study. Further, mapping and feature reassembly, as predicted in this study, need to be revisited.

It appears that the findings in the current study provide evidence for the role of detectability in L2 acquisition. Building on Lardiere (2009a), I have argued that the level of detectability, available evidence in the L2 input of a property in the L2, plays a role in the level of success in the L2 acquisition of this property (i.e., the more this property is detectable, the easier it is to be acquired). Also, it appears that the predicted process of the mapping in the SA-English acquisition of the article *the* was supported whereas the process of mapping and feature reassembly in the acquisition of the indefinite article *a* and *null* differs from who it was predicted in the present study. That is, It was argued that the SA-speaking L2 learners of English in the acquisition of the indefinite articles will initially map the article *null* in SA to the articles *a* and *null* in L2 input. After that, these learners were predicted to reassemble the feature sets of these indefinite articles from the way the feature set of the article *null* is established in SA to the way the feature sets of the articles *a* and *null* are required in English. Due to the initial mapping phase, it was predicted that these two indefinite articles will be used interchangeably (i.e., randomly) given that their feature sets at this stage includes only the feature [-definite] which is similar to feature set of the article *null* in SA. Then, these learners were predicted to reassemble the feature sets of these indefinite articles in their interlanguage to way they are required in English. In contrast, the results have shown that mapping and feature reassembly in the SA-English of indefinite article take place simultaneously while taking into account that these two phases, mapping and feature reassembly, emerge at an earlier stage in the acquisition of the article *a* compared to the acquisition of the article *null* due to the suggested role of detectability of the target item.

9.3. Possible Feature Reassembly-Based Explanation

The cross-test findings showed that the FRH (Lardiere, 2008, 2009a, 2009b) could serve as a promising account for L2 acquisition. However, the hypotheses based on the FRH, as proposed in the present study, needs some refinement. Therefore, the aim of this section is to offer a feature reassembly-based explanation for L2 acquisition based on the findings in the current study.

This study showed that only part of the hypotheses based on the FRH (Lardiere, 2008, 2009a, 2009b) and the extended version of Slabakova's (2009) proposal, which addresses the SA-English acquisition of the definite article *the*, was supported. On the other hand, the part of the hypotheses based on the FRH and the extended version of Slabakova's proposal which addresses the SA-English of the indefinite articles was partially bore out.

What follows are the suggestions of how the FRH (Lardiere, 2008, 2009a, 2009b) can explain L2 acquisition based on the findings in the SA-English L2 acquisition of the definite and indefinite articles.

(1) L2 acquisition which involves just mapping is less difficult than that which involves mapping and feature reassembly.

Cross-test findings showed that the SA-English acquisition of the article *the* is less difficult than the acquisition of the articles *a* and *null*. Recall that it has been argued that the results suggest that the SA-English acquisition of the article *the* involves only one phase which is the mapping of the article *al* (the) in SA to the article *the* in L2 input. On the other hand, the results indicate that the SA-English acquisition of the articles *a* and *null* involves two phases which are the mapping of the article *null* in SA to the articles *a* and *null* and reassembling the feature sets of these two indefinite articles from the way it is selected in SA to the way they are required in English. Consequently, these findings are consistent with the FRH (Lardiere, 2008, 2009a, 2009b) and Slabakova's (2009) cline of difficulty in L2 acquisition.

(2) Mapping and feature reassembly take place at the same time.

The findings have shown that mapping (i.e., Full Transfer) and feature reassembly (i.e., Full Access) occur simultaneously rather than in separate stages. That is to say, according to the predictions in the present study for the feature reassembly-based SA-English acquisition of the indefinite article *a* and *null*, it was predicted that mapping should take place initially then

it is followed by the feature reassembly. This mapping prediction in the L2 acquisition of the two indefinite articles at the initial stage was supposed to lead to the interchangeable (i.e., random) use of the articles *a* and *null* with all indefinite NPs given that the feature sets of these two articles include only the feature [-definite]. Then, with the assumption of the L2 learners' ability to access UG, the SA-speaking L2 learners were predicted to reassemble the feature sets of the two articles *a* and *null* in their interlanguage to the way they are required in English. In contrast, the findings have shown that the SA-speaking L2 learners of English have managed to map the article *null* in SA to the articles *a* and *null* in L2 input and the same time of this mapping process, they have been able to reassemble the feature sets of the two indefinite articles in their interlanguage to the form they are required in English. Due to this, no interchangeable use of the two articles, *a* and *null*, with all indefinite NPs were observed. This suggestion is indicated by the SA participants' clear pattern of increase of the mean usage rates of each article with the appropriate indefinite NPs. In other words, the clear increase of the mean usage rates of the indefinite article *a* was observed only with the indefinite singular NPs, while the clear increase of the mean usage rates of the indefinite article *null* was observed only with the indefinite plural and mass NPs.

Let us go back to the suggestions of how the FRH (Lardiere, 2008, 2099a, 2009b) can provide a better explanatory account for L2 acquisition. Now, I propose an explanation behind the L2 participants' superior performance in the acquisition of the indefinite article *a* compared to the acquisition of the indefinite article *null*?

(3) Mapping and feature reassembly in the L2 acquisition of overt target items are easier than mapping and feature reassembly in the L2 acquisition of null target items due to the role of detectability.

The findings in the current study suggest that the two phases, mapping and feature reassembly, in the SA-English acquisition of the indefinite article *a* emerged at an earlier stage in comparison with the mapping and feature reassembly in the L2 acquisition of the indefinite article *null*. As a result, this led the SA-English acquisition of the article *a* (overt item) to be less difficult than the acquisition of the article *null* (null item). Due to this, it is argued that the detectability of the target item plays a role in determining the level of difficulty in Slabakova's (2009) proposal. That is, from the feature reassembly-based viewpoint, it appears that the more the target item is detectable, the easier to be acquired.

The following suggestion in (4) explains the L2 participants' superior performance in the indefinite plural context compared to the indefinite mass context.

(4) Detectability of supporting evidence related to the target item in L2 input plays a role in L2 acquisition.

It appears that rich evidence in L2 input facilitates L2 acquisition in a sense that it makes the target property more detectable. That is, acquiring features that are realised morphologically is easier than those which are not. For this reason, I argue that the detectability of supporting evidence related to the target item plays a role in determining the level of difficulty in Slabakova's (2009) proposal in L2 acquisition. The present study showed that the L2 participants found the acquisition of the feature [+count [+plural]] less difficult than the acquisition of the feature [-count], given that the former is realised morphologically, while the latter is not. It was shown that the L2 participants did not encounter the same difficulties in the acquisition of the article *null* used with indefinite plural NPs compared to the acquisition of the article *null* used with indefinite mass NPs, given that they had the advantage to recognise plural nouns through the presence of a plural-marking morpheme. On the other hand, the L2 participants struggled in the acquisition of the article *null* used with indefinite mass NPs due to the absence of a mass-marking morpheme in mass nouns in English. Cross-test findings revealed that there were some incidences of overuse of the article *a with indefinite mass NPs, due to their similarity on the morphological level to indefinite singular NPs. Note that this pattern was not observed with indefinite plural NPs. The feature [-count] is language specific (Kulkarni et al., 2013). That is to say, a noun is mass in one language while it is count in another as, for example, the noun *evidence* which is mass in English while it is count in Arabic (*ethbat* [*an evidence*], *ethbat-at* [*evidence-s*]). Therefore, the difficulty the L2 participants found in the acquisition of the feature [-count] provides evidence for the role of detectability in L2 acquisition. In other words, given that in English, plural nouns are distinguished morphologically while mass nouns are not makes the plural nouns more detectable than the mass nouns. Consequently, the L2 participants found the acquisition of the article *null* used with indefinite plural NPs less difficult than the acquisition of the article *null* used with indefinite mass NPs. As a result, this shows that the role of detectability in L2 acquisition is not only restricted to the target items (Slabakova, 2009), rather it is also extended to the supporting evidence that is related to the target items.

Figure 9.1 proposes a cline of difficulty in the SA-English acquisition of the definite and indefinite articles. This figure also includes the proposed factors responsible for the L2 acquisition in the present study.

| | Less Difficult | | | More Difficult |

Factor	Article *the* (Definite NPs)	Article *a* (Indefinite singular NPs)	Article *null* (Indefinite plural NPs)	Article *null* (Indefinite mass NPs)
Mapping	√	√	√	√
Feature Reassembly	x	√	√	√
Detectability of the target item	Article *the* is more detectable than article *null*	Article *a* is more detectable than article *null*	Article *null* is less detectable than article *the* and *a*	
Detectability of supporting evidence	N/A	√ Detectability of morphological contrast between singular and plural nouns	√ Detectability of morphological contrast between plural and singular nouns	x Absence of supporting evidence related to the target item (mass-marking morpheme)

Figure 9.1. Cline of difficulty in SA-English acquisition of definite and indefinite articles and the factors responsible for the learners' different performance.

Figure 9.1 presents the cline of difficulty in the SA-English acquisition of the definite and indefinite articles. It also provides the factors responsible for the different performances in the SA-English acquisition of the definite and indefinite articles. This figure shows that the SA-English acquisition of the definite article *the* is easier than the acquisition of indefinite articles because it involves just mapping, contrary to the acquisition of the indefinite articles which involves mapping and feature reassembly. Further, this figure shows that the level of difficulty of the mapping and feature reassembly in the L2 acquisition of indefinite articles is determined by two factors, the detectability of the target item as well as of the detectability of the supporting evidence related to the target item. Due to this, mapping and feature reassembly in the SA-English acquisition of the indefinite article *a* (over target item)

emerged at an earlier stage compared to the mapping and feature reassembly in the acquisition of the indefinite article *null* (null target item) given that overt target items are more detectable than null target items. Further, the L2 acquisition of the article *null* used with indefinite plural NPs was less difficult than the acquisition of the article *null* used with indefinite mass NPs due to the role of detectability of the supporting evidence related to the target item (i.e., plural NPs are morphologically marked for the feature [+count [+plural]] while mass NPs are not marked for the feature [-count]).

To sum up, I argue that Slabakova's (2009) cline of difficulty in the L2 acquisition of grammatical features needs some further extension. Although the findings in this study have provided evidence for Slabakova's proposal in the sense that the L2 acquisition of a feature that involves just one task, mapping Feature$_{morpheme}$ in L1 to Feature$_{morpheme}$ in L2 input is easier than the L2 acquisition of a feature that involves two tasks, mapping Feature$_{morpheme}$ in L1 to Feature$_{morpheme}$ in L2 input and feature reassembly, it appears that this study also provides evidence for crucial role of the nature of the phonological exponent of the morpheme of the feature in question in determining the level of difficulty in the two phases, mapping and feature reassembly. That is, it seems that the role of detectability of the phonological exponent of the morpheme of the feature, being overt or null, determines the time of the emerging of mapping and feature reassembly. This has been suggested by the earlier emergence of mapping and feature reassembly in the L2 acquisition of the article *a* (overt target item) compared to the mapping and feature reassembly in the L2 acquisition of article *null* (null target item). Further, this study has provided evidence for the importance of the detectability of the supporting evidence that is related to the target item. It appears that the more the features of the supporting evidence that are related to the target item are detectable, the easier the target item is to be acquired. This was suggested in the current study through the less difficulty the SA L2 participants found the acquisition of article *null* used with indefinite plural NPs compared to the acquisition of article *null* used with indefinite mass NPs. Therefore, the role of detectability in L2 acquisition must not be restricted to the target item; rather, it needs to be extended to the supporting evidence related to the target item.

9.4.   Summary of Chapter 9

This chapter has provided main findings of the cross-test and the feature reassembly-based explanation for L2 acquisition based on the findings in the SA-English acquisition of the definite and indefinite articles. It has been argued that L2 acquisition becomes less difficult once it involves just one task (i.e., mapping) rather than two tasks (i.e., mapping and feature reassembly) and this is compatible with Slabakova's (2009) proposal which is based on the FRH (Lardiere, 2008, 2009a, 2009b). For this reason, the results have shown that the SA-English acquisition of the article *the* (feature [+definite]) was less difficult than the acquisition of articles *a* (features [-definite] and [+count [-plural]]) and *null* (features [-definite] and [±count [+plural]]). Further, it has been argued that the detectability of the target item (i.e., the phonological realisation of the morpheme of the feature at issue) plays a role in determining the level of difficulty in Slabakova's proposal for the L2 acquisition of grammatical features. That is, it appears that mapping and feature reassembly in L2 acquisition become less difficult when the target item is overt compared to null given that overt target items are more detectable than null target items. This has been suggested by the results which have shown that the SA-English acquisition of the article *a* (features [-definite] and [+count [-plural]]) was less difficult than the acquisition of the article *null* (features [-definite] and [±count [+plural]]). Moreover, it has been shown that the detectability of features involved with supporting evidence that are related to the target item plays a role in determining the level of success in L2 acquisition. Due to this, the SA-English acquisition of the article *null* used with indefinite plural NPs was less difficult than the acquisition of the article *null* used with indefinite mass NPs, given that feature [+count [+plural]], is morphologically marked; hence more detectable than the feature [-count] which is morphologically unmarked.

Chapter 10

Conclusions

10.1. Conclusion

Lardiere (2005, 2007, 2008, 2009a, 2009b) argues that the parameter (re)setting approach fails to provide an adequate explanation for L2 acquisition. According to Lardiere, viewing the learner's task in L2 acquisition as setting a value in a certain parameter or resetting it from the way it is established in the L1 to the way it is required in the L2 is too simplistic. For this reason, Lardiere proposes the FRH (2008, 2009a, 2009b) arguing that the L2 acquisition task is extremely complicated as it involves reassembling the property to be acquired from the way it is established in the L1 to the way it is required in the L2. This task involves the L2 learner's consideration for any conditions and restrictions on the realisation of this property in the L2. Based on the FRH, Slabakova (2009) proposes the cline of difficulty in L2 acquisition of grammatical features, which predicts different situations of L2 acquisition.

The first aim of this study was to investigate two opposing approaches in L2 acquisition; the parameter (re)setting and feature reassembly. In this study, the parameter (re)setting approach was represented by the FH (Ionin et al., 2004) which proposes the ACP while the feature reassembly approach was represented by the FRH (Lardiere, 2008, 2009a, 2009b) and the extended version of Slabakova's (2009) cline of difficulty in L2 acquisition of grammatical features. The second aim of this study was to investigate how L2 acquisition works from the perspective of the feature reassembly approach.

The main findings have shown that the parameter resetting approach to L2 acquisition which is represented in the current study through the SA-speaking L2 learners' process of transferring the definiteness setting of the ACP (Ionin et al., 2004, 2008) from SA to the L2 interlanguage could not account for the different performance found in the acquisition of the definite and indefinite articles that are used with the different types of NPs. Further, it appears that the FRH (Lardiere, 2008, 2009a, 2009b) serves as a promising explanatory account for L2 acquisition.

This study has also provided some significant observations which enlighten us of the mechanism of how the feature reassembly approach works in L2 acquisition. These observations are as follows: First, it has been shown that the L2 acquisition which involves just mapping becomes less difficult than the L2 acquisition which involves mapping and feature reassembly. This has been suggested in the present study by the less difficulty the SA-speaking L2 learners found in the acquisition of the article *the*, which involves just mapping, compared to the articles *a* and *null*, which involves mapping and feature reassembly. Further, this study has shown that the level of detectability of the target item plays a role in determining the level of difficulty of the two tasks, mapping and feature reassembly. That is, mapping and feature reassembly in the L2 acquisition of overt target items (i.e., high level of detectability) are less difficult than mapping and feature reassembly in the L2 acquisition of null target items (i.e., low level of detectability). In other words, the more a property is detectable, the easier its features to be acquired and vice versa. This has been suggested in the present study by the earlier emergence of the mapping and feature reassembly in the L2 acquisition of article *a* compared to those in the L2 acquisition of the article *null*. Moreover, this study has revealed that mapping (i.e., Full Transfer) and feature reassembly (i.e., Full Access) take place at the same time. Recall that this study has predicted the L2 participants to use the articles *a* and *null* interchangeably (i.e., randomly) due to the mapping of the article *null* in SA to the articles *a* and *null* in L2 input given that the feature sets of these two articles include only the feature [-definite]. In contrast, the results have shown that these L2 learners used each article with the appropriate type of NP which suggests that mapping and feature reassembly take place simultaneously. Finally, this study has shown that the role of detectability is not restricted to the target item; rather it involves the supporting evidence related to the target item. That is to say, it appears that once the features of the supporting evidence that are related to the target item are more detectable, they become easily acquired.

This study appears to call for a reinvestigation of the widely perceived influence of L1-transfer in L2 acquisition (Hulk, 1991; Robertson and Sorace, 1999; Schwartz and Sprouse, 1994, 1996 and others). That is, it has been shown that L2 learner's initial grammar in the SA-English acquisition of the indefinite articles was not similar to that in the L1. In other words, these learners did not transfer the grammar of the indefinite article *null* to the L2 interlanguage; hence, they did not tend to use this article with all indefinite NPs.

To conclude, this study did not support the parameter (re)setting approach to L2 acquisition. In contrast, it showed that the feature reassembly approach serves as a promising

explanatory account for L2 acquisition. It was suggested that L2 acquisition is a complex task which involves phases and is determined by different factors.

10.2. Limitations of the Current Research

As found with all research, some limitations are inevitable. In my research, there was a limitation concerning the small sample of some proficiency groups. Recall that the first three proficiency groups in the OQPT were divided into two groups: lower and upper. This led to some proficiency groups including about ten participants. As a result, this might have had an effect on the statistical results of the current research.

Another limitation involves the effect of format of the FCET. Recall that the given choices for most of the items in this test were in the form (---, *a/an*, *the*). Thus, this format seems somehow informative (i.e., it gives an indication of the examined property). Consequently, this might have affected the findings of the FCET.

10.3. Directions for Future Research

As stated in Section 10.1, it appears that there is a need to reinvestigate the widely perceived role of L1-transfer in L2 acquisition (Hulk, 1991; Robertson and Sorace, 1999; Schwartz and Sprouse, 1994, 1996 and others) from the viewpoint of the feature reassembly approach. In order to do so, it appears that there is a need to investigate the L2 acquisition of feature where the realisation of this feature in L1 is through an overt item while the same feature in L2 is realised through a null item. Based on the feature reassembly-based approach to L2 acquisition, the L2 learners in this situation are predicted initially to map the overt item in L1 to the null target item in L2 input (i.e., Full Transfer). Therefore, there will be a chance to examine the role of the L1-transfer of an overt item in L1 in such an L2 acquisition situation. It seems that the SA-English acquisition of genericity suitably represents this situation of acquisition. In English, genericity is either driven by the NP level, sentence level or both. Further, generic NPs in English might be preceded by either the article *the* with definite singular NPs that refer to kinds, while they are preceded by the article *a* with indefinite singular NPs and the article *null* with indefinite plural and mass NPs in generic sentences (for more details, see Carlson, 1977; Dayal, 2004; Ionin et al., 2011; Krifka et al., 1995; Lyons, 1999). Similar to English, in Arabic, genericity is either driven by the NP level, sentence level or both. However, NPs in generic contexts in Arabic must be preceded by the

definite article *al* (the) regardless of the type of NP. Therefore, based on the findings in the present study, mapping in the SA-English acquisition of genericity will be as follows: article *al* (the) in the L1 to articles *the*, *a* and *null* in the L2 input. Thus, examining the SA-English acquisition of genericity is predicted to enable us to measure the role of L1 transfer in L2 acquisition. That is to say, if the role of L1 transfer emerges in this L2 acquisition, use of the article *the* is predicted to be observed with all types of NPs in generic contexts. Thus, there will be accurate use of the article *the* with definite singular NPs that refer to kinds and inaccurate use of the article **the* with definite singular NPs, plural NPs and mass NPs that are interpreted as generic in English by the sentence level (i.e., these NPs must be indefinite) and are preceded by either the article *a* or article *null* and their generic interpretation is driven by the characterising sentence (sentence level).

Other future research involves comparing the middle situation, mapping Feature$_{morpheme}$ in L1 to Feature$_{morpheme}$ in L2 input and feature reassembly, in Slabakova's cline of difficulty with the situation in the left-hand side, mapping Context$_{morpheme}$ in L1 to Feature$_{morpheme}$ in L2 input and feature reassembly, in the same cline. This comparison should allow us to investigate the role of the availability of an equivalent morphological realisation in L1 for the property to be acquired in L2 on the mapping phase. In order to do such an investigation, it is recommended conducting a comparison study in the L2 acquisition of the indefinite article *null* in English (i.e., a null item) by speakers from two different L1s, from example: SA and Korean. These two L1s are chosen due to the nature of the realisation of the features [-definite] and [+count [+plural]]. In SA, indefinite plural NPs are preceded by the article *null* (Fassi Fehri, 1993; Sarko, 2009) while Korean is an article-less language and it expresses definiteness predominantly through context (Lee, 1992; Yang, 1973). By examining this type of L2 acquisition, the role of detectability of overt target items in L2 input will be excluded in the mapping phase. Thus, there will be a chance to examine the role of the realisation of the feature in L1, through morpheme or context, on the mapping phase.

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Appendices

Appendix A: Consent Form

University of Sheffield

School of English,

Department of English Language & Linguistics

FORM OF CONSENT TO PARTICIPATE IN A RESEARCH PROJECT

CONFIDENTIAL

TITLE OF PROJECT:

The L2 Acquisition of Definite and Indefinite Articles in English by L1 Speakers of Saudi Arabic

Outline of this project:

This project examines the L2 acquisition of definite and indefinite articles in English by L1 speakers of Saudi Arabic. The participants in this project are from different levels of proficiency. Further, there is a control group that consists of native speakers of English.

In this project, there are three tasks. The control group will be asked to take part in one test while the L2 participants will be asked to take part in three tests. The tests are as follow:

1. Oxford Quick Placement test. (For L2 participants)
2. Forced-choice elicitation test. (For L2 participants and control group)
3. Written translation test. (For L2 participants)

It would be helpful if you provide the researcher with some background information about yourself after you sign and date this form.

I,... (Participant's full name) agree to participate in the aforementioned project and I certify that the details of this project have been fully explained to me and described in writing.

Signed.. Date............................

I, Adel Alsowiliem certify that the details of this project have been fully described in writing to the participant named above and have been understood by him/her.

Signed.. Date............................

Appendix B: Test Cover Sheet

The information you give will be treated as confidential and will only be used in data analysis.

Your anonymity will be retained in the presentation of results for the study.

1. Your name:
2. Your native language(s):
3. Your date of birth:
4. Age at which you first started learning English:
5. Number of years you have attended English classes:

Appendix C: Written translation test

الاسم:

المطلوب في هذا الاختبار ان تقوم بترجمة ما هو موجود بين القوسين الى اللغة الانجليزية. الفقرة التالية هي عبارة عن مثال لطريق الحل:

مثال:

احمد يسأل تركي: الى اين ذهبت الصيف الماضي؟

تركي يرد: (ذهبت الى امريكا واستمتعت بوقتي هناك.)

I went to America and I enjoyed my time there.

---

1) عبدالله دخل منزل احمد:

احمد يقول لعبدالله: واخيرا يا عبدالله وجدت سيارة واعجبتني واشتريتها. هل رأيتها امام المنزل؟

عبدالله يرد: نعم يا أحمد. (رأيت السيارة في الخارج وتبدو جميلة.)

....

---

2) عبدالله يسأل احمد: الى اين ذهبت الصيف الماضي؟

احمد يرد: زرت لندن الصيف الماضي.

عبدالله يسأل: وكيف وجدتها؟

احمد يرد: (لندن جميلة ولكن الشوارع دائما مزدحمة.)

....

---

3) احمد يسأل عبدالله: ليش تاكل سلطة الآن. الغداء بعد قليل.

عبدالله يرد: (السلطة تبدو لذيذة.)

....

---

4) احمد يسأل عبدالله: ايش اشتريت من المكتبة؟

عبدالله يرد: (اشتريت قلم وكتاب. القلم كان غالي والكتاب كان رخيص.)

....

---

5) عبدالله: سامي اشترى من دبي خاتم وعقد.

احمد يسأل: وماذا فعل بهما؟

عبدالله يرد: (سامي اعطى الخاتم لزوجته واعطى العقد لاخته.)

....

---

6) عبدالله: اشتريت لدبي بسعر رخيص.

احمد يسأل: كيف تمكنت من شرائهم بهذا السعر؟

عبدالله يرد: (التذاكر كانت رخيصة لانني اشتريتها مبكرا.)

....

---

7) الزوج يسأل زوجته: اين الأولاد:

الزوجة ترد: (الاولاد يلعبون في الحديقة.)

....

---

8) عبداالله يسأل احمد: ما اكثر شي اعجبك في المحل؟

احمد يرد: (اعجبتني اللوحات الموجودة في المحل.)

....

---

9) احمد يسأل عبدالله: ما رأيك في البيوت اللي شفناها اليوم؟ هل في شي اعجبك وقررت انك تشتريه؟

عبدالله يرد: (البيوت كانت كبيرة.) واعتقد انها غير مناسبة.

....

---

10) احمد يسأل: ايش سويت اليوم يا عبداالله؟

عبدالله يرد: (ذهبت الى السوق وشفت رجل لابس ملابس مضحكة.)

....

11) احمد يسأل عبدالله: ماذا وجدت في الثلاجة؟

عبدالله يرد: (وجدت تفاحة.)

....

12) احمد: المعلمون وزعوا هدايا.

عبدالله يسأل: ايش هدية سامي؟
احمد يرد: (سامي حصل على قبعة.)

....

13) عبدالله يسأل احمد: ايش اخذت من غرفتي؟

احمد يرد: (اخذت كرسي.)

....

14) احمد يسأل عبدالله: كيف كان الطقس في بريطانيا؟

عبدالله يرد: (الطقس في بريطانيا بارد.)

....

15) احمد يسأل عبدالله: ما الذي اعجبك في المتحف؟

عبدالله يرد: (اعجبني اكواب شاي قديم.)

....

16) احمد: ماذا اشتريت من القرطاسية؟

عبدالله يرد: (اشتريت اقلاما.)

....

17) احمد يسأل عبدالله: ايش انطباعك عن لندن؟

عبدالله يرد: لندن جميلة ولكن هنالك شيء غريب. (الشقق في لندن صغيرة.)

....

18) في معرض لوحات فنية:

عبدالله: شكل هذا اللوحة اعجبتك يا احمد.

احمد يرد: صحيح. (الالوان في هذي اللوحة جميلة.)

....

19) احمد زاره ضيوف ويحتاج ان يسترجع الاكواب اللي اخذها جاره عبدالله

احمد يقول لعبدالله: (لو سمحت عبدالله اعد الي الاكواب لان عندي ضيوف واحتاجها الان.)

....

20) احمد يريد استئجار غرفة وذهب مع عبدالله للبحث عن غرفة في العمائر المجاورة. وفي احد العمائر وبعد مشاهدته لعدد من الغرف قال احمد لعبدالله: (الغرف في هذه العمارة صغيرة.)

....

21) عبدالله يشرب الماء وبعد ذلك يصرخ.

احمد يسأل: ما بك يا عبدالله.

عبدالله يرد: (الماء ساخن.)

....

22) النادل: كيف لي ان اخدمك سيدي؟

الزبون: (اريد ملاعق لو سمحت.)

....

23) احمد عائد من السوبرماركت. عبدالله يسأل: ماذا اشتريت يا احمد؟

احمد يرد: (اشتريت زبدة وحليب. الزبدة غالية جداً.)

....

24) عبدالله يسأل خالد: ماذا كان يريد احمد منك؟

خالد يرد: (احمد طلب مني الفلوس اللي اعطاني اياها قبل فترة.)

....

25) عبدالله يسأل أحمد: ماذا حدث لوالدك في زيارته السابقة للطبيب؟

احمد يرد: (الطبيب اعطى والدي ادوية جديدة.)

....

26) احمد انتقل لبيت جديد غير مفروش.

احمد: هل تذهب معي الى السوق يا عبدالله؟
عبدالله يرد: ماذا تريد من السوق؟
احمد يرد: (اريد ان اشتري اثاث لبيتي.)

....

27) احمد وعبدالله يتعاونون في طبخ وجبة.

احمد يقول لعبدالله: (الطبخة تحتاج الى زبدة.)

....

28) احمد يسأل عبدالله: ماذا كان يريد سامي منك؟

عبدالله يرد: (سامي جاء الي وطلب نصيحة.)

....

29) احمد يسأل عبدالله: ماذا يريد والدك؟

عبدالله يرد: (والدي يريد سكر.)

....

30) احمد يسأل عبدالله: ماذا فعلت بالامس وهل شاهدت الفيلم الذي حدثتك عنه؟

عبدالله يرد: (البارحة ذهبت الى بيت خالد وشاهدت الفيلم.)

....

Appendix D: Forced-choice elicitation test

Name: الاسم:

Please choose the item that you feel the most appropriate to fill the gap by drawing a circle around it. Note that the item (---) means nothing is required to be filled in the gap. The following are examples:

المطلوب في هذا الاختبار ان تقوم باختيار الجواب الصحيح من الاختيارات المطروحة حيث ان الخيار (---) يعني فراغ. التالي هو عبارة عن امثلة لطريق الحل:

Example (1):   :(1) مثال

I (went, goed, goes, going) to Paris last month.

Example (2):   :(2) مثال

This is (---, his, our, their) my car.

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1) My father has heart problems and his doctor advises him to not add _____ (---, a, an, the) salt to the food.

2) A: I bought some shoes online, but they were damaged on arrival.

   B: Oh, dear. What did you do?
   A: I went to the shop and asked _____ (---, a, an, the) manager for my money back.

3) A: I was very hungry last night.

   B: Didn't you find anything to eat in the fridge?
   A: Yes! I found _____ (---, a, an, the) banana in the fridge and I ate it but it didn't really help.

4) A: I went on holiday to Egypt last summer.

   B: Did you see any interesting things?
   A: Yes, I saw _____ (---, a, an, the) Pyramids.

5) A: I heard that it was Sami's birthday last week. Did he have a good time?

   B: Yes! It was good. He got lots of gifts. I gave him _____ (---, a, an, the) cat.

6) A: I saw you in the bookstore yesterday. Why did you go there?

   B: I was looking for _____ (---, a, an, the) books about animals.

7) A: Have you enjoyed your vacation?

   B: Yes, I have. My wife and I went to Dubai this summer. _____ (---, a, an, the) city is beautiful but my wife did not like it.

8) There is a boy and girl in the park. (---, a, an, the) girl is hurt and (---, a, an, the) boy looks frightened.

9) I went to the bakery and I bought (breads – a bread – a loaf of bread).

10) A: Come on! We've been in this shop for hours.

   B: I can't make up my mind. Which coat do you like best?
   A: I prefer (---, a, an, the) coat with stripes.

11) A: Hi Sami! How was school?

   B: We had two math tests.
   A: Did you find (---, a, an, the) tests difficult?

12) A: How was your trip to Dubai?

   B: Great! I went to the cinema, and ate in lots of great restaurants. And I saw _____ (---, a, an, the) friend of mine.

13) A: I have just moved to a new house.

   B: That is great news. How is it?
   A: It is fully furnished and I like it. I just need to buy _____ (---, a, an, the) tea-tables to put in the living room.

14) A: Mom! Where did you put my cap?

   B: Which cap do you mean?
   A: I mean (---, a, an, the) cap that has 'NIKE' written on it.

15) A: I've got my relatives coming for vacation.

   B: How many are there?
   A: Twenty. I need to go the store to buy _____ (---, a, an, the) milk.

16) A: How is your mother? I heard that her blood pressure is very low.

   B: Yes, it is. The doctor advises her to take (a spoon of salt – a salt – salts) every day.

17) A: We will go to Dubai this holiday.

   B. Oh, Lucky you! I thought that all tickets were sold out. When did you buy them?
   A. We bought (---, a, an, the) tickets four months in advance.

18) A: My son went to school very early yesterday.

   B: So, was he the first person there?
   A: No! There were a few students and teachers. He had nothing to do so he talked to _____ (---, a, an, the) student.

19) A: Where is our Teacher?

   B: He is searching for _____ (---, a, an, the) books in the library.

20) I lend Sami (an amount of money – a money – moneys) to help him with his mortgage.

21) A: Hurry up or we'll miss our flight. What are you doing?

   B: I'm looking for my keys.
   A: You have just put (---, a, an, the) keys in your pocket.

22) A: Where are you going Sami?

   B: I need to go to the Mall now. I am going to buy _____ (---, a, an, the) red shirts for the players of our football team.

23) A: What is Sami's favourite food?

   B: Sami likes to eat _____ (---, a, an, the) rice.

24) A: Sarah just asked me for some more cash!

   B: I don't understand why she is always so short.
   A: She says she will use (---, a, an, the) cash to pay her gas bill.

25) My son asked me to give him (a millk – a cup of milk – milks).

26) A: We had science in school today with Mr Smith.

   B: What did you learn?
   A: We learned that Mr Smith wants to visit (---, a, an, the) moon!

27) A: What did you buy from the store?

   B: I bought _____ (---, a, an, the) pen.

28) A: Go and check the next room. You may find a chair.

   B: I have checked! There are only _____ (---, a, an, the) tables.

29) One of my colleagues at work came to me and asked for (an advice – a piece of advice – advices)

30) A: Sam moved to a new house.

   B: Yes I knew. The house is unfurnished. So, he needs to buy _____ (---, a, an, the) furniture.

31) A: Where's Sami? Is he coming home for lunch?

   B: No! He is eating lunch with _____ (---, a, an, the) colleague and he will be back home after that.

32) A: We can't have what we planned for lunch.

   B: Why not?
   A: This recipe requires (a butter – a piece of butter – butters), but we don't have any.

33) Sami is telling John about how he received the news of his father death.

   Sami: I was at home and listening to (---, a, an, the) music when my mother phoned me and told me that my father had just passed away. I really felt sad.

34) A: There are _____ (---, a, an, the) cars in front of your house. Are they all yours?

   B: No. They are not mine. Actually, I don't know how to drive.

35) A. My computer has been infected by several viruses.

   B. I'm sorry to hear that! Did you lose any of your files?
   A. No, but it may have damaged (---, a, an, the) hard disk.

36) A: Did you go to the grocery store?

 B: Yes I did and I bought _____ (---, a, an, the) oranges and other items.

37) A: I am sure that John is the killer.

 B: Do you have_____ (---, a, an, the) evidence for your claim?
 A: No!

38) A person in the office and he asks for (an information – a piece of information – informations) about our new product.

39) A: I left my wallet behind this morning.

 B: That's awful! What did you do?
 A: I went back home to get (---, a, an, the) wallet.

40) In a restaurant

 Waiter: Can I take your order, sir?
 Customer: Can you please come back after ten minutes? I am waiting for _____ (---, a, an, the) colleagues from work. They will be here soon.

41) Sami likes his sandwich with (a slice of cheese – a cheese – cheeses).

42) A. I went to watch our local football team yesterday.

 B. It was disappointing, wasn't it?
 A. Yes, the rain affected (---, a, an, the) players.

43) A: Look out of the window!

 B: Why? What is the problem?
 A: There is _____ (---, a, an, the) man outside and he looks ill.

44) A: My son has dry skin.

 B: How is he dealing with it?
 A: He is using _____ (---, a, an, the) oil on his skin, but I don't know if it will work.

45) Husband: Where are you planning to go at this time of the night?

 Wife: I am going to the bakery to buy _____ (---, a, an, the) bread. I just realised that there is nothing left for our children to have for breakfast.

46) A: My mother is not feeling well right now.

 B: Ok! I think we need to call for _____ (---, a, an, the) ambulance.

47) Sami was thirsty so he drank (waters – a bottle of water – a water).

48) A: I am glad that Sami and his sister are no longer arguing about some money that

their mother left them.

B: Was there tension between them, then?

A: Yes, they each wanted (---, a, an, the) money for themselves.

49) A: Why didn't you come to the party last night?

B: Well! I didn't want to come. I stayed at home and watched _____ (---, a, an, the) nice program about animals on TV.

50) A: Sami's new job is odd.

B: What does he do?

A: He advises companies that sell _____ (---, a, an, the) information.

51) A: Five days ago, Mr. Sami, a famous businessman, was murdered! Are you

investigating his murder?

B: Yes. We are working to find (---, a, an, the) murderer of Mr. Sami, but we still don't know who he is.

52) A: Can I help you, sir.

B: Yes! I bought some cheese from your store, but it is completely spoiled! I want to talk to (---, a, an, the) owner of this store right now!

53) In a store:

Seller: How can I help you Sir?

Customer: Well, I would like to buy _____ (---, a, an, the) red bags. Can you help me?

Seller: Yes, I can.

54) A: It was raining last night and I didn't have anywhere to go.

B: So what did you do?

A: I cleaned my house. Then I watched _____ (---, a, an, the) movie.

55) A: We have received complaints from customers who bought our new product.

B: What did you do?

A: We offered _____ (---, a, an, the) customers compensation.

56) Waiter: What do you want for dinner Sir?

Customer: I want to have (a rice – rices – a dish of rice).

57) A: My daughter called yesterday?

B: Good! How is she?

A: She is fine. She called for _____ (---, a, an, the) advice.

58) A: Excuse me! Can you please let me in?

   B: What do you want?

   A: I am a reporter. I need to talk to_____ (---, a, an, the) winner of this race. Can you please help me?

59) In a jewellery shop

   Seller: Can I help you Madam?

   Customer: Yes! I would like to buy _____ (---, a, an, the) hats for my daughters. Can you help me please?

Appendix E: WTT statistical results

Table D.1. WTT: Paired samples t-tests in the definite context

| | Response Type | | | | | | Paired samples t-tests | | |
| | Target (the) | | *Commission (a) | | *Omission | | Target vs. *Commission | Target vs. *Omission | *Commission vs. *Omission |
LEVEL	M	SD	M	SD	M	SD			
LB	.33	.474	.02	.143	.65	.481	**.001***	**.019***	**.001***
UB	.70	.458	.05	.217	.25	.432	**.001***	**.001***	**.001***
LE	.91	.293	.03	.178	.06	.241	**.001***	**.001***	.095
UE	.90	.298	.03	.171	.07	.240	**.001***	**.001***	.112
LLI	.90	.298	.04	.195	.06	.236	**.001***	**.001***	.318
ULI	.94	.229	.02	.143	.03	.183	**.001***	**.001***	.318
UI	.89	.312	.04	.187	.07	.260	**.001***	**.001***	.127
Ad	.86	.344	.04	.199	.09	.295	**.001***	**.001***	.208

Table D.2. WTT: Paired samples t-tests in the indefinite singular context

| | Response Type | | | | | | Paired samples t-tests | | |
| | Target (a) | | *Commission (the) | | *Omission | | Target vs. *Commission | Target vs. *Omission | *Commission vs. *Omission |
LEVEL	M	SD	M	SD	M	SD			
LB	.00	.000	.00	.000	1.00	.000	N/A	N/A	N/A
UB	.22	.417	.02	.147	.76	.431	**.005***	**.001***	**.001***
LE	.56	.499	.06	.247	.38	.488	**.001***	.058	**.001***
UE	.70	.458	.04	.192	.26	.439	**.001***	**.001***	**.001***
LLI	.83	.380	.12	.331	.05	.218	**.001***	**.001***	.109
ULI	.82	.386	.03	.171	.15	.359	**.001***	**.001***	**.004***
UI	.98	.124	.02	.124	.00	.000	**.001***	**.001***	.321
Ad	1.00	.000	.00	.000	.00	.000	N/A	N/A	N/A

Table D.3. WTT: Paired samples t-tests in the indefinite plural context

| | Response Type | | | | | | Paired samples t-tests | | |
| | Target (null) | | *Overuse (the) | | *Overuse (a) | | Target vs. *overuse (the) | Target vs. *overuse (a) | *Overuse (the) vs. *overuse (a) |
LEVEL	M	SD	M	SD	M	SD			
LB	.67	.577	.00	.000	.33	.577	**.025***	**.014***	**.042***
UB	.92	.289	.00	.000	.08	.289	**.001***	**.001***	.161
LE	.73	.452	.06	.242	.21	.415	**.001***	**.001***	**.010***
UE	.90	.304	.00	.000	.10	.304	**.001***	**.001***	**.001***
LLI	.88	.331	.00	.000	.12	.331	**.001***	**.001***	**.001***
ULI	1.00	.000	.00	.000	.00	.000	N/A	N/A	N/A
UI	1.00	.000	.00	.000	.00	.000	N/A	N/A	N/A
Ad	1.00	.000	.00	.000	.00	.000	N/A	N/A	N/A

Table D.4. WTT: Paired samples t-tests in the indefinite mass context

| | Response Type | | | | | | Paired samples t-tests | | |
| | Target (null) | | *Overuse (the) | | *Overuse (a) | | Target vs. *overuse (the) | Target vs. *overuse (a) | *Overuse (the) vs. *overuse (a) |
LEVEL	M	SD	M	SD	M	SD			
LB	1.00	.000	.00	.000	.00	.000	N/A	N/A	N/A
UB	1.00	.000	.00	.000	.00	.000	N/A	N/A	N/A
LE	.70	.463	.06	.241	.24	.432	**.001***	**.001***	**.002***
UE	.66	.475	.00	.000	.34	.475	**.001***	**.002***	**.001***
LLI	.61	.492	.03	.163	.35	.481	**.001***	**.023***	**.001***
ULI	.65	.480	.00	.000	.34	.477	**.001***	**.003***	**.001***
UI	.75	.434	.00	.000	.25	.434	**.001***	**.001***	**.001***
Ad	.83	.381	.00	.000	.17	.381	**.001***	**.001***	**.043***

Table D.5. WTT: All contexts (LB – UB) groups: Post hoc (TUKEY, HSD) tests

CONTEXT	RESPONSE	Mean		LB - UB
		LB	UB	
DEFINITE	THE (TARGET)	.33	.70	**.001***
	*A (COMMISSION)	.02	.05	.980
	*OMISSION	.65	.25	**.001***
INDEFINITE SINGULAR	A (TARGET)	.00	.22	.553
	*THE (COMMISSION)	.00	.02	1.000
	*OMISSION	1.00	.76	.309
INDEFINITE PLURAL	NULL (TARGET)	.67	.92	.468
	*OVERUSE-THE	.00	.00	1.000
	*OVERUSE-A	.33	.08	.419
INDEFINITE MASS	NULL (TARGET)	1.00	1.00	1.000
	*OVERUSE-THE	.00	.00	1.000
	*OVERUSE-A	.00	.00	1.000

Table D.6. WTT: All contexts (UB – LE) groups: Post hoc (TUKEY, HSD) tests

CONTEXT	RESPONSE	Mean		UB - LE
		UB	LE	
DEFINITE	THE (TARGET)	.70	.91	**.001***
	*A (COMMISSION)	.05	.03	.989
	*OMISSION	.25	.06	**.001***
INDEFINITE SINGULAR	A (TARGET)	.22	.56	**.001***
	*THE (COMMISSION)	.02	.06	.994
	*OMISSION	.76	.38	**.001***
INDEFINITE PLURAL	NULL (TARGET)	.92	.73	**.033***
	*OVERUSE-THE	.00	.06	.096
	*OVERUSE-A	.08	.21	.316
INDEFINITE MASS	NULL (TARGET)	1.00	.70	.221
	*OVERUSE-THE	.00	.06	.617
	*OVERUSE-A	.00	.24	.486

Table D.7. WTT: All contexts (LE – UE) groups: Post hoc (TUKEY, HSD) tests

| CONTEXT | RESPONSE | Mean | | LE - UE |
		LE	UE	
DEFINITE	**THE (TARGET)**	.91	.90	1.000
	*A (COMMISSION)	.03	.03	1.000
	*OMISSION	.06	.07	1.000
INDEFINITE SINGULAR	**A (TARGET)**	.56	.70	.108
	*THE (COMMISSION)	.06	.04	.984
	*OMISSION	.38	.26	.212
INDEFINITE PLURAL	**NULL (TARGET)**	.73	.90	**.001***
	*OVERUSE-THE	.06	.00	**.001***
	*OVERUSE-A	.21	.10	.090
INDEFINITE MASS	**NULL (TARGET)**	.70	.66	1.000
	*OVERUSE-THE	.06	.00	**.029***
	*OVERUSE-A	.24	.34	.874

Table D.8. WTT: All contexts (UE – LLI) groups: Post hoc (TUKEY, HSD) tests

| CONTEXT | RESPONSE | Mean | | UE - LLI |
		UE	LLI	
DEFINITE	**THE (TARGET)**	.90	.90	1.000
	*A (COMMISSION)	.03	.04	.999
	*OMISSION	.07	.06	.999
INDEFINITE SINGULAR	**A (TARGET)**	.70	.83	.418
	*THE (COMMISSION)	.04	.12	.116
	*OMISSION	.26	.05	**.003***
INDEFINITE PLURAL	**NULL (TARGET)**	.90	.88	1.000
	*OVERUSE-THE	.00	.00	1.000
	*OVERUSE-A	.10	.12	1.000
INDEFINITE MASS	**NULL (TARGET)**	.66	.61	.995
	*OVERUSE-THE	.00	.04	.861
	*OVERUSE-A	.34	.35	1.000

Table D.9. WTT: All contexts (LLI – ULI) groups: Post hoc (TUKEY, HSD) tests

CONTEXT	RESPONSE	Mean		LLI - ULI
		LLI	ULI	
DEFINITE	THE (TARGET)	.90	.94	.827
	*A (COMMISSION)	.04	.02	.928
	*OMISSION	.06	.04	.983
INDEFINITE SINGULAR	A (TARGET)	.83	.82	1.000
	*THE (COMMISSION)	.12	.03	.064
	*OMISSION	.05	.15	.580
INDEFINITE PLURAL	NULL (TARGET)	.88	1.00	.077
	*OVERUSE-THE	.00	.00	1.000
	*OVERUSE-A	.12	.00	.058
INDEFINITE MASS	NULL (TARGET)	.61	.65	.999
	*OVERUSE-THE	.04	.00	.863
	*OVERUSE-A	.35	.35	1.000

Table D.10. WTT: All contexts (ULI – UI) groups: Post hoc (TUKEY, HSD) tests

CONTEXT	RESPONSE	Mean		ULI - UI
		ULI	UI	
DEFINITE	THE (TARGET)	.94	.89	.701
	*A (COMMISSION)	.02	.04	.983
	*OMISSION	.04	.07	.886
INDEFINITE SINGULAR	A (TARGET)	.82	.98	.152
	*THE (COMMISSION)	.03	.02	1.000
	*OMISSION	.15	.00	.158
INDEFINITE PLURAL	NULL (TARGET)	1.00	1.00	1.000
	*OVERUSE-THE	.00	.00	1.000
	*OVERUSE-A	.00	.00	1.000
INDEFINITE MASS	NULL (TARGET)	.65	.75	.846
	*OVERUSE-THE	.00	.00	1.000
	*OVERUSE-A	.35	.25	.900

Table D.11. WTT: All contexts (UI – Ad) groups: Post hoc (TUKEY, HSD) tests

CONTEXT	RESPONSE	Mean		UI - Ad
		UI	Ad	
DEFINITE	THE (TARGET)	.89	.87	.999
	*A (COMMISSION)	.04	.04	1.000
	*OMISSION	.07	.09	1.000
INDEFINITE SINGULAR	A (TARGET)	.98	1.00	1.000
	*THE (COMMISSION)	.02	.00	1.000
	*OMISSION	.00	.00	1.000
INDEFINITE PLURAL	NULL (TARGET)	1.00	1.00	1.000
	*OVERUSE-THE	.00	.00	1.000
	*OVERUSE-A	.00	.00	1.000
INDEFINITE MASS	NULL (TARGET)	.75	.83	.996
	*OVERUSE-THE	.00	.00	1.000
	*OVERUSE-A	.25	.17	.996