母語為中文的成年學習者對於第二語言英文屈折詞素的習得

Acquisition of Inflectional Morphemes *-ed* and *-ing*
by Adult L1 Chinese Speakers of L2 English

by

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母語為中文的成年學習者對於第二語言英文屈折詞素的習得

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摘要

本研究探討母語為中文的成年學習者對於第二語言英文屈折詞素 *–ing* 以及 *–ed* 的習得。以普遍語法的原則與參數架構為基礎，本研究測試兩個相牴觸的理論:全運行/全轉換假設 (FT/FA) (Schwartz & Sprouse, 1996)及部分運行普遍語法(Tsimpli & Smith, 1991)，以決定哪一個理論比較能解釋非母語學習者對於 *–ing* 及 *–ed* 習得的歧異性。

此次研究參與者包括六十位母語為中文的成年學習者，以及母語是英文者的對照組。依照牛津線上英文分級測驗的結果，六十位母語為中文的成年學習者被分成三個組別 (二十個初級、二十個中級、二十個高級)。所有參與者都接受文法判斷測驗，其包含的六十七個句子中有三十一個 *–ing* 及 三十一個 *–ed* 的錯誤詞素及各種干擾項。

研究結果顯示每組在 *–ing* 與 *–ed* 詞素的習得方面皆有進步。以英文能力分組是以全運行/全轉換假設為根據，該理論表示目標語言學習能讓第二語言學習者能力近似於說母語者。研究結果亦強調近似母語的表現與母語者直覺之間的差異性。高級組與對照組之間的表現並無顯著差異，但是對於兩種詞素的使用並不相同。全運行/全轉換假設及部分運行普遍語法都能解釋這些結果。全運行/全轉換假設能解釋高級組近似母語的表現，因為該組表現與對照組相近。同時，部分運行普遍語法能解釋 *–ing* 與 *–ed* 詞素使用上的差異性。

關鍵字: 屈折詞素、原則與參數、全運行/全轉換假設、部分運行普遍語法

ABSTRACT

This study explores the acquisition of the second language (L2) English inflection morphemes *–ing* and *–ed* by adult first language (L1) Chinese speakers. Following the Principles and Parameters (PP) framework of Universal Grammar (UG), it seeks to test against two competing hypotheses, the Full Transfer Full Access (FT/TA) (Schwartz and Sprouse, 1996) and the Partial Access to Universal Grammar Hypothesis (Tsimpli & Smith, 1991), to determine which can better explain the non-native divergence in the acquisition of *–ing* and *–ed*.

The participants in this study consist of 60 adult L1 Chinese speakers of L2 English and a native English speaker control group. The 60 adult learners were divided into three proficiency groups (20 elementary, 20 intermediate, and 20 advanced) based on the results of the Online Oxford Placement Test. A grammatical judgment test consisting of sixty-seven sentences, including 31 items related to the morpheme *–ing* and 31 items related to the morpheme *–ed* and fifty distractors, was given to the participants.

The results of the study indicated that the performance of each group improved based on proficiency for both the morpheme *-ing* and the morpheme *-ed*. This proficiency-based performance could be attributed to Full Transfer/Full Access Hypothesis which holds the position that target language input results in the final state of the L2 similar to a native speaker. The results also highlighted the difference between native-like performance and native-like intuition. The difference between the advanced group and the control group's performance was not significant; however, the use of the two morphemes by the advanced group was not the same as the control group's. The FT/FA Hypothesis and the Partial Access to UG can both explain these

results. The FT/FA Hypothesis explains the native-like performance of the advanced group because the final state of the L2 is similar to the control group. However, at the same time, the Partial Access to UG explains the differences in the use of the morpheme -*ing* and -*ed*.

Keywords: inflectional morphemes, principles and parameters, Full Transfer/Full Access (FT/FA), Partial Access to UG, L2, SLA

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LIST OF ABBREVIATIONS

ASSOC	Associative
BSM	Bilingual Syntax Measure
CL	Classifier
CP	Complement Phrase
CPH	Critical Period Hypothesis
CRS	Currently Relevant State
DUR	Durative
EXP	Experiential
FT/FA	Full Transfer Full Access
GEN	Genative
GJT	Grammaticality Judgment Test
IL	Interlanguage
IRH	Impaired Representative Hypothesis
L1	First Language
L2	Second Language
MSIH	Missing Surface Inflection Hypothesis
PFV	Perfective Aspect
PP	Principles and Parameters
TL	Target Language
UG	Universal Grammar

CHAPTER ONE: INTRODUCTION

1.1 Overall background and rationale for the study

During the last half-century, many linguists have researched the acquisition of second language based upon Chomsky's principles and parameters in his theory of Universal Grammar (UG). In the field of second language research that developed from this, three influential views have arisen: 1) no access to UG (Beck, 1997), 2) Partial Access to UG hypothesis (Tsimpli & Smith, 1991), and 3) the Full Transfer Full Access (FT/TA) to UG model (Schwartz & Sprouse, 1996). Each of these hypotheses represents a spectrum of views regarding Universal Grammar's involvement in second language acquisition, with no access to UG on one end and the FT/FA on the other. The Partial Access to UG placed somewhere in-between as it holds a position that the critical period plays a role in adult second language acquisition.

One area of particular interest to researchers has been the acquisition of inflectional morphemes (e.g., *–s*, *-ed*, *-ing*, *-en*, *er*, *est*, *etc*.), which are located within the functional categories (e.g., auxiliaries, determiners, pronouns, and complementisers). Studies concerning inflectional morphemes first began with L1 English speaking children (Brown, 1973; Villiers & Villiers, 1973). Research into L1 acquisition of inflectional morphemes was then extended to L2 non-English speaking children (Dulay & Burt, 1974; Hsieh, 2009; Ionin & Wexler, 2002). In addition to the acquisition of inflectional morphemes by L2 English speaking children, researchers continued their investigation into morpheme acquisition by L2 English speaking adults of different L1s (Krashen, 2002; Muftah & Wong, 2011; Wong, 2012).

1.2 Statement of the research problem

Research into the acquisition of inflectional morphemes is bountiful; there still remains interest in their acquisition based upon several studies conducted within the last five years (Hsieh, 2009; Muftah & Wong, 2011; Wong, 2012). Yet there are few studies that have been conducted in Taiwan on the acquisition of inflectional morphemes from a generative research position. Within the last several years research has been conducted in Taiwan; however, these studies are either from a semantic viewpoint (Li, 2005; Tsai & Tseng, 2008; Wible & Huang, 2003) or they only sought to prove or disprove a single hypothesis related to UG on a single inflectional morpheme (Hsieh, 2006), rather than on comparing two theories and on two or more inflectional morphemes as this study intends to do.

1.3 Purpose of the study

The purpose of this study is to determine which of the two above mentioned hypotheses, the FT/FA Hypothesis or the Partial Access to UG Hypothesis, can better explain the acquisition of the inflectional morphemes *–ed* and *–ing*. Due to the limited scope of this study, only the FT/FA Hypothesis and the Partial Access to UG hypothesis will be focused on, and the No Access to UG will not be included. This study focuses on the acquisition of two inflection morphemes, *-ed* and *–ing* and compares the two competing hypotheses in order to help fill a gap in research and contribute to the literature regarding the acquisition of English inflectional morphemes in general and the acquisition of *–ed* and *-ing* by adult L1 Chinese speakers in particular.

1.4 Research Questions

This study aims to answer the following two research questions:

1. Is there a difference between three experimental groups of adult L1 Chinese speakers of L2 English (elementary, intermediate, and advanced) and a control group of L1 English speakers' acquisition of the inflectional morphemes *–ed* and *–ing*?
2. Which theory, the FT/FA hypothesis or the Partial Access to UG hypothesis, better explains the native non-native divergence on the use of inflectional morphemes *–ed* and *–ing*?

1.5 The structure of the thesis

The structure of this thesis is as follows. Chapter one provides the relevant background to the study and the need to fill in a gap in the literature. Chapter two provides an overview of the syntactic background of English inflectional morpheme *-ed* and *-ing* as well as Mandarin Chinese aspects (perfective *-le*, experiential *-guo*, and durative *-zai*/*-zhe*). Chapter three is comprised of two sections. In Section 3.1, the two competing theories are presented and explained with relevant studies analyzed. Section 3.2 provides background to the previous research in L2 English inflectional morpheme studies during the last few decades. Chapter four describes a pilot study and the main study and the results. Chapter five discusses the results of the main study. The limitations of the study, suggestions for further research, and the pedagogical implications in English language teaching are presented in Chapter Six.

CHAPTER TWO: SYNTACTIC BACKGROUND

This chapter introduces the syntactical background of the inflectional morphemes in English and aspectual morphemes in Mandarin Chinese. First, in section 2.1, this chapter describes the English regular past tenses *-ed* and present progressive *-ing*. Section 2.2 reviews aspectual morphemes in Mandarin Chinese. The Mandarin Chinese perfective aspectual morpheme *–le* will be discussed in section 2.2.1. The experiential aspects and its respective aspectual morphemes, *-guo*, will be discussed in section 2.2.2 followed by section 2.2.3 where the durative aspectual morphemes *-zai* and *-zhe* will be covered. Lastly, this chapter will conclude with a summary in section 2.3.

2.1 English Inflectional Morphemes

Tense is the expression of the relationship between an action, event, or state with in a reference in time that is described grammatically through the form of the verb (Comrie, 1985; Radford, 1997; Richards & Schmidt, 2010; Swan, 2013). Tense in English is marked by inflectional morphemes such as *-ed*, *-s*, and *-ing*. In English, morphemes are divided and sub-divided into different categories based on their formation and uses. The first divisions are bound and free morphemes. Free morphemes include content and lexical words (e.g., car, frog) and functional or grammatical words (e.g., and, in, the). Bound morphemes are divided into affixes (e.g., *re-, un-, -ness, -ize*) and roots (e.g., *derm, endo*).

Affixes are further divided into derivational and inflectional morphemes. Derivational morphemes are morphemes (e.g., prefixes and suffixes) that serve a lexical function and change the class of the words (*antigovernment*, *commitment*). Inflectional morphemes are exclusively suffixes that serve a grammatical purpose and are affixed at the end of a word (e.g., *commits*) or at the end of a derivational complex

word such as '*commitments'*. For example, the affix *–s* can simply be added to the end of the word '*commit'* forming '*commits*.' However, if a derivational morpheme '*-ment'* is placed after '*commit*' forming '*commitment*,' the inflectional morpheme must follow '*-ment*' creating '*commitments*.' Placing the inflectional morpheme after '*commit*' and before *–ment*, forming '*commitsment*' is ungrammatical.

Figure 2.1 Division of morphemes adapted from Parker & Riley (2014:108)

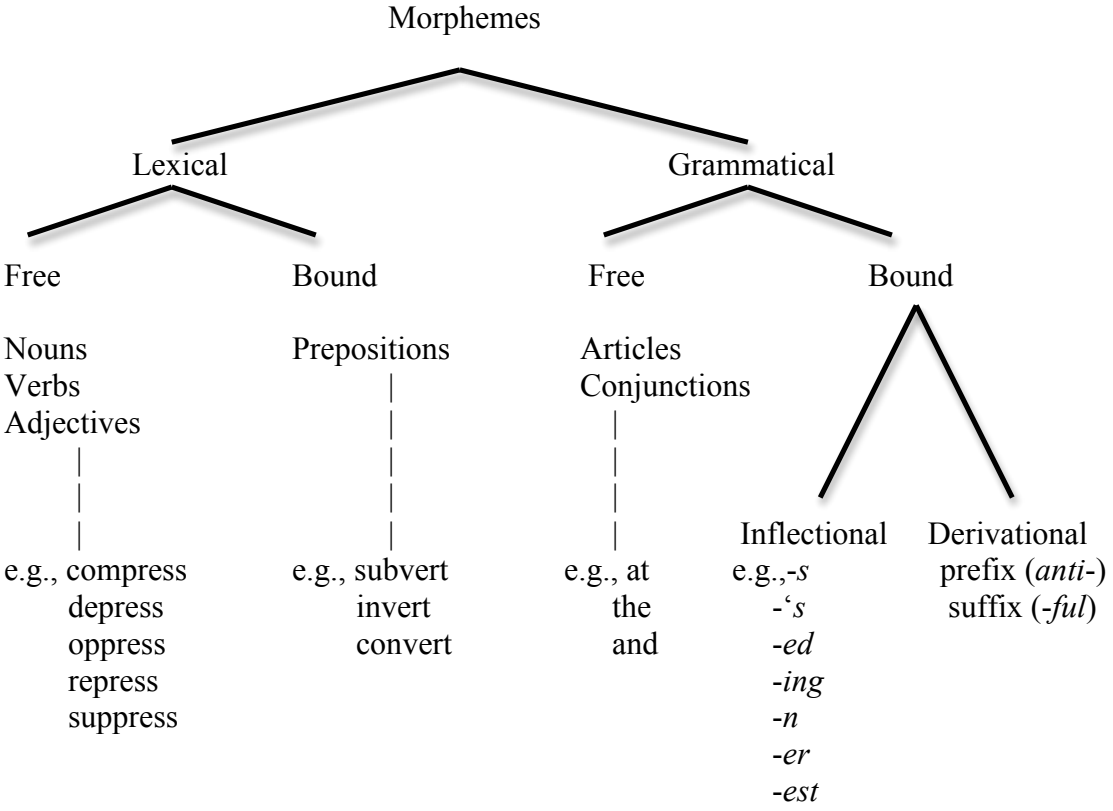


Figure 2.1 illustrates how morphemes are broken down into lexical and grammatical; the two affixes, *-ed* and *-ing*, are inflectional and will be discussed in the following sections.

2.1.1 Regular past morpheme

While the English past tense appears in two forms, regular (*jumped*) and irregular (*ran*), this study focuses on the regular past morpheme *-ed*; therefore, the

irregular past will not be covered in the discussion below as it lacks a surface morphological change.

2.1.1.1 Regular past formation

The English regular past tense is formed by adding the inflected morpheme –*ed* to the verbs, as in Table 2.2

Table 2.2 Regular Past Formation (Azar, 1995:183)

	End of the verb	-*ed* form
Rule 1	a consnant + -*e* smile erase	Add -*d* smiled erased
Rule 2	One vowel + one consonant stop rub	Double the consonant, add -*ed* stopped rubbed
Rule 3	Two vowels + one consonant rain need	Add -*ed*; do not double the consonant Rained Needed
Rule 4	Two consonants count help	Add -*ed*; do not double the consonant counted helped
Rule 5	Consonant + -*y* study carry	Change -*y* to -*i*, add -*ed* studied carried
Rule 6	Vowel + -*y* play enjoy	Add-*ed*; do not change -*y* to -*i* Played enjoyed

2.1.1.2 Regular past usage

According to Azar (1989), Hewings (2001), and Swan (2012), the simple past tense can be used in a variety of situations to express past events, an event or action that began and was completed in the past. The past tense is often used in conjunction with time words (*yesterday*, *last*, and *ago*) that commits the sentence or utterance to a previous time when the action or event was completed. Azar (1989), Hewings (2001),

and Swan (2012) provide a concise list of situations and circumstances when the past tense is used.

First, the past tense morpheme *-ed* is used to describe short, finished actions and events and longer situations that existed for a period of time but not anymore. Adverbial time phrases can be used in order to indicate the specific time the event occurs if the speaker chooses too. This means that the simple past tense can tell not only when a situation occurred but also how long. Sentence (1) is an example of a recent event that occurred in the past and sentence (2) illustrates an event in the distance past. Example (3) takes place in the past at an unknown time; however, the duration of the activity is limited to when the speaker was attending university.

(1) Peter wanted to go to the department store last night.

(2) At one time, Rome controlled most of Europe.

(3) When I was in university, I played on the school baseball team.

Second, the inflectional morpheme *-ed* can also be used with repeated events which may not happen again. The example below describes an event that occurs repeatedly over years during the summer. The family traveling to different cities demonstrates how a particular event may not occur again.

(4) Every summer, the Smith family traveled to a different city on vacation.

Finally, the regular past *–ed* can describe states if the state no longer exists. According to sentence (5), the person in question was a member of a table tennis club while she worked. When she retired or discontinued working, she was no longer a member of the club.

(5) She belonged to the table tennis club until she retired.

2.1.2 Present progressive morpheme

Just as the inflectional morpheme *–ed* forms the regular past tense verbs, the inflectional morpheme *–ing* in conjunction with an auxiliary verb form the progressive tense verbs. While the regular past primarily deals with action, events, and states that were begun and completed in the past, the present progressive, also referred to as the present progressive form, expresses the concept that an action or event that has begun in a time prior to the current moment, but has yet to be completed (Azar, 1989). The progressive form includes the present progressive (e.g. *is running*), past progressive (e.g. *was running*), future progressive (e.g. *will be running*), and present perfect progressive (e.g. *has/have been running*), past perfect progressive (e.g. *had been running*), and future perfect progressive (e.g. *will have been running*); however, the focus of the present study is the present progressive tense. Therefore, the discussion of the progressive will be focused only on the present progressive. Let us consider the formations and usage of English present progressive tenses next.

2.1.2.1 Present progressive tense formation

The present progressive is formed by attaching the inflectional morpheme *-ing* to a thematic verb and adding an auxiliary verb (e.g., *am*, *are*, or *is*) immediately before the verb. However, if the sentence contains an adverbial (e.g. *not*, *always*), the adverbial can be placed between the auxiliary and the thematic verb.

Table 2.3 Formation of the Progressive (Azar, 1989:9)

	End of the verb	*-ing* form
Rule 1	A consonant + e smile write	Drop the –e and add *-ing* smiling writing
Rule 2	One vowel + one consonant sit run	Double the consonant and add *-ing*[1] sitting running
Rule 3	Two vowels + one consonant read rain	Add *–ing* and do not double the consonant reading raining
Rule 4	Two consonants stand push	Add *–ing* and don not double the consonant standing pushing

2.1.2.2 Present progressive usage

The inflectional morpheme *-ing* can only be used under a limited number of circumstances when used to form the present progressive tense. Celce-Murcia and Larson-Freeman (1999) and Swan (2013) provide six occasions in which *-ing* can be used in the present progressive tense. The use of present progressive can also be accompanied by adverbials (e.g., now, around now, always) but using these adverbs are not considered a requirement.

First, the present progressive can indicate an event or events that are occurring during the time of speaking or around the time of speaking. Examples (6) and (7) describe an ongoing event at the time of speaking, and in this case, the adverb 'now' is included in example (6) as a further indication of this ongoing event.

(6) We are eating now.

(7) Why is she laughing?

[1] Exception to Rule 2: the consonants w, x, and y are not doubled.

Second, the morpheme -*ing* can be used to describe repeated actions so long as they occur during or around the time of speaking. The actions in examples (8) and (9) show that actions that occur repeatedly at the time of speaking will use the progressive -*ing*.

(8) Why is he hitting the dog?

(9) He is bouncing the ball in the hallway.

Third, developmental changes or a change in progress can be described with the progressive –*ing*, and examples (10) and (11) illustrate this.

(10) That child's getting bigger every day.

(11) Housing prices are going up again.

Fourth, while the future employs the auxiliary *will*, the progressive morpheme –*ing* can also be used to express events in the future and this can be seen in examples (12) and (13).

(12) He is leaving tomorrow.

(13) She is passing through next month.

Fifth, temporary situations can also be described using the progressive -*ing*. This differs from the activity in progress situation in that a definitive point is implied but not clearly stated. In example (14), Sarah has rented a room at a hotel and at some point she will leave. During the period of time that she stays there at the hotel the progressive -*ing* can be used. The same explanation can be given for Jim and his sandwich in example (15); at some point Jim will finish the sandwich, but during the period of time he has the sandwich the -*ing* morpheme can be used.

(14) Sarah is staying in a hotel.

(15) Jim is eating a sandwich.

And finally, the progressive –ing is also used when making an "emotional comment on present habits" (Celce-Murcie & Larsen-Freeman, 1999:117). The emotional comments below are those of approval (16) and disapproval (17).

(16) He's always delivering in a clutch situation (Celce-Murcie & Larsen-Freeman, 1999:117).

(17) He's forever acting up at these affairs (Celce-Murcie & Larsen-Freeman, 1999:117).

2.1.2.3 Limitations of the progressive *-ing*

While the present progressive tense can be used with most verbs, there are verbs that are infrequently used with the progressive and others that are not used at all. In examples (18) and (19), the verb *see* is a verb that is infrequently used with the progressive; the reason that it is permissible to be used with the progressive is that in (19) it takes on a different meaning. There are other verbs that operate in the same manner, such as: think, have, taste, etc. (Azar, 1989). Examples (20) and (21) are representative of a stative verb with the second example in the progressive tense being ungrammatical. Azar (1989) categorizes stative verbs to include mental states (e.g. *know*, *believe*), emotional states (e.g. *love*, *hate*), possession (e.g. *possess*, *have*), senses (e.g. *taste*, *hear*), and other existing states (e.g. *seem*, *look*).

(18) I see the dog playing in the park.

(19) I am seeing the doctor.

(20) I love the coffee at that café.

(21) *I am loving my visit in Taipei.

2.1.3 English inflectional morphemes summary

In conclusion, the inflectional morphemes *–ed* and-*ing* are used to mark the regular past and progressive tense with each being used in multiple situations. Due to the clear boundaries regarding English, no conflict or overlap will occur between regular past *–ed* and present progressive *–ing*, as regular past is used in conjunction with events that occur prior to the moment of speaking and the present progressive is primarily used concerning events that begin immediately prior to speaking and conclude at some point after speaking. Very little confusion exists in the usage of the regular past *–ed* and the present progressive *–ing*.

2.2 Chinese aspects

While English uses affixes, inflectional morphemes such as *-ed*, *-s*, *-ing*, etc. in particular, to indicate tense/aspect and agreement, Mandarin Chinese does not use an affixal marker to indicate tense. Mandarin Chinese operates within an aspectual system. While "tense relates the time of the situation referred to some other time, usually at the moment" (Comrie, 1981:1-2), "aspects are different ways of viewing the internal temporal constituency of a situation" (Holt, 1943:6 cited in Comrie, 1981:3). In other words, tense refers to the time in which an action is taken whereas aspects refers to the duration of an action.

According to Li & Thompson (1989:185), verbal aspects in Mandarin Chinese are demonstrated in four ways: "perfective (*-le* and perfectivizing expressions), imperfective or durative (*-zai* and *-zhe*), experiential (*-guo*), and delimitative (reduplication of the verb, *chàng yi chàng* (*sing sing*)." This current study is focused on the syntactic properties of the former three, and not on the delimitative aspect; therefore, the delimitative aspect will not be discussed below.

2.2.1 The perfective aspect

When discussing the perfective aspectual morpheme *–le*, it must be noted that *–le* binds events in four ways. However, these four ways are not always used to describe past events. Following Li & Thompson (1989), it is assumed that the aspectual morpheme *–le* binds events in the following ways: "1) by being a quantified event, 2) by being a definite or specific event, 3) by being inherently bound because of the meaning of the verb, and 4) by being the first in a sequence" (Li & Thompson, 1989: 201-202). The fourth is not directly related to the study and will not be covered in this section.

2.2.1.1 A quantified event

The aspectual morpheme *-le* is used with events that can be quantified. In examples (22) and (23), each event is bound by overt phrase that places time constraints on the events.

(22) tā shuì - le sān - ge zhōngtoú[2] (Li & Thompson, 1989:186)
3sg sleep PFV three - CL hour
S/He slept for three hours.

(23) wǒ zaì nali zhù - le liǎng - ge yuè (Li & Thompson, 1989:186)
I at there live PFV two - CL month
I lived there for two months.

However, Li & Thompson also suggest that the use of *-le* in bound events is not definite, but rather relative to the strength of the belief of the speaker that an event should be bound. If the native speaker does not feel strongly about the event, the speaker may choose to omit *-le*, as in sentence (24). In the case of sentence (24), if the speaker believes that the 'sigh' itself is important then the speaker will include

[2] All Mandarin Chinese sentence examples are taken directly from *Mandarin Chinese: A Function Reference Grammar* (Li & Thompson, 1989).

-*le*. However, if the speaker believes the fact that he sighed is more important than the sigh itself, the speaker will not include -*le*.

(24) hūrán zǔfù xū -le yī koǔ qì (Li & Thompson, 1989:192)

suddenly grandfather heave PFV one mouth air

Suddenly grandfather heaved a sigh.

2.2.1.2 A defined or specified event

A specified event is one in which the direct object can be defined at a definite noun phrase. A noun phrase is considered a definite noun phrase when the speaker or writer believes that the subject is known to the reader. This specified event can occur in the form of a name (*Xìnměi*), pronoun *nǐ (you*), genitive modifier *tā dė péngyǒ* (*his/her friend*), demonstrative modifier *nèi běn shū* (*that book*), relative clause modifier *xīn chūbǎn dė zìliào* (newly published figures), and a noun phrase with *ba bă chē* (*ba car*). In examples (25) and (26), because *–le* is used in both of these specific events, it can be assumed that the reader or listener knows *Lin Hui* in sentence (25) and the person selling the car in sentence (26).

(25) wǒ pèng dào le Lín Huì (Li & Thompson, 1989:192)

I bump arrive PFV Lin Hui

I ran into Lin Hui

(26) tā bă chē mài le (Li & Thompson, 1989:194)

3sg BA car sell PFV

S/He sold the car.

2.2.1.3 Inherently bound meanings

Some verbs in Mandarin Chinese contain an inherently bound meaning which requires them to be bound; these are the verbs which the meaning specifies a definitive end point. Such verbs include *sǐ* (*die*) and *wàng* (*forget*). These two words

represent what Li & Thompson call 'an idiosyncrasy of Mandarin Chinese' (Li & Thomspon, 1989:196) because the word not only serves as a verb but also represents a definitive endpoint. Examples (27) and (28) illustrate how these two words are inherently bound and the aspectual morpheme -*le* accompanies them. Example (29) shows that a sentence with *wang* (*forget*) in conjunction with the use of the durative aspectual morpheme -*zhe* is ungrammatical in Mandarin Chinese because it violates the inherently bound meaning within the word.

(27) tā qù - nián sǐ - le (Li & Thompson, 1989:195)

3sg last - year die - PFV

S/He died last year.

(28) wǒ wàng - le tā - de dìzhǐ (Li & Thompson, 1989:196)

I forget - PFV 3sg - GEN address

I forgot his/her address

(29) *tā wàng - zhe tā de Fǎwén [3] (Li & Thompson, 1989:196)

3sg forget – DUR 3sg – GEN French

The only exception to these words with inherently bound meaning occurs when inherently bound words are used in situations that are not connected to reality and contain irrealis verbs (e.g., *want*, *like*, *prefer*). In these cases, the -*le* aspectual morpheme is not required. In sentence (30), the speaker uses the irrealis verb which does not allow for the event to be viewed as a whole and therefore, does not require -*le*.

(30) tā yào sǐ (Li & Thompson, 1989:197)

3sg want die

S/He wanted/wants to die

[3] The asterisk indicates that the sentence is ungrammatical and cannot be translated smoothly.

There are several occasions when -*le* cannot be used to bind events. These instances include stative verbs *xi huan* (*like)* and *xing* (*surname*) and habitual or repeated events, which are signaled with adverbs such as *tian tian* (*every day*) or *ping chang* (*usually*). Events with "potential" forms of resultative verb components *dă bu kāi* (*can not open*), events containing -*guo*, the experiential aspectual morpheme, and negative sentences are not permitted to use the expression –*le*. (Li & Thompson, 1989)

2.2.2 The experiential aspect

The experiential aspect of Mandarin Chinese is represented by the aspectual morpheme -*guo*, which indicates that the speaker experienced something on at least one occasion, normally in the past. This applies to negative statements as well. Example (31) shows that the speaker has had the experience of eating Japanese food at some point assumed to be in the past.

(31) wŏ chī - guo Rìběn fàn (Li & Thompson, 1989:226)

I eat EXP Japan food

I have eaten Japanese food before.

The experiential aspect does not focus on the idea that an event has taken place but rather it emphasizes that it has occurred at least once, hence experienced. The following two examples can provide the clearest differences between -*le* and -*guo*.

(32) tā dédào -le yì -ge hépíng jiăngjīn (Li & Thompson, 1989:227)

3sg obtain PFV one CL peace prize

S/He won a peace prize

(33) tā dédào guo yì -ge hépíng jiăngjīn (Li & Thompson, 1989:227)

3sg obtain EXP one CL peace prize

S/He had the experience of wining a peace prize

In example (32), the aspectual morphemes -*le* focuses on the meaning of the whole event and emphasizes on the event that happened. This aspectual morpheme also allows for it to be inferred to have occurred in the past. Example (33) with -*guo* emphasizes that a person has had the experience, meaning that the experience is more important than the event that occurred.

2.2.3 The durative aspects

The durative aspect of Mandarin Chinese is signified by markers that emphasize the "ongoingness" of an event. The durative aspect in Mandarin Chinese is marked with -*zài* and -*zhe*. The durative markers -*zài* and -*zhe* are used with activity verbs such and *pǎo* (run) and *dǎ* (hit), and also extend to other verbs such as, *xīnshǎng* (appreciate), *kàn* (read, look at), and *yánjiū* (research). These activity verbs are distinguishable from stative verbs such as *pàng* (fat), *shōudàu* (receive), and *tīng-shuō* (hear-say) as these verbs do not involve the subject to actively participant. Example (34) demonstrates that while shōudào (receive) is an action verb, the subject, Zhangsan, does not do the action but is a receiver of the action.

(34) Zhāngsān shōudào -le yi fēng xìn. (Li & Thompson, 1989:215)

Zhangsan receive PFV one CL letter

Zhangsan received a letter.

2.2.3.1 The durative aspectual marker -zài

According to Li & Thompson, several rules apply to durative aspectual morphemes like -*zài* and -*zhe*. The first is that -*zài* is only allowed to be used in conjunction with an activity verb. Examples (35) and (36) illustrate the placement of -*zài* before the activity verb. In contrast, examples (37) and (38) show that stative verbs and verbs that express states are ungrammatical when -*zài* is present in the sentence.

(35) Zhāngsān zài dǎ Lǐsì. (Li & Thompson, 1989:218)

Zhangsan DUR hit Lisi

Zhangsan is hitting Lisi.

(36) wǒ zài xīnshǎng Běiduōfēn -de yīnyuè. (Li & Thompson, 1989:218)

I DUR appreciate Beethoven ASSOC music.

I am appreciating the music of Beethoven.

(37) *tā zài pàng. (Li & Thompson, 1989:218)

3sg DUR fat

(38) *wǒ zài zhīdào nèi jiàn shì. (Li & Thompson, 1989:219)

I DUR know that CL matter

2.2.3.2 The durative aspectual marker -zhe

Verbs associated with posture receive the marker *-zhe*, verbs such as *zuò* (sit), *zhàn* (stand), and *tīng* (stop) are some examples. The placement of *-zhe* behind the posture verb creates a durative event indication that this represents an ongoing event.

(39) tā zài fángzi -lǐ zuò -zhe. (Li & Thompson, 1989:219)

3sg at house in sit DUR

S/He is sitting in the house.

(40) wǒ zài qiáng-shang zhàn -zhe. (Li & Thompson, 1989:219)

I at wall-on stand-DUR

I am standing on the wall.

An activity verb that signals a state associated with the activity with its meaning takes *-zhe* as the durative aspect marker. This is the stative usage of activity verbs. Example (41) shows that an activity verb, *xiě* (write), while not an action in this sentence, still signals a state associated with the activity of writing, and can have *-zhe* as the durative aspect marker.

(41) zài mén -kǒu-de bōli shang xiě zhe sì ge zì. (Li & Thompson, 1989:221)

At door mouth ASSOC glass on write DUR four CL character

On the glass in the doorway are written four characters.

"The durative aspect marker *-zhe* can be used in the first of two clauses to signal that one event provides a durative background for another event" (Li & Thompson, 1989:223). This means that two events are occurring simultaneously with the durative *-zhe* creating an active background for the primary event of the sentence. Sentences (42) and (43) are examples of this. The dog that ran away and the girl that returned home are the primary events, but the background events that provide more information about the events are and must be active.

(42) xiǎo gǒu yáo -zhe wěiba pǎo -le. (Li & Thompson, 1989:223)

Small dog shake -DUR tail run CRS.

The small dog ran away wagging its tail.

(43) tā kū -zhe pǎo huí jiā qù -le. (Li & Thompson, 1989:223)

3sg cry DUR run return home go CRS

S/He ran home crying.

2.2.3.3 Limitations of the durative aspect

The usage of *-zài* and *-zhe* has its limitations. "In order for an event to be durative, however, it must extend over a certain period of time. Verbs that describe instant actions, non repeatable activities cannot occur as the durative background verb" (Thompson & Li, 1989:214).

(44) *tā sǐ zhe fā shāo. (Li & Thompson, 1989:224)

3sg die DUR put/forth fever

(45) *Xinměi diào –zhe qián shēngqì. (Li & Thompson, 1989:224)

xinmei lose DUR money angry.

2.2.4 Chinese aspects summary

In summary, the perfective aspectual morpheme, -*le*, and durative aspectual morphemes, -*zài*, and -*zhe*, are used in very different manners and are bound by very different rules. The morphemes -*zài* and -*zhe* have a much more limited use in Mandarin Chinese and limitations that serve as very clear boundaries. The experiential aspectual morpheme -*guo* is used to describe past events that have been experienced by individual. This limitation is in this is in stark contrast when compared to the complexity of -*le*. When considering -*le,* one could paraphrase Shakespeare and ask, "To -*le* or not to -*le*, that is the question," because using -*le*, in many circumstances, is completely up to the speaker. While limits do exist, this morpheme can be in many situations in reference to past events. In summary, Chinese aspectual morphemes, even with their limitations, have a specific purpose in Mandarin Chinese.

2.3 Summary of syntactic properties

In concluding the syntactic properties of English inflectional morphemes -*ed* and -*ing* and Chinese aspectual morphemes -*le*, -*guo*, -*zài*, and -*zhe*, a clear difference exists between the two marking systems. In short, it could be said that the languages, English and Chinese, are incongruent on this point. The aspectual morpheme -*le* is not equal to the English past tense (Li & Thompson, 1989), even though there are occasions when they are used in the same manner. In addition to this, the usage of -*le* is more flexible than the usage of -*ed*; the speaker judges as to how or if he or she chooses to use -*le*. The aspectual morphemes -*zài* and -*zhe* and the inflectional morpheme -*ing* are used in a somewhat similar method. However, the morpheme

-*ing*, can be used in a much broader sense when compared to the limited number of situations where -*zài* and -*zhe* can be used. The inflectional morphemes and aspectual morphemes, while displaying some similarities, function in a fundamentally different way. Furthermore, each of the morphemes covered in this chapter, both English and Chinese, are functional and considered to be associated with the critical period according to Tsimpli & Smith (1991). Tsimpli & Smith state that functional categories are believed to be affected by maturational development, critical period. If it is true then the UG lexicon would not be available to learners after the age of puberty; thus not allowing for the parameters of functional categories to be reset and creating a limited time for functional categories to be acquired.

CHAPTER THREE: LITERATURE REVIEW

This chapter reviews the literature concerning Universal Grammar (UG). First, the UG theory is introduced and summarized, and the competing theories introduced in section 3.1. Then, in section 3.1.1, the Full Transfer Full Access (FT/FA) hypothesis is introduced followed by a summary of the studies with this hypothesis as the foundation. Next, in section 3.1.2, the Partial Access to UG hypothesis is introduced and accompanied by studies based on this hypothesis. Additionally, studies regarding inflectional morphemes and morpheme acquisition are described in section 3.2. Finally, the points of importance in this chapter are summarized in section 3.3.

3.1 Competing Universal Grammar based acquisition theories

The Universal Grammar (UG) theory consists of principles and parameters proposed by Chomsky (1965) which describes all natural languages. "This theory assumes that principles and parameters of UG constitute an innately given body of knowledge which constrains first language acquisition" (White, 1989:xi). Both the principles and parameters of UG represent "an innate biologically endowed language faculty" (White, 1998:1). While UG is comprised of principles and parameters, each must be clearly defined. The principles involved in UG are fixed and invariant and are the determiners of the workings and frameworks of all natural languages. This means they are genetically embedded into every child, and that they need not to be learned. The parameters, on the other hand, are the variations, or limited options, which occur in the syntactic properties of different languages or within the varieties of a language, and the parameters of a language must be learned.

While UG was formulated to explain the acquisition of a child's first language acquisition, questions remained regarding UG's relationship with L2 acquisition. The

theoretical question was if UG could explain L1 acquisition, why could it not be used to explain L2 acquisition. Due to the interest in this relationship, research in this area has produced several hypotheses to explain this relationship. Two of the leading hypotheses are the Full Transfer Full Access Hypothesis (FT/FA) and the Partial Access to UG Hypothesis, which will be covered in the following sections.

3.1.1 Full Transfer/Full Access Hypothesis

The Full Transfer Full Access Hypothesis (FT/FA) developed by Schwartz and Sprouse (1996) claims to describe how an L2 learner resets the parameters which are different from the learner's L1. This perspective states that nonnative language acquisition is essentially comprised of the initial L2 condition, the final state of L1, Universal Grammar, and input of the target language (Schwartz, 1998). Schwartz and Sprouse (1996) claim that the "Full Transfer" is the final state of the L1 grammar, minus lexical/morphological items, in the initial L2 state, which is the principles of UG. Following this initial L2 state, change in the parameters will occur based on the target language (TL) input, thus allowing for the parameters of the initial state to be restructured conforming more to the L2 grammar. Although the learner receives L2 input, sometimes this input is not enough and UG will take over. "The course that L2 development takes is determined in part by the initial state, in part by input, in part by the apparatus of UG, and in part by learnability considerations" (Schwartz and Sprouse, 1996:42). The resetting of the parameters is not confined to any specific or even general period of time, meaning that this restructuring could occur quickly or over a lengthy period of time. Figure 3.1 illustrates how the hypothesis works.

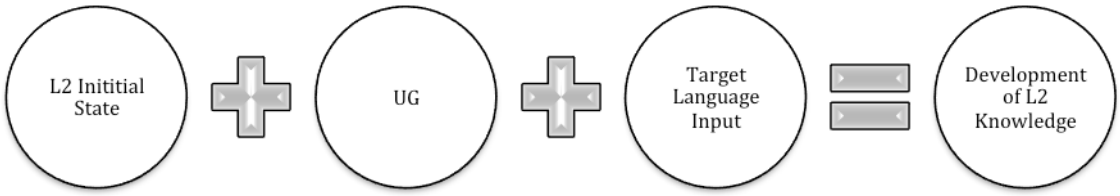


Figure 3.1 Full Transfer Full Access Hypothesis (Schwartz, 1998:134)

Under this equation, the L2 initial state represents the final state of the L1 grammar. However, what is not transferred into the L2 initial state is the L1 phonetic matrices that are related to lexical and morphological items. The development of L2 knowledge is not constrained by any manner of time frame and this development may not be truly comparable to a native speaker's final state if the L2 input fails to trigger parameter resetting.

One of the arguments making the case for FT/FA is the claim that final states of the L2 will not necessarily be equal to the TL because this view adopts the position that the interlanguage cannot be analyzed by comparing it to the TL, but rather it must be analyzed as its own language system. Therefore, the FT/FA hypothesis does not claim that the final state of the L2 will be equivalent to the TL, but it claims that the "constraints on the processes are constant" (Schwartz & Sprouse, 1994:42).

Numerous researchers have a number of hypotheses that work within the FT/FA framework. One of these, which is relevant to the current study, is the Missing Surface Inflection Hypothesis (MSIH) (Goad, White, and Steele, 2003; Haznedar and Schwartz, 1997; Lardiere, 2000) which will be discussed in detail in section 3.1.1.2.

The sections below will briefly review two studies that are based on the FT/FA Hypothesis. These reviews will focus on the learners' background, task design and hypotheses, procedures, and results.

3.1.1.1 Ionin and Wexler (2002)

(1) Background of learners

This two-part study consisted of two groups of L1 Russian children learning L2 English. The participants in the initial part of the study consisted of 20 L1 Russian children who were born in or immigrated to the US or Canada. These children had begun learning English from ages ranging from three years and nine months to thirteen years and ten months and had been exposed to English ranging from less than one year to four years.

The second group of L1 Russian children consisted of 18 participants, twelve of whom participated in the first portion of the study. The children in the section ranged in age from 6-14 years old with only one child having lived in the USA for more than two years.

(2) Task Design and Hypothesis

Ionin and Wexler proposed three hypotheses for this study: 1) "The L2 learners will produce nonfinite forms in place of finite forms; 2) Since the abstract categories and feature-checking mechanisms are in place for L2 learners, there will be little or no incorrect finiteness inflection in the speech of the L2 learners. 3) Tense and agreement will be instantiated through suppletive agreement forms (i.e. the BE copula and auxiliary forms). The L2 learners will, therefore, be more successful in the acquisition of suppletive agreement of affixal agreement" (Ionin & Wexler, 2002:103-104). The researchers propose that L2 English learners will not mark verbs with affixes (*-s, -ed, -ing*) , but will demonstrate tense and agreement through what

they term as suppletives, namely BE copula and auxiliary verbs, which they will acquire before affixal markers.

(3) Procedures

In this study, the initial data collected were speech samples collected from all 20 children on at least one occasion. The speech sample was a conversation between a researcher and the children in which each child talked about their friends and school or described pictures from storybooks with each conversation lasting from thirty to sixty minutes. Eight additional speech samples were collected from 8 children two to five months following the first sample.

The second set of data was collected through a grammaticality judgment test that was devised of 56 items spanning four types of verbs correctly inflected items, nonfinite items, wrongly inflected items, and dropped -*ing* items. Table 3.1 provides example items from the grammaticality judgment test.

Table 3.2 Ionin and Wexler's grammaticality judgment test example items (Ionin & Wexler, 2002:Appendix 3)

Good Inflection items	
Thematic verb	*Auxiliary/copula*
The boy likes cheese	The girl is little
She goes to school every day	The dog is sleeping
Optional infinitive items	
Thematic verb	*Auxiliary/copula*
The boy want the toy	The dog angry
The girl play outside	He jumping on the bed
Bad Grammar items	
Thematic verb	*Auxiliary/copula*
The children likes chocolate	We is sleeping
I goes to the movies every day	The boy are tall
Dropped –ing items.	
The man is sit on the chair	
You are read a book	

This test was administered to each child individually at the child's home or school. It should be noted that the child was not required to read the sentences themselves due to their difficulty reading English, but rather the researcher read the items to the children and had them reply 'yes' if the item was grammatical or 'no' if the item was incorrect and the researcher marked their responses on paper.

(4) Results

Ionin and Wexler drew several conclusions from the results. First, they claimed that the L2 learners' grammar of tense and agreement was unimpaired. Second, universal rules controlled morphological use in child L2 learners. Thirdly, the omission of inflectional morphemes could be due in part to nervousness and pressures involved in the completion of the tasks. Even though the L2 English learners may have omitted inflectional morphemes, very few errors were produced, which lead the researchers to conclude, "features and feature-checking mechanisms underlying finiteness are fully in place" (Ionin and Wexler, 2002:128). Ionin and Wexler's (2002) importance to the study lies in its focus on morphology and learner's access to Universal Grammar.

3.1.1.2 Pervost and White's Study (2000)

(1) Background of learners

The participants in this study were two L1 Arabic learners of L2 French, one L1 Spanish, and one L1 Portuguese learner of L2 German. All of the participants were adults at the beginning of the study and their L2 ability was considered limited when the study began.

(2) Task Design and Hypothesis

The purpose of this study was to used finite form verbs (e.g., we want, she wants, I wanted) and non-finite verbs (e.g., to want, to leave) in order to test the

Missing Surface Inflection Hypothesis (MSIH) Prevost & White (2000) and the Impaired Representation Hypothesis (IRH) Eubanks (1993). Simply stated the MSIH proposes that learners have the knowledge of functional feature related to tense and agreement, but have difficulty realizing the morphology in language production, resorting to non-finite forms. The IRH holds the position that the learners' L2 inflection is impaired in some way regarding features and feature strength. The researchers make two predictions for this study: 1) finite form verbs (e.g. we want, she wants, I wanted) will not be used in non-finite contexts (to leave) but only in finite contexts and will not follow a preposition or auxiliary or modal verb. Therefore, finite form verbs will be placed prior to negation in L2 French and German and will not be placed after negation. The IRH takes no clear position regarding finite verb placement, and finite verbs can be found in raised and unraised position due to the lack of features or feature strength. 2) Because MSIH holds the position that features-checking is present in the L2 grammar, appropriate agreement will be used with the finite form; this position is contrary to the IRH, which predicts agreement mismatches.

(3) Procedures

This was a longitudinal study that lasted three years, the L2 French learners were interviewed for three years and the L2 German learners for just under two years. Each participant was interviewed once a month, with the exception of one L2 French learner who returned to Spain for a period of nine months with the interviews continuing upon her return. The researchers analyzed the interview data and retained "utterances containing a verb and consisting of at least two constituents" (Prevost & White, 2000:112). While the study clearly defined the utterances that will be counted; however, it was unclear how these utterances were scored.

(4) Results

The results of the study seemed to provide support for the MSIH rather than the IRH. The data suggested that the language learners as a whole did not use finite verbs in non-finite contexts providing support for the first prediction. The participants used finite verbs in non-finite context 3.7% of the time. The MSIH position was confirmed with regards to negation, as 381 finite verbs were placed before the negator while only 9 were placed after the negator. The results about verbal agreement differ from the predictions of the IRH, as the current study showed a much higher accuracy rate in verbal inflection. The L2 French learners' overall accuracy was 95.8% and 94.5%, and the L3 German learners' accuracy was 88.1% and 87.8% respectively. When verbal inflection was used, it was used correctly, and when it was not used, the learners used the non-finite forms as a default, which is in line with the claims of the MSIH. In conclusion, the researchers claim that their results provide adequate evidence for the MSIH and that the learners' features-checking mechanism is unimpaired.

3.1.2 Partial Access

The Partial Access to UG Hypothesis is another hypothesis that centers on the relationship between second language acquisition and UG. Tsimpli and Roussou (1991) state that the parameters of UG are related to the UG lexicon and not the UG principles. They "adopt the idea that functional categories form an independent component of UG," the UG lexicon (Tsimpli and Roussou, 1991:151). This is referring to the functional module, which is connected to and potentially restricted by the maturation of the learner, also referred to as the critical period. Researchers taking this view, just like the FT/FA hypothesis, have produced related hypotheses that work within this framework. Failed Functional Feature Hypothesis (Hawkins and

Chan, 1997) and the Interpretability Hypothesis (Tsimpli and Dimitakopoulou, 2006) are two leading examples.

3.1.2.1 Hawkins and Chan's study (1997)

(1) Background of learners

The participants in this study were native Cantonese speaking Chinese learners of English and native speaking French learners of English. Both groups were located in Hong Kong. The Chinese learners were secondary school and undergraduate students while the native French speakers were in a French international school. Both groups had very similar exposure to English in their respective classrooms. The participants were given the Oxford Placement Test and placed into three proficiency groups, elementary, intermediate, and advanced. A group of native English speakers provided the control.

(2) Task Design and Hypothesis

The purpose of this study is to test Tsimpli and Smith's hypothesis (Tsimpli and Smith, 1991) which proposes that while the principles of UG are unaffected by the critical period, particular functional categories, complementizers (for, that if), agreement (person and number features, e.g. *They are playing*. This means that third person plural *they* is in agreement with third person plural *are* (Radford, 2007)), determiners (the, this, that), among possible others are effected by a critical period. The goal was to test this hypothesis on Chinese speakers' use of the Complementizer Phrase (CP). Four research questions were designed for this study (Hawkins and Chan, 1997:200).

> "1. Can Chinese speakers acquire the surface morphophological properties of English CP?

2. Can Chinese speakers acquire the surface pattern of English restrictive relative clauses in cases where gaps are not possible in Chinese?

3. Where Chinese speakers show evidence of a [CP…gap] pattern, is there evidence that this is underlying an [operator…gap] chain (i.e. has the learner activated the functional feature [wh] in C)?

4. Is there evidence that Chinese speakers' mental representations for L2 English are constrained by principles of UG in cases not instantiated in the L1?"

(3) Procedures

All the participants in this study were given a grammaticality judgment test approximately one week following the Oxford Placement test. The grammaticality judgment test consisted of 101 items, 59 of which were of particular concern to the researchers. The participants were asked to do the following tasks: 1) listen to a pre-recorded reading of each sentence, 2) read the sentence, 3) determine if the sentence was correct, and 4) correct the sentence if necessary. The responses of the tests were then marked by the researchers according to their correctness. A clear scoring procedure was adopted for this study. If sentences were presumed correct, the participants received 3 for definitely correct, 2 for probably correct, 1 for probably incorrect, and 0 for definitely incorrect. If sentences were presumed incorrect, the participants received 3 for definitely incorrect, 2 for probably incorrect, 1 for probably correct, and 0 for correct. This scoring procedure serves as the basis for the scoring method of this study. As for the participants' corrections, a single mark was assessed for the correction, while no correction or wrong correction was assessed with no mark.

(4) Results

The result from the CP morphology items indicated that there was a significant difference between the groups, which was not unexpected. While the Chinese learners did not judge the test items as well as the French learners, the researchers pointed out that the Chinese learners began with a lower proficiency level and showed an increasing proficiency between each level of learner. The researchers conclude that Chinese learners are able to learn CP morphology.

With regard to the [CP…gap] properties, significant differences differentiated the Chinese learners from the French learners. Again the Chinese learners exhibit an increasing judgment and correction ability based on language proficiency, indicating that the Chinese learners have made progress in the learning of the surface pattern. Hawkins and Chan concluded that functional categories posed difficulty for the learners. They refer to this difficulty at the 'failed functional features hypothesis' (FFFH). Functional features are language specific and are available during the primary language acquisition period. Furthermore, beyond the critical period, these features are difficult for adult L2 learners to reset. The FFFH proposes that if the functional features of an L1 are alike, adult L2 learners will perform similarly to the native speaker. However, when the functional features differ, the adult L2 learner is unable to reset that parameter.

3.1.2.2 Liszka's Study (2004)

(1) Background of learners

The participants in this study were twelve advanced L2 English speakers with three language backgrounds, Chinese, German, and Japanese who were post-graduate students pursuing their degree at the University of Essex. The participants' proficiency levels and vocabulary ability were determined by the results of the Allen's Oxford Placement Test and Nation's Vocabulary Levels Test.

(2) Task Design and Hypothesis

This study was based on the Relevance Theory, which states "that utterance interpretation is achieved by a process of hypothesis formation and evaluation of sequentially occurring interpretations" (Liska, 2004:214). This means that the listener will sort through and process all stimuli that are believed to be relevant and draw a conclusion that he or she believes to be correct. The researcher proposes two hypotheses based on this theory: 1) if an L2 feature is unable to produce the grammatical form correctly, the pragmatic form will not be communicated in a relevant manner. 2) The L2 speaker, in an effort to achieve optimal relevance, will use non-linguistic resources to produce a similar form of the unavailable L2 feature.

(3) Procedures

In this controlled experiment, the task consisted of a 120-item grammatical judgment test with 54 items requiring the productions of the present perfect (e.g. "have +V-ed/en: I have/she has finished/eaten her meal" (Liska, 2004:216)). Of the verbs used, half were real regular and irregular and the other half consisted of nonsense words. The task was twenty pages in length with each page consisting of six words and definitions that serve as a word bank for the clozed test. Half of the responses were written and the other half spoken and recorded. The occasion in which the present perfect was obligatory was coded for morphology; contexts with verbs used inappropriately were placed aside. Across groups, distributions were determined by calculated percentages and frequency scores were calculated by chi-square tests.

(4) Results

The researcher made several conclusions from this study. The first was that the three L2 English groups did not produce the present perfect forms in a native-like

way with the Germans preferring the preterit (e.g. I/she ate) in instances of non-present use and the Chinese and Japanese alternated their bias between the preterit and present. The results also suggest that L1 influence is problematic for L2 production of the present perfect. With regards to the Relevance Theory, "if an L2 representation does not have a complete native-like linguistic representation for the present perfect, it will not be available at logical form into the inferential stage of processing" (Liska, 2004:228). Therefore the results indicate that the learners were not able to acquire neither the pragmatic portion nor the morphological portion of the present perfect. Liska also proposes that the L2 learners rely on the context to use and interpret the present perfect if the grammatical form is not produced correctly.

3.1.3 Summary of competing Universal Grammar hypotheses

In summary, the focus of this section has been on the two primary hypotheses within the generative linguistic field, Full Transfer Full Access (FT/FA) Hypothesis and Partial Access to UG hypothesis. While both sides present compelling arguments based on the evidence they provide, neither one provides a definitive explanation of L2 language acquisition, and are therefore in a state of evolution based on the newest data. Nevertheless, the studies reviewed above demonstrate the importance of these two hypotheses and the guidance they provide in interpreting data and the creation of hypotheses, which work within these frameworks. In addition to providing the theoretical structure for this thesis, these hypotheses also provide this study with potential explanations for the learners' production. If the FT/FA hypothesis is correct, then there should be differences between each experimental group, and no difference between the advanced group and the control group. On the other hand, if the Partial Access to UG hypothesis is correct, then a difference should be found between every group including the advanced and the control group.

3.2 Inflectional morpheme acquisition

In this section, several study regarding the acquisition of inflectional morphemes are reviewed. First, the initial studies into morpheme acquisition are introduced followed by the initial studies into L2 acquisition of inflectional morphemes. Then, Johnson and Newport's study (1991), which is of particular interest to this study because of its relationship to the Partial Access to UG hypothesis, is discussed. The final two studies discussed combine the study of inflectional morphemes and the FT/FA hypothesis and the Partial Access to UG Hypothesis, and serve as a platform for this study.

English morphemes acquisition has been of interest to researchers since the early 1970s beginning with Brown (1973) and Villiers & Villiers' (1973) of native English speakers. These studies were conducted in order to determine if there is an order of acquisition for English morphemes by L1 English children. Through the studies in Table 3.2, it was determined that an order of morpheme acquisition did exist with L1 learners.

Table 3.2 Comparison of Brown and Villiers & Villiers

Morpheme	Brown (1973)	Villiers & Villiers Method I (1973)	Villiers & Villiers Method II (1973)
Present Prog. (-ing)	1	2	4
On	2	2	2
In	2	4	1
Plural (-s, -es)	4	2	3
Irr. Past (sit/sat)	5	5	5
Possessive (-‘s)	6	7	11
Uncontr. Copula (He is tall.)	7	12	10
Articles (a, an, the)	8	6	8
Reg. Past (-ed)	9	10.5	7
3rd person reg. (-s)	10	10.5	12
3rd person irreg. (does, has)	11	8.5	6
Uncontracted aux. (He is running)	12	14	14
Contractible copula (He’s tall)	13	8.5	9
Contractible aux. (He’s running)	14	13	13

Shortly following these studies, researchers extended their investigations of English morpheme acquisition to L2 learners in an attempt to discover similar patterns of acquisition with that of native English speakers (Dulay & Burt, 1975; Krashen, 2002). Dulay & Burt claimed the results of their study demonstrated access to UG in second language acquisition of English morphemes. The study of English morphemes acquisition began with native English speaking children, then proceeded to non-native English speaking children and adults. In Table 3.3, Brown and Dulay & Burt’s overlapping morphemes are examined. While there is no direct correlation between the two orders, Dulay & Burt claimed that “universal cognitive mechanisms are the basis for the child’s organization of a target language, and that it is the L2 system, rather than the L1 system that guides the acquisition process” (Dulay Burt, 1975:52). This means that while the morphemes acquisition order is different on the surface, the acquisition of said morphemes was guided by UG. These studies involving second language learners attempted to determine whether or not an

acquisition order of morphemes existed in the learners' interlanguage, to determine if UG is active during the learners acquisition, and to compare the second language learners' acquisition order to that of native English speakers.

Table 3.3 Comparison of Brown and Dulay & Burt (Lee, 2005:2)

	Brown (1973)	Dulay & Burt (1975)
-ing	1	3
Ir. Past	2	6
Possessive	3	7
Article	4	1
Reg. Past	5	5
3rd person singular	6	8
Copula	7	2
Auxiliary	8	4

Following the English morphemes acquisition studies, interest in the acquisition of English morphemes expanded to investigate the cause(s) of L2 learners' failure to achieve native like production. The Critical Period Hypothesis (CPH) plays a significant role in L2 research into the learning of functional categories; the critical period is considered to be the period from two years of age until puberty after which, a steady decline in language ability occurs (Richards & Schmidt, 2011). Morphemes are considered one of the functional categories.

Some L2 researchers have attempted to use the CPH to explain non-native achievement in L2 acquisition. Research conducted on the CPH has produced results that indicate an apparent cut off age in acquisition of L2 English morphemes of individuals who immigrated to the United States (Birdsong, 2001; Flege, Yeni-Komshian, & Liu, 1999; and Johnson & Newport, 1989; 1991). These studies focused on the age at which the participants arrived in the United States and determined that individuals who arrived in the United States after puberty (roughly 15-16 years old) did not acquire inflectional morphemes to the extent of those who arrived before puberty.

With the shift in interest to explain non-native attainment of L2 inflectional morphemes, a division in opinions became apparent in research, with one side claiming that L2 learners were able to have full access to UG and another side claiming that L2 English learners were impeded in some way and only have partial access to UG (both of these positions were described earlier in the chapter in section 3.1). Two primary hypotheses were developed from these two schools of thought; the FTFA theories produced the Missing Surface Inflection Hypothesis (MSIH) and the Partial Access to UG was associated with the Critical Period Hypothesis (CPH).

Goad et al. (2003) proposed that L2 learners' optional use of inflectional morphemes related to tense and agreement is not caused by a failure to acquire these functional categories, but rather there is difficulty for the learners to realize the L2 inflectional morphology as a result of inability to map the distance between syntax and morphology (Hsieh, 2009; Ionin 2013). The MSIH holds that a disconnect exists between L2 syntax and L2 morphology rather than deficits in L2 syntax. The MSIH proposes two ideas: 1) adult have full access to UG, not limited to the features and parameters of their respective L1s. 2) While the adult learners have competence regarding the functional categories, the implementation of inflectional morphology varies. Several studies have also indicated that the misuse of tense/agreement morphology seldom occurs (Hsieh, 2009; Ionin and Wexler, 2002; Lardiere, 1998; Muftah, Yahya, & Wong, 2011; White, 2003).

The review of the following studies regarding morpheme acquisition begins with an older study of English morphemes by non-native speaking children and then a study concerning the acquisition of English morphemes in relations to the Critical Period Hypothesis. The final two studies touch upon both the MSIH and the FFFH and were conducted with L2 English speaking adult university students.

3.2.1 Dulay and Burt (1974)

(1) Background of learners

The participants in this study consisted of 60 Spanish-speaking and 55 Chinese-speaking children in a public school in New York. This group of participants was divided according to their ages, 38 six-year-olds, 39 seven-year-olds, and 38 eight-year-olds. The learners' language level is unknown.

(2) Task Design and Hypothesis

"If the creative construction process does play a major role in child L2 acquisition, then we should find a common sequence of acquisition of grammatical structures across diverse groups of children of the same language" (Dulay & Burt, 1974:38). This means that the researchers believe a sequence of English morphemes acquisition will appear in the spontaneous language production of L1 Spanish and L1 Chinese speaking children.

(3) Procedures

Data were collected through the use of the Bilingual Syntax Measure (BSM), which contains seven cartoon pictures with an accompanying 33 questions. The BSM elicits 11 English Functors (pronoun case, articles, singular copula, *-ing*, plural, singular auxiliary, past regular, past irregular, long plural, possessive, 3rd person plural). The data were analyzed following Browns two core notions from his study in 1974, the obligatory occasion, and the obligatory occasion scoring. The obligatory occasion references instances when one morpheme creates a situation where other functors are required. For example, in the sentence 'he is running,' the auxiliary *is* creates the occasion when the functor *–ing* must be used. Burt and Dulay point out that the child learners often create these occasions and may not supply the obligatory functor when required. The obligatory occasion scoring was as follows: 0 points for

no functor, 1 point for misformed functor, and 2 points for correct functor. Group scores and group means were calculated.

(4) Results

The results indicated that the sequence of acquisition for the 11 functors were practically the same for the Spanish-speaking and the Chinese-speaking participants. Due to the virtually identical sequence of acquisiton by both groups of learners, evidence exists that a universal sequence for certain structures exists for children exposed to natural L2 speech.

3.2.2 Johnson and Newport (1989)

(1) Background of learners

The participants in this study consisted of 46 native Chinese and Korean speakers who learned English as a second language. Twenty-three of the participants arrived in the US before the age of 15. The other 23 arrived in the US after the age of 17.

(2) Task Design and Hypothesis

Several questions were asked by the researchers in this study: 1) Is there an age-related effect on learning the grammar of a second language? If so what is the nature of this relationship? 2) What is the shape of the function relating age to learning and ultimate performance, and where (if anywhere) does the relationship plateau or decline? 3) Can experimental or attitudinal variables, separately or together, explain the effects obtained for age of learning? 4) What areas of the grammar are the most and least problematic for learners of different age groups?

(3) Procedures

A grammaticality judgement test of spoken English was used as well as an interview. In the grammaticality judgment test, the sentences were in pairs with one

sentence being grammatical and the other not. A recording read each pair of sentences for the participants and the participants would mark the grammatical sentence. This grammatical judgment test consisted of 276 sentences of which 140 were ungrammatical. Johnson and Newport measured syntax and morphology of the partcipants in the study. Twelve rule types were tested: past tense (shoot/shot), plural (pig/pigs), 3rd person singular (foot/feet), present progressive (speak/speaking), determiners (a, an, the), pronominalization (us/we), particle movement (The man gave a toast and said, "Bottoms up."/The man gave a toast and said, "Up bottoms,"), subcategorization (allows/lets), auxiliaries (will be getting/has fallen), yes/no questions (Can she swim?/Can swim she?), wh-questions (What will you do?/What you will do?), and word order (The boy runs./Runs the boy.).

(4) Results

This study concluded that children have an advantage when compared to adults in acquiring a second language as there was a direct relationship between the age and performance of the participants. The results were discussed based on the age of arrival, before and after puberty, and age and formal instruction. The results also showed that age of arrival was a factor in ultimate acquisition of English as participants who arrived in the United States between the ages of 3-7 reached native-speaker-like performance. When the age of arrival was 8-10, 11-15, and 17-39, there was no overlap between these groups or a significant difference between them. When the participants were divided before and after puberty, 3-15 and 17-39, the participants aged 3-15 outperformed the 17-39 group and maintained a small variance. When examining the exposure to English in a formal classroom it was determined that exposure to English in a classroom is not a substitute for immersion in English and that learning that occurs in a classroom different from learning that occurs during

immersion. Therefore, early classroom exposure is not a guarantee of ultimate attainment. In all, the results show that the age of arrival before puberty greatly effects the learner's ultimate attainment of English. This study is closely related to the current study as it provide a clear view of how the Partial Access to UG can be used to explain learners' production.

3.2.3 Muftah and Wong's Study (2011)

(1) Background of Learners

The participants of this study were seventy-seven undergraduate ESL learners who were in the science and social science colleges of two Yemenese universities. The majority of the learners began learning English at the age of twelve as was required by the schooling system. The learners were placed in three groups (32 lower-intermediate learners, 25 upper-intermediate learners, 20 advanced learners) based upon the results of their performance on the Oxford Placement Test.

(2) Task Design and Hypotheses

Muftah and Wong had three purposes for this study. They desired to ascertain which theoretical view is most appropriate to explain the variation on the verbal inflectional morphemes produced by Arab ESL learners. They also sought to explore the interaction between "syntactic structure and verbal inflectional." They also sought to know whether or not defection morphology is the result of the absence of syntactic representation. The researchers aimed to measure three points: 1) grammatically inflected items, 2) the number of omissions in obligatory contexts, and 3) wrongly inflected verb in non-past contexts.

(3) Procedures

The researchers collected data by way of an oral production task, which was a picture-based test. The learners were shown pictures with a verb located under the

picture to be used in the storytelling. The learners were given a few minutes to view the picture before telling the story. The study did not employ a scoring method like Dulay & Burt (1974) or Hawkins & Chan (1997), but rather chose to use percentages to determine the results. In addition, an L1 English control group was not used in this study.

(4) Results

According to the results of the study, learners did not perform as well as on the *BE* auxiliary constructs as they did on the thematic (e.g. play, laugh, invited, etc.) verb constructions. A difference of performance was noted between the groups with the advanced learners out-performing the upper- and lower-intermediate and the upper-intermediate learners out performing the lower-intermediate learners. However, no significant difference was discovered between the three groups.

The data also indicated that omission was greater for the *BE* auxiliary than for the third person plural *(-s*). Significant differences appeared between all groups with regards to omission with the exception of the omission of inflection on non-past tense verbs by the upper-intermediate and lower-intermediate learners, 33.79% and 25.53% respectively.

Each group appeared to make fewer errors in non-past 3rd person plural agreement than with the non-past auxiliary verbs. Example (1) shows how the learners use the singular BE auxiliary when the plural is required, making the sentence ungrammatical. In the second example, the non-past third person singular morpheme *–s* is used correctly.

(1) *The two boys is playing shy (Muftah & Wong, 2011:99).

(2) He plays football with the neighbors (Muftah & Wong, 2011:100).

As a whole the learners incorrectly used the be auxiliary 43.41% of the time compared to 18.75% when thematic verbs were involved.

The researchers concluded that functional categories are accessible to L2 learners and the learners' inability to produce the necessary overt morphology is a result of a failure to connect the complex surface forms and abstract features. The researchers claimed that the inter-language (IL) syntactic representation can be native-like and the results support the MSIH and advocate the full access to UG view.

3.2.4 Wong's Study (2012)

(1) Background of learners

The participants of the study were 21 L1 Chinese adult speakers and 39 L1 Malay adult speakers learning English as an L2. Participants were divided into two groups, intermediate and advanced, based on the results of the Malaysian University English Test. Within the L1 Chinese group, 12 tested as lower intermediate and 9 tested as higher intermediate. The L1 Malay group consisted of 22 lower intermediate speakers and 17 higher intermediate speakers of L2 English. Although there are two proficiency groups, it can be observed that there was no beginner group taking part in the study.

(2) Task Design and Hypotheses

The purpose of Wong's study was to investigate L1 Malay and L1 Chinese speakers' use of the non-past tense and agreement morphology and in which contexts they have the most difficulty. In addition, the researcher also tested the Failed Functional Features Hypothesis (FFFH) (Hawkins and Chan, 1997). This hypothesis proposes that a critical period affects the language learners' ability to acquire certain features in the functional categories if the same features are not a part of the learners' L1.

(3) Procedures

A grammaticality judgment task comprising of 48 items was adapted from Ionin and Wexler (2002), which tested the learners' English competence of tense and agreement morphology. This task was composed of 16 correctly inflected items and 32 wrongly inflected items. The items included thematic verbs (e.g. write, want, etc.) and copula/auxiliary verbs. Participants were given 30 minutes to determine if the items were grammatical or not and mark the items accordingly. The collected data were calculated and reported in percentage form.

(4) Results

The results indicated that all of the participants performed well in judging the grammaticality of correctly inflected items. That being said the lower intermediate learners did not perform well on the wrongly inflected items. Furthermore, the higher intermediate learners performed better than the lower intermediate learners on the wrongly inflected items; however, they did not perform equally as well as they did on the correctly inflected items. The researcher concluded that due to the lack of some tense and agreement features in the participants' native languages combined with being adults they are unable to reset the parameters as needed, thus confirming the FFFH (Hawkins and Chan, 1997).

3.2.5 Summary of inflectional morpheme acquisition

In summarizing this section concerning morpheme studies, researchers have taken a very intentional, systematic approach. The studies began with L1 English speaking children and then proceeded to L2 English speaking children with various L1 backgrounds. After the studies regarding children, researcher focused on adult L2 English learners. In postulating an explanation for the adult learners difficulty in acquiring morphemes, the researchers mentioned in this chapter relied on the

primarily theories that they believe guide language acquisition, FT/FA and Partial Access to UG, in order to develop hypotheses to explain adult acquisition of inflectional morphemes.

3.3 Summary of the literature review

In conclusion, the systematic approach of the researchers can be clearly seen, even though they may take opposite viewpoints. Building on the theoretical foundation of Universal Grammar, research into child L1 acquisition became the forefront, quickly accompanied by L2 child and adult acquisition. When the divergence between child and adult acquisition became clear, researchers returned to UG and developed hypothesis based on UG. Although these hypotheses are in a seemingly constant state of flux, UG has provided the boundaries by which these hypotheses are modified.

CHAPTER FOUR METHOD

Chapter four is divided into three parts. Section 4.1 describes a pilot study that determined the necessity for the present study. Then, in section 4.2, the specifics of the study are introduced, including the participants, the instruments, the data collection procedure, the methods of data analysis, and the result of the study. The chapter concludes with a summary in 4.3.

4.1 A Pilot Study

A pilot study was first conducted to determine if an educator's perception that *-ed* and *-ing* morphemes possess learnability difficulties for English L2 learners is true. The conventional wisdom among English teachers is that *-ed* and *-ing* are relatively easy to acquire compared to more complex morphemes such as the past perfect continuous (I had been running).

Participants of the pilot study consisted of five L1 Chinese speakers of advanced L2 English (E1) who were university students from a university in central Taiwan. None of the participants had lived in an English speaking country for an extended period of time prior to attending university. In order to ensure that the participants were speakers of advanced L2 English, each participant took the Online Oxford Placement Test (2014) to determine their English level (Table 4.1).

Table 4.1 Online Oxford Placement Test results of the pilot study participants.

	Number	Avg. Results (100=maximum score)
Advanced learners	5	84.80

A control group of five native English speakers (N1) also participated in this pilot study. All participants were given the GJT and were instructed to correct anything they believed to be a mistake. They were also told that this was not a vocabulary test and that the focus was on grammar. Individual results of a grammaticality judgment test (see APPENDIX ONE for sample sentences) were calculated and group results

presented. Percentages were calculated to determine the grammatical mistakes corrected related to the inflectional morphemes -*ed* and -*ing* (Table 4.2).

Table 4.2 Pilot study results

	Present progressive –ing %	Regular past –ed %
	Avg. Score	Avg. Score
L1 English (N1=5)	91%	89%
L2 English (E1=5)	57%	65%

The results of the pilot study show that the L2 Advanced English learners obtained an average correct score of 57% on the items involving the progressive morpheme -*ing* and an average correct score of 65% on the items with the regular past morpheme -*ed*. In regards to the -*ing* morpheme, the native speaker control group obtained an average score of 91% on the item pertaining to the progressive morpheme and an average score of 89% on items regarding the regular past morpheme.

Because the results of the pilot study did not provide definitive evidence for one hypothesis or the other, namely the FT/FA Hypothesis and the Partial Access to UG Hypothesis although it is evident that a native and non-native divergence existed, a larger scale study is necessary to confirm the results, and to test the predictions of the two competing hypothesis. The pilot study also allowed the researcher to discover problematic items and make the necessary adjustments. These adjustments were based upon the native speakers' performance. The examples below, examples (1) and (2), illustrate that if the wording of the sentence is too convoluted and requires that it be rewritten completely, it is not appropriate and must be changed. Example (1) is the original sentence, and it was determined that the use of the word 'drive' twice in the sentence resulted in the sentence being completely rewritten, resulting in Example (2). This was the only change made from the grammatical judgment test given in the pilot study and the actual study.

(1) He is **driving** his car and **listening** to loud music while he drives around town.

(2) He is **driving** his car and **listening** to loud music while he goes around town.

4.2 The Study

4.2.1 The Participants

The experimental participants of this study consisted of 60 L1 Chinese university students from a university in central Taiwan. None of the participants lived in an English speaking country for an extended period of time prior to attending university. A group of 12 native speakers of English were invited to take part in the study. These experimental participants were placed into three groups, beginner, intermediate, and advanced, based on the results of the Oxford Online Placement Test (OOPT) (2014). The participants' age and OOPT scores can be seen in Table 4.3.

Table 4.3 Participant background information

	N	Avg. Age	OOPT	Std. Deviation
Beginner (G1)	20	25.6	18.8	12.62
Intermediate (G2)	20	20.4	64.4	11.62
Advanced (G3)	20	20.5	91.4	6.79
Native Control (N)	12		-	-

While it was assumed that a significant number of the participants were exposed to English in elementary school to various degrees, years of studying English was not considered to be an accurate measure of a learners' proficiency; hence, a proficiency test was needed. In order to accurately determine the English levels of all those who participated in this study, the researcher administered the Oxford Online Placement Test, which is the digitalized version of the Oxford Placement Test (Allen, 1992). This test consisted of two parts made of English language use and listening. The language use portion contained approximately 45 items, but varied according to

participant because according to Oxford University Press (2014) the test was adaptive. The listening section of the test was made up of 15 items and was also adaptive.

4.2.2 Measurements, variables, and instruments

The study seeks to measure the participants' competence regarding the English inflectional morphemes *-ing* and *-ed* through a grammatical judgment test. The test items were adapted from Azar (1989 & 2004) and Hewings (2001). Other sentences were created by the researcher following the sentence structures of Azar (1989 & 2004) and Hewings (2001). A sixty-seven sentence grammatical judgment test (see APPENDIX ONE and APPENDIX TWO) was given to the participants to test their grammatical competence regarding the inflectional morphemes *–ing* and *–ed*. On the test, the participants were asked to identify and correct the mistakes in the sentences. There were 31 items regarding the morpheme *–ing* errors and another 31 items regarding *-ed* errors. Several distractors, both grammatical and ungrammatical, were also included as can be seen in Table 4.4. All of the sentences were randomized.

Table 4.4 Distribution of inflectional morphemes (*-ing* & *-ed*) and distractors

-ing morpheme	31
-ed regular past	31
article	19
subject	14
Auxiliary be	7
Copula be	5
Irregular past	3
object	2
TOTAL	112

4.2.3 Data collection procedures

The grammatical judgment test (GJT) was administered in a similar manner as the placement test in a classroom to three groups of learners. The students were asked to read the randomized sentences and make any corrections they deemed necessary. They were instructed that the test was not about vocabulary and that the researcher would assist them in understanding any vocabulary they were unfamiliar with. The 12 native speakers of English took the same test separately. All participants were given a time limit of 50 minutes to complete the test, and all participants completed the test in the given time.

4.2.4 Data analysis procedures

After collecting the GJT, each relevant item was checked by the researcher to see if it was accurately corrected. Additionally, each GJT with the researcher's markings was checked by a native English speaking teacher to ensure accuracy in marking. No major conflict was found. Points were assigned as follows: an

uncorrected or wrongly corrected item was given zero points (examples 1 through 4). One point was awarded for each corrected item (examples 5 through 8).

For example:

Original sentence: They are watch TV in the living room.

0 Points:

(1) They are watch TV in the living room. (no correction)

(2) They are watched TV in the living room. (wrong correction)

(3) They were watched TV in the living room. (wrong correction)

(4) They watches TV in the living room. (wrong correction)

1 Point:

(5) They are watching TV in the living room.

(6) They were watching TV in the living room.

(7) They watched TV in the living room.

(8) They watch TV in the living room.

Group means were calculated for responses to the sentences. Statistical analyses (SPSS) were performed on corrections. To answer the two research questions regarding the three proficiency groups correction of *-ed* and *-ing* related items, one-way ANOVA was run to compare the means of each group; post hoc tests were used to establish where significant differences, if any, are to be found between the four groups. Research question two was answered by the results of a tally, which was constructed after an item by item review, to discover if there is a divergence in the use of the inflectional morphemes *-ed* and *-ing*.

4.2.5 Results of the current study

The data from the results of the GJT were analyzed with descriptive statistics with the results in Table 4.5.

Table 4.5 Descriptive statistics of morpheme use

	Progressive *-ing* accuracy rate (%)	Past *-ed* accuracy rate(%)
	Score	Score
Beginner (n=20)	21%	19%
Intermediate (n=20)	70%	75%
Advanced (n=20)	90%	93%
Control (n=12)	99%	98%

4.2.5.1 Results of progressive *-ing* morpheme use

After the descriptive statistics were run, one-way ANOVA and Tukey post hoc were run to determine the statistical significance, if any, exists between the four groups. A one-way ANOVA and post hoc was conducted to compare the means between each of the groups regarding the *-ing* morpheme. A statistically significant difference between each group was found in the use of the *-ing* morpheme [F(3,68)= 72.938, p=.05], except between the advance and control groups.

Table 4.6 One-way ANOVA results of morpheme *-ing* use

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6357.258	3	2119.086	72.938	.000
Within Groups	1975.617	68	29.053		
Total	8332.875	71			

Post hoc comparisons using the Tukey HSD test indicated significant differences between the beginner group (M=6.40, SD=7.97) and all other groups as well as the intermediate group (M=21.80, SD 6.03) and all other groups. However, no significant difference was found between the performance of the advanced group (M=2.95, SD=1.93), and the control group (M=30.67, SD=0.65), as indicated in Table 4.6 above. Results of morpheme *-ing* use are shown in Table 4.7.

Table 4.7 One-way ANOVA post hoc results of morpheme use *-ing*

(I) GROUP	(J) GROUP	Mean Difference	Std. Error	Sig.
Beginner	Intermediate	-15.40000*	1.70450	.000
	Advanced	-21.55000*	1.70450	.000
	Control	-24.26667*	1.96819	.000
Intermediate	Beginner	15.40000*	1.70450	.000
	Advanced	-6.15000*	1.70450	.003
	Control	-8.86667*	1.96819	.000
Advanced	Beginner	21.55000*	1.70450	.000
	Intermediate	6.15000*	1.70450	.003
	Control	-2.71667	1.96819	.516
Control	Beginner	24.26667*	1.96819	.000
	Intermediate	8.86667*	1.96819	.000
	Advanced	2.71667	1.96819	.516

*. The mean difference is significant at the .05 level.

4.2.5.2 Results of past *-ed* morpheme use

In the same way as the *-ing* morpheme, a one-way ANOVA and post hoc was run on the use of the *-ed* morpheme. A statistical significant difference between each groups use of the *-ing* morpheme [F(3,68)= 57.922, p=.05] was indicated, except between the advanced and the control groups, as shown in Table 4.8.

Table 4.8 One-way ANOVA results of morpheme use *–ed*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6791.044	3	2263.681	57.922	.000
Within Groups	2657.567	68	39.082		
Total	9448.611	71			

Post hoc comparisons of the use of the morpheme *-ed* with the Tukey HSD test produced identical results as the previous post hoc test. Significant differences exist between the beginner group (M=5.95, SD=7.96) and all other groups and the intermediate group (M=22.25, SD=8.47) and all other groups. No significant differences were discovered between the performance of the advanced group (M=28.70, SD=2.05) and the control group (M=30.33, SD=0.78). Results of morpheme *-ed* use are shown in Table 4.9.

Table 4.9 One-way ANOVA post hoc results of morpheme -*ed* use

(I) GROUP	(J) GROUP	Mean Difference	Std. Error	Sig.
Beginner	Intermediate	-16.30000*	1.97691	.000
	Advanced	-22.75000*	1.97691	.000
	Control	-24.38333*	2.28274	.000
Intermediate	Beginner	-16.30000*	1.97691	.000
	Advanced	-6.45000*	1.97691	.009
	Control	-8.08333*	2.28274	.004
Advanced	Beginner	22.75000*	1.97691	.000
	Intermediate	6.45000*	1.97691	.009
	Control	-1.63333	2.28274	.891
Control	Beginner	24.38333*	2.28274	.000
	Intermediate	8.08333*	2.28274	.004
	Advanced	1.63333	2.28274	.891

*. The mean difference is significant at the .05 level.

4.2.5.3 Results of within groups

In addition to the statistical analysis between groups, a within groups analysis was also conducted to explore the possibility that a significant difference might exist in the learning of -*ing* and -*ed* within each individual group.

There was no significant difference in the results for -ed morpheme (M=5.95, SD=7.96) and the -*ing* morpheme (M=6.40. SD=7.98) in the beginning group; [t(19)=-.421, p=0.05]. This means that no statistical significance exists in the learning of the -*ed* and -*ing* morpheme in the beginning learner group; they have learned each of these morphemes at a similar rate; there is no preference in the order of acquisition.

While the scores were significantly higher than the beginning group, there were no significant differences in the results between the -*ed* morpheme (M=22.25, SD=8.49) and the -*ing* morpheme (M=21.80, SD=6.03) in the intermediate group; [t(19)=.401, p=0.05]. The results were the same as the beginning group and that is the intermediate group performed equally well on both the -*ing* and -*ed* morphemes.

Similar to the beginner and intermediate groups, there was no significant difference in the results between the -*ed* morpheme (M=28.70, SD=2.05) and the -*ing*

morpheme (M=27.95, SD=1.93) in the advanced group; t(19)=1.46, p=0.05. Again the results of the advanced group were the same as the other two groups, the advanced group performed equally well on the -*ing* and -*ed* morphemes.

4.3 Summary of the chapter

In Summary, the pilot study did not provide definitive data regarding the acquisition of the morphemes -*ed* and -*ing* and that a larger study was needed. Participants were found, tested, and placed in their appropriate groups in the main study. The instrument and data analysis procedures were described in this chapter. Finally the results of the main study were presented. These results indicated that a significant difference was found between each group on -*ed* and -*ing* with the exception of the performance of the advanced and control groups. A within group analysis also indicated that each group performed in an equal manner on both the -*ed* and -*ing* morphemes. These results will be further discussed in chapter five.

CHAPTER FIVE THE DISCUSSION

Chapter five is divided into four sections. First, Section 5.1 briefly reviews the two research questions of this study and the two competing theories in addition to providing a summary of the results. Section 5.2 answers the first research question about the difference in the acquisition of *-ed* and *-ing* between and within the three proficiency groups in comparison to the control group. Then, Section 5.3 discusses the second research question concerning the two competing theories to explain the divergence or lack of a divergence between the advance learners and the control group. Section 5.4 is a summary of this chapter.

5.1 Review of research questions and study results

This study is testing two of the leading UG based second language acquisition hypotheses, the Full Transfer/Full Access Hypothesis (FT/FA) (Sprouse and Schwartz, 1996) and the Partial Access to UG Hypothesis (Tsimipli and Smith, 1991). The Full Transfer/Full Access (FT/FA) holds the position that a learner's L1 grammar is transferred to the L2 that he/she is learning and the learner is able to reset the parameters of the L1 grammar to the parameters of the newly acquired L2 based on the input from the target language. On the other hand, the Partial Access to UG postulates that learners may be able to reset some parameters; however, some functional features like inflectional morphemes remain unattainable due to the critical period.

The purpose of this study is to explore which of these two UG-based theories, the FT/FA Hypothesis or the Partial Access to UG Hypothesis, can better explain adult L2 English learners' acquisition of the inflectional morphemes *-ing* and *-ed* and if a divergence exists between the L1 Chinese speakers of advanced L2 English and the

control group of native English speakers. In order to achieve this purpose, two research questions were posed:

1. Is there a difference between three experimental groups of adult L1 Chinese speakers of L2 English (elementary, intermediate, and advanced) and a control group of L1 English speakers' acquisition of the inflectional morphemes -*ed* and -*ing*?
2. Which theory, the FT/FA hypothesis or the Partial Access to UG hypothesis, better explains the native non-native divergence on the use of inflectional morphemes -*ed* and -*ing*?

These two research questions are discussed in the following sections.

5.2 Differences between groups

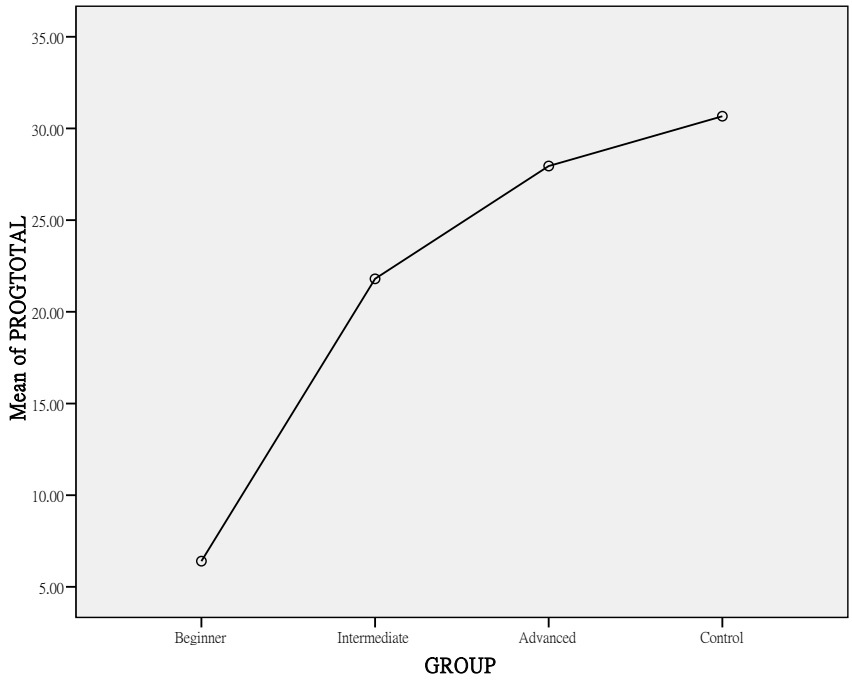
This section discusses the first research question: Is there a difference between three experimental groups (elementary, intermediate, and advanced) and a control group of L1 English speakers' acquisition of the inflectional morphemes -*ed* and -*ing*? In discussing the answers to this question, section 5.2.1 focuses on the differences between groups regarding the inflectional morpheme -*ing* and section 5.2.2 focuses on the differences between groups regarding the inflectional morpheme -*ed*.

5.2.1 The use of the morpheme -*ing* between experimental groups

When comparing the means of the four groups, the results, as previously reported, showed significant difference between each group with the exception being the performance differences between the advanced group and the control group. The use of the morpheme -*ing* by all the groups produced interesting points of discussion. Two points of discussion related to research question one are 1) proficiency related progression and 2) the dramatic improvement from the beginner to the intermediate group.

Examination of the data shows that the performance of each group steadily improved from one proficiency group to another. Chart 5.1 indicates a clear progression of each groups' performance with the slope progressively climbing.

Figure 5.1 Morpheme *-ing* progression



While the performance of each group improved based on proficiency, it needs to be noted that the intermediate group's performance was not always consistent with the performance of the control group. The following discussion of the example sentences focuses on the performance of the intermediate group; the advanced group will be discussed in section 5.3. Examples 1 and 2 provide an illustration of this inconsistency. Below 1a and 2a are the original sentences in the grammatical judgment test (GJT). In example 1b, 16 of the 20 Intermediate learners chose to make this sentence in the present simple tense; they did that by removing 're contraction. A single participant used the *was V-ing* structure as in (1c). The remaining participants did not correct the sentence. At the same time, the 12 of the 12 members of the control group chose to add the morpheme *-ing* to 'watch' to correct the sentence (1d).

(1) a. We're usually watch the news on TV at 9:00.

b. We usually watch the news on TV at 9:00.

c. We were usually watching the news on TV at 9:00.

d. We're usually watching the news on TV at 9:00.

In this instance, there is a large gap in the intuitions of the intermediate learners and the control. A strikingly similar occurrence can be seen in example 2b and 2c. In this case, 13 of the 20 intermediate learners chose to make the sentences present simple by dropping the contraction "'re" (2b). The remaining seven participants did not correct this sentence. In contrast, all 12 in the control group choose to attach *-ing* in their correction (2c).

(2) a. You're always **complain** about my handwriting.

b. You always **complain** about my handwriting.

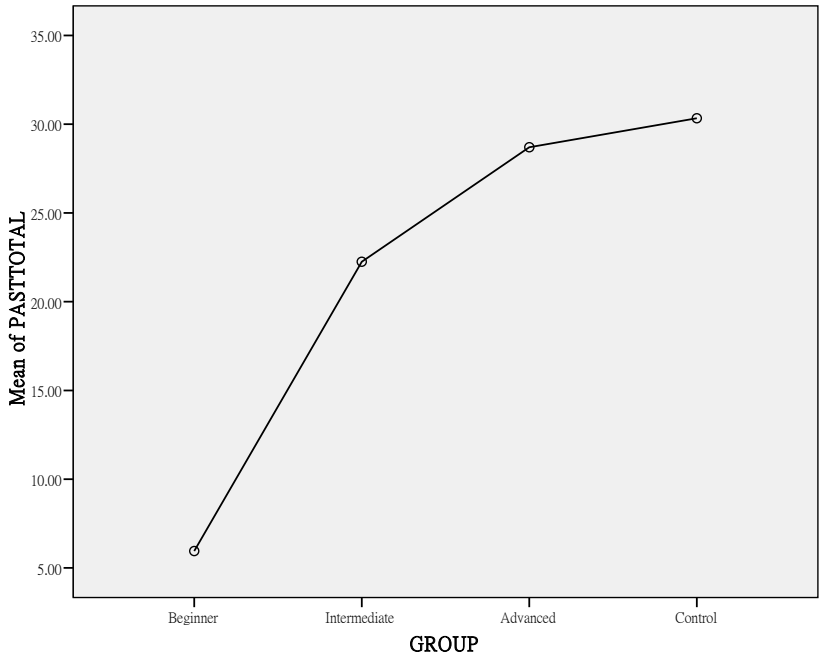
c. You're always **complaining** about my handwriting.

These two sentences serve as clear picture that surface level performance is not always equal to the underlying linguistic competence of the native speakers. While 13 of the 20 intermediate participants were able to use the target language correctly, there was not a single participant that made the correction like the control group. The reason for this type of production may be due to the inability of the learners to reset the parameters regarding the morpheme *-ing*. The lack of resetting the parameter could be due to insufficient target language input, or the maturation of the learner and L1 influence.

5.2.2. The use of the morpheme -*ed* between the experimental groups

The findings of a proficiency based improvement is not only limited to the morpheme -*ing*; it also extends to the morpheme -*ed*. Chart 5.2 illustrates how this improvement occurs. This improvement is strikingly similar to the chart for the morpheme -*ing* with a great improvement between the beginner and intermediate groups.

Figure 5.2 Morpheme -*ed* progression



The performance of the intermediate group on the morpheme -*ed* closely mirrors the performance on the morpheme -*ing*. In the same way, there is an intuition difference between the intermediate group and the control goup; the example sentence below show this difference. Example 3a is the original sentence. Examples 3b and 3c show what corrections they chose; 6 of the 20 intermediate learners chose the morpheme -*s* (3b) and another 6 of the 20 intermediate learners chose 'has,'(3c) and the morpheme -*ed*. The other eight participants did not correct the sentence. At the same time, 11 of the 12 control group members chose to add the morpheme -*ed* only

(3d). In the examples below, the same rationale as the previous examples may be used to explain the interlanguage production.

(3) a. She **talk** on the phone about their vacation plans for more than an hour.

b. She **talks** on the phone about their vacation plans for more than an hour.

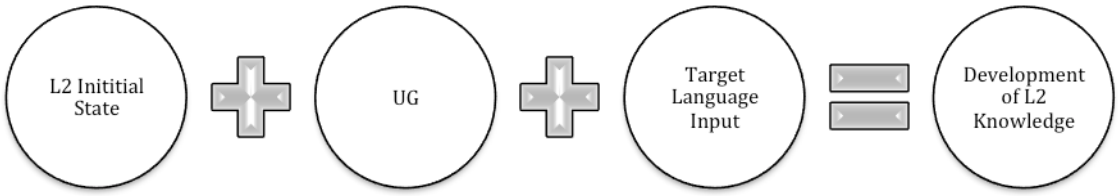
c. She **has talked** on the phone about their vacation plans for more than an hour.

d. She **talked** on the phone about their vacation plans for more than an hour.

Another point to be observed in the dramatic increase between the performance of the beginner and intermediate groups exists in both the morpheme -*ing* and morpheme -*ed*. The beginner group was only able to correct 21% of the items with the morpheme -ing compared with 70% of the intermediate group, a difference of 49%. The difference between the intermediate and advance was 20%. Similar number were observed with the morpheme -*ed*, 19% for the beginner and 75% for the intermediate. This was a difference of 56%; the difference between the intermediate and the advanced group was only 18% by comparison. The difference between the beginner groups and the intermediate group is more that twice the difference between the intermediate and the advanced group.

Sprouse and Schwartz's (1998) FT/FA hypothesis provides insight and an explanation for this phenomenon. The FT/FA states that the initial state of the state of the L2 grammar is the final state of the L1 grammar. This initial state is then being affected by target language input resulting in the final state of the L2. Chart 5.3 illustrates this.

Figure 5.3 FT/FA hypothesis



While both the Chinese and English language use morphemes, these morphemes are dramatically different ways as seen in Chapter Two. When an L1 Chinese speaker of L2 English begins his/her study of English, the learner would be expected to perform poorly on the GJT because of the transfer of the Chinese grammar. The FT/FA hypothesis explains not only the beginning poor performance but also the dramatic improvement of the intermediate group. The input of the target language had been sufficient to cause such drastic improvement. This explanation can apply to both the morpheme -*ing* and morpheme -*ed*.

5.2.3 Summary

To conclude the discussion of question one, there is a significance difference between the beginning, intermediate, and advanced regarding the morpheme -*ed* and morpheme -*ing* with the differences based on the proficiency of each group. However, upon a closer examination of the data, it was determined that the intuitions of the intermediate learners were overall inconsistent with those of the control group; suggesting that performance is not equal to intuition. The second part of the question asks which of the two hypotheses can better explain the differences between groups and the dramatic improvement between the beginner and intermediate groups.

5.3 The differences between the advanced and control groups

The second research question focuses on difference between the advanced and the native control group. The question specifically states to explain the divergence between the advanced and native control.

5.3.1 Native-like performance

The results of the study indicate that there is no significant difference between the advanced and control groups regarding the morphemes *-ing* and *-ed*. The advanced group obtained an accuracy rate of 90%, and the control group reached 99% on the morpheme *-ing* items. On the morpheme -ed items, the advanced scored 93% and the control group 98%. The advanced group displays native-like performance on the GJT. These results, the FT/FA hypothesis can provide an adequate explanation because the hypothesis holds that the final state of the L2 can be the same or similar to a native speaker's grammar.

5.3.2 Native linguistic competence

While the performance of the advanced group and the native control can be explained by the FT/FA hypothesis, the individual responses of the participants vary from learner to learner and these responses also differ greatly from the native speakers' responses.

5.3.2.1 The morpheme *-ing* between the advanced group and the control group

A closer examination of the data revealed that while the performance of the advanced group was not significantly different from the native speaking control group, the intuition of the morpheme *-ing* was not the same as the native speakers'. In many cases the advanced learned corrected sentences without using the morpheme *-ing* and varied from the native speakers' preference. Examples 4 and 5 illustrate this.

Example 4a is the original sentences in the GJT. Example 4b is the correction made by the advanced learners; 16 of the 20 learners corrected the sentence in this way. In contrast all 12 of the native speaking control corrected the sentence with the morpheme *-ing*.

(4) a. We're usually watch the news on TV at 9:00.

b. We usually watch the news on TV at 9:00. (16)

c. We're usually watching the news on TV at 9:00. (12)

Example 5a is the original sentence. The advanced learners were split in their choice of corrections; 8 of the 20 learners chose to use the morpheme *-s* to correct this sentence and 6 of 20 chose a past tense morpheme. The native control group was not as divided; eleven native speakers chose to add the morpheme *-ing* to correct the sentence.

(5) a. Today he is **drive** to a small town just north of the city.

b. Today he **drives** to a small town just north of the city. (8)

c. Today he **drove** to a small town just north of the city. (6)

d. Today he is **driving** to a small town just north of the city. (11)

These are two clear examples that indicate the differences between the two groups' intuitions. The control group provides the standard for the target language, and the advanced group's performance was not significantly different from the control group's. However, the native control group's linguistic competence provides an example of the target language production, and the advanced learner's production is inconsistent with native speakers' use. Though this is not the primary focus of this study, the finding of a varying use of the target language between the advanced and control group lend support to the Partial Access to UG, which argues for inaccessibility of parameters in adult L2 learners' grammars.

5.3.2.2 The morpheme -*ed* between the advanced group and the control group

Having just looked at the differences between the advanced learners' use of the morpheme -*ing* and the native control group's, the next step is to compare the use of the morpheme -*ed* by the two groups. Example sentences 6 and 7 below explore the use of-*ed* by the two groups in question.

Example 6a is the original sentences from the GJT, example 6b is the correction made by 8 of the 20 advanced learners, and example 6c is the correction made by all 12 participants in the native control group. Only one participant was able to match the native speakers', and the other 11 participants were unable to correct this item. In the examples below, it is clear that the native control group is in complete agreement on the use of the target language, and the advanced group performed very differently from the control group.

(6) a. The boy **attempt** to climb the tree during his lunch break.

b. The boy **attempts** to climb the tree during his lunch break.

c. The boy **attempted** to climb the tree during his lunch break.

The examples below also show the differences in the use of the morpheme -*ed* between the two groups. The advanced group produced two difference responses; 13 of the 20 learners chose to use the morpheme -*s* in example 7b, and a single learner chose to use the *is* V-*ing* structure in example 7c. Six of the participants in the advanced group used the morpheme -ed to correct the error. In the native control production, a complete agreement is not found; however, 10 of the 12 participants chose to use the morpheme -*ed* (7d). The other two in the control group used the morpheme -s. Even without a complete consensus being found in the native control

group, there is a difference in the intuitions of the native control group and the advanced group.

(7) a. The man **attend** school while working at factory.

b. The man **attends** school while working at a factory.

c. The man **is attending** school while working at a factory.

d. The man **attended** school while working at a factory.

The results of the study indicate that there are differences, but not a divergence, between the advanced group of learners and the control group. To say there is a divergence means that both the performance on the GJT and the use of the morphemes *-ing* and *-ed* by the advanced group were both different from the control group. The data analysis indicated that no significant difference existed between the two groups, yet a difference in use did exist. Therefore, being able to claim a divergence is not possible, but a difference in the use of the morphemes *-ing* and *-ed* can be claimed. An important point that can also be made about differences in the use of the morphemes is that the linguistic competence of the control group's can be presented as an explanation for this phenomenon.

5.3.3 Summary of the section

In conclusion, the sections above focused on the differences between the advanced group and the control group and on which hypothesis can better explain the differences. When considering which of the two UG based acquisition hypothesis can better explain this phenomena, the FT/FA hypothesis can explain the lack of significant differences in the performance between the advanced group and the native speaker control group. However, upon further examination of the data, a divergence was seen in the sentence corrections. The advanced group would often correct sentence without the morphemes *-ed* and *-ing*, which are possible. These corrections

differed greatly from the native control group, which by and large had made correction with the morphemes *-ed* and *-ing*. This divergence from native speakers' use appears to be an indicator that a native-like performance may not be interpreted as the underlying grammatical competence of the native speakers', a claim made by the Partial Access to UG Hypothesis.

5.4 Summary of the chapter

While a clearly defined explanation that would prefer one hypothesis over another would be desirable, that is not the case in this study. Both hypotheses can be used to explain the results of the study, depending how the data are viewed. The FT/FA hypothesis can explain the significant differences in the performances of the beginner, intermediate, and advanced groups, and the lack of significant difference between the advanced and control groups. The Partial Access to UG cautions equating apparent native-like performance to target grammatical competence. More research is required before a conclusion can be made.

CHAPTER SIX THE CONCLUSION

Chapter six is divided into four sections. The first section summarizes the results of the study. The limitations of the current study and suggestions for future research are presented in section 6.2. The teaching applications of this study are discussed in section 6.3. Section 6.4 summarizes the chapter.

6.1 Summary of the results of the study

The results of the study concluded that both of the competing theories could be applied. The FT/FA hypothesis could be applied to the increasing performance based on proficiency, the higher proficiency the better the performance. This hypothesis could also explain the lack of significant difference between the advanced and control group performances. At the same time, the Partial Access to UG hypothesis can also be used to explain the difference in the use of the morphemes *-ed* and *-ing* between the advanced group and the native control group. The application of these two hypotheses suggests that there is no single theory that can be applied to all situations at this time, and that understanding and explaining second language acquisition is an on going task.

6.2 Limitations of the study and suggestion for further research

There were several limitations to this study that will be discussed below. These limitations involved the participants and the method. One of the first limitations regarding the participants is the limited size of the groups being study and the limited scope of the study. A much larger and broader scope of learners would be preferable to learners from the same university. Another limitation was the method of data collection. While grammatical judgment tests have been used in many kinds of studies, they rely primarily on reading. A task where participants would need to write a response might provide slightly different data samples. A spontaneous speech

sample would provide more insight into the learners' competence. Some items regarding the morpheme *-ing* can be considered to be future in nature and could possibly skew the results; this is also a limitation of the study. An additional limitation is the limited scope of the inflectional morphemes used in the study. This study was limited to two inflectional morphemes; an inflectional morpheme like plural *–s* or even including all inflectional morphemes would provide a more complete view of a learner's competence.

Several suggestions can be made for future research regarding this study and inflectional morphemes. First, this study could be duplicated for the purpose of confirming the results or to refute the results. Another study could be conducted to investigate spontaneous spoken production, which would provide another perspective into the learners' interlanguage. An additional study that could provide interesting results would be to duplicate or modify Brown's study of all 13 inflectional morphemes. These could be further areas of research as a follow up.

6.3 Pedagogical Implications

Several pedagogical implications can be made from this study even with the limitations. First, even though the advanced learners performed near the same level as the control group, they did not produce morphemes *-ed* and *-ing* with native-like competence. If this difference is attributed to the Critical Period Hypothesis, then the learners need adequate target language input prior to the critical period. In other words, learners need morpheme input starting in childhood, and according to Johnson and Newport (1989, 1991) and Birdsong and Molis (2001), the earlier a child is exposed to the target language, the better the child acquires the target language forms.

One way the emphasis on morpheme can be applied to teaching is to place an emphasis on these morphemes while teaching and in classroom activities. This could

be done through a variety of teaching activities and techniques. One type of activity that has been used is to illicit morpheme production through picture and video clip based storytelling. Researchers from both teaching and research perspectives have used picture and video based storytelling to illicit production of morphemes *-ed* and *-ing* in both written and spoken forms. During the picture or video storytelling, teachers have also used corrective feedback during the student production. The effectiveness of corrective feedback and recasts have been explored by several researchers (Adams, Nuevo, & Egi, 2011; Egi, 2010; Ellis & Sheen, 2001; Hassaji, 2009; Loewen & Philips, 2006; Sheen, 2008) in the last ten years and has been determined to be a useful teaching device in the second language classroom. While researchers debate whether or not corrective feedback and recasts are explicit or implicit, the importance of raising the learners' awareness to the grammatical form he/she has used incorrectly is unquestioned.

6.4 Summary

In conclusion, this study proposes that both the FT/FA hypothesis and the Partial Access to UG hypothesis can both explain the results. However, under the surface of the performance of each group, the Partial Access to UG hypothesis seems to be a more viable explanation for the learners' differing intuitions concerning the morphemes *-ed* and *-ing*. The implications of the study are that emphasis would need to be placed on these morphemes to achieve more target language-like productions. For future research, a duplication and/or expansion (to include other inflectional morphemes or other data collecting methods) of this study could be conducted. While the results of this study may seem to favor one hypothesis over another, the evidence is far from conclusive which still allows for growth in the investigation of UG based hypothesis testing the functional categories.

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APPENDIX 1: Grammatical Judgment Test

Grammatical Judgment Test

1. Christy says she is feel better, but I think she still losing weight.
2. As judge announce the winners, the power went out.
3. The man accept his new position because he received pay raise.
4. We're go to do some climbing in mountains.
5. The boy attempt to climb the tree during his lunch break.
6. John trying to book a flight to Japan, but are all full.
7. He's forever ask me for money, and I tired of telling him no.
8. She worry that she weighed too much so started dieting last week.
9. Are you sure he ready to be the leader of the class?
10. He tremble and shivered after walking out in cold without his coat.
11. She very tired from studying all night for her exam.
12. At the moment, he write his homework; when is finished he'll go to bed.
13. The fire fighters rush to the scene and rescue the man trapped in the car.
14. She talk on the phone about their vacation plans for more than an hour.
15. The car isn't start again, so I will take to the shop.
16. She making speech at the conference next week.
17. The army march for six days until they reach their destination.
18. They're constantly throw parties until the early hours of the morning.
19. I'm consider taking my trip earlier than usual.
20. He took the broken table to the shop and the man repair it.
21. The woman report that she saw two men enter the house through the window.
22. I'm try to get through to Joan, but her line busy.
23. She go home and relax after working in the office non-stop for twelve hours.

24. We’re usually watch the news on TV at 9:00.
25. Banks are lending more money to encourage businesses to expand.
26. He’s watch movie with his friends at the new theater.
27. Since winning the lottery, people are call me to ask how I’m going to spend money.
28. He anxiously open the gift as soon as his parents gave to him.
29. The growing number of visitors is damage the footpaths.
30. Sam listen to classical music while hiked in the mountains.
31. No one laugh after he told his joke because was not funny.
32. You’re always complain about my handwriting.
33. With growing concerns about environment, people starting to use recycled paper products.
34. She grab her purse and quickly ran out the door because was late.
35. Business increased, so the company hire more employees.
36. This morning went swimming, and now they’re have barbecue on the beach.
37. John is sleep right now, so we should go to another room to talk.
38. She divided the candy equally between her friends because she want to be fair
39. I need umbrella because it raining, and I forget mine.
40. John and Mary are talk on the phone about homework their teacher give them yesterday.
41. The secretary faxed her resume to another office because she want new job.
42. The waiter fill the cup with water when was empty.
43. I am take five courses this semester and work at the bookstore in the evening.
44. John is try to improve his work habits, but no one has noticed any improvements.
45. The new toy excit the dog so much that jumped up and down.

46. She writing another book this year, so will not have much free time.

47. He promised his teacher that he would not forget his homework again.

48. The clothes dry quickly because were hung outside in the warm sun shine.

49. The man attend school while working at factory.

50. Diane can't come to the phone because is wash her hair.

51. Kathy usually sits in the front row during class, but today she is sit in the last row.

52. She packed in the evening because she was leaving the next morning.

53. The driver was careless and back into the car behind him.

54. After three days of rain, I'm glad that sun is shine again today.

55. Today he is drive to a small town just north of the city.

56. He is look forward to the long weekend after busy week at work.

57. He is drive his car and listen to loud music while he goes around town.

58. The police arrest the thief who had been robbing people in neighborhood.

59. She gave away all the toys she collect as a child.

60. Jenny went to the department store and is shop for a birthday present.

61. The teacher is announce oral test order, so it is important to listen.

62. He check his test twice before giving to his teacher.

63. Sandra is plan the class trip this year, and everyone is wonder where we will go.

64. We are take the bus to see inflatable duck in harbor.

65. The mother comb her daughter's hair when woke up.

66. He called his mother to tell her that he would be late.

67. The little boy cough and sneeze all night when he was sick.

APPENDIX 2: Grammatical Judgment Test Answer Key

1. Christy says she is **feeling** better, but I think she **is** still losing weight. (1 *–ing*, 1 aux be)
2. As **the** judge **announced** the winners, the power went out. (1 art., 1 *–ed*)
3. The man **accepted** his new position because he received **a** pay raise. (1 *–ed*, 1 article)
4. We're **going** to do some climbing in **the** mountains. (1 *-ing*, 1 article)
5. The boy **attempted** to climb the tree during his lunch break. (1 *–ed*)
6. John **is** trying to book **a** flight to Japan, but **they're** all full. (1 aux be, article, 1 subject, 1 copula)
7. He's forever **asking** me for money, and I**'m** tired of telling him no. (1 *-ing*, 1 copula)
8. She **worried** that she weighed too much so **she** started dieting last week. (1 *–ed*, 1 subject)
9. Are you sure he **is** ready to be the leader of the class? (1 copula)
10. He **trembled** and shivered after walking out in **the** cold without his coat. (1 *–ed*, 1 article)
11. She'**s** very tired from studying all night for her exam. (1 copula)
12. At the moment, he **is writing** his homework when **he** is finished he'll go to bed. (1 subject, 1 *-ing*, 1 aux be)
13. The fire fighters **rushed** to the scene and **rescued** the man trapped in the car. (2 *–ed*)
14. She **talked** on the phone about their vacation plans for more than an hour. (1 *–ed*)
15. The car isn't **starting** again, so I will take **it** to the shop. (1 *-ing*, 1 object)
16. She'**s** making **a** speech at the conference next week. (1 aux be, 1 article)

17. The army **marched** for six days until they **reached** their destination. (2 –*ed*)
18. They're constantly **throwing** parties until the early hours of the morning. (1 –*ing*)
19. I'm **considering** taking my trip earlier than usual. (1 -*ing*)
20. He took the broken table to the shop and the man **repaired** it. (1 –*ed*)
21. The woman **reported** that she saw two men enter the house through the window. (1 –*ed*)
22. I'm **trying** to get through to Joan, but her line **is** busy. (1 -*ing*, 1 copula)
23. She **went** home and **relaxed** after working in the office non-stop for twelve hours. (1 irregular, 1 –*ed*)
24. We're usually **watching** the news on TV at 9:00. (1 -*ing*)
25. Banks are lending more money to encourage businesses to expand.
26. He's **watching a** movie with his friends at the new theater. (1 –*ing*, 1 article)
27. Since winning the lottery, people are **calling** me to ask how I'm going to spend **the** money. (1 -*ing*, 1 article)
28. He anxiously **opened** the gift as soon as his parents gave **it** to him. (1 –*ed*, 1 subject)
29. The growing number of visitors is **damaging** the footpaths. (1 -*ing*)
30. Sam **listened** to classical music while **he** hiked in the mountains. (1 –*ed*, 1 subject)
31. No one **laughed** after he told his joke because **it** was not funny. (1 –*ed*, 1 subject)
32. You're always **complaining** about my handwriting. (1 -*ing*)
33. With growing concerns about environment, people **are** starting to use recycled paper products. (1 aux be)
34. She **grabbed** her purse and quickly ran out the door because **she** was late. (1 –*ed*, 1 subject)

35. Business increased so the company **hired** more employees. (1 –*ed*)
36. This morning **they** went swimming and now they're **having a** barbecue on the beach. (1 subject, 1 -*ing*, 1 article)
37. John is **sleeping** right now, so we should go to another room to talk. (1 –*ing*)
38. She divided the candy equally between her friends because she **wanted** to be fair (1 –*ed*)
39. I need **an** umbrella because it **is** raining, but I **forgot** mine. (1 art, 1 aux be, 1 irregular past)
40. John and Mary are **talking** on the phone about **the** homework their teacher **gave** them yesterday. (1 -*ing*, article, irregular past)
41. The secretary faxed her resume to another office because she **wanted a** new job. (1 –*ed*, 1 article)
42. The waiter **filled** the cup with water when **it** was empty. (1 –*ed*, 1 subject)
43. I am **taking** five courses this semester and **working** at the bookstore in the evening. (2 –*ing*)
44. John is **trying** to improve his work habits, but no one has noticed any improvements. (1 –*ing*)
45. The new toy **excited** the dog so much that **it** jumped up and down. (1 –*ed*, 1 subject)
46. She **is** writing another book this year, so **she** will not have much free time. (1 aux be, 1 subj.)
47. He promised his teacher that he would not forget his homework again.
48. The clothes **dried** quickly because **they** were hung outside in the warm sun shine. (1 –*ed*, 1 subject)
49. The man **attended** school while working at **the** factory. (1 –*ed*, 1 article)

50. Diane can't come to the phone because **she** is **washing** her hair. (1 subject., 1 *–ing*)
51. Kathy usually sits in the front row during class, but today she is **sitting** in the last row. (1 *-ing*)
52. She packed in the evening because she was leaving the next morning.
53. The driver was careless and **backed** into the car behind him. (1 *–ed*)
54. After three days of rain, I'm glad that **the** sun is **shining** again today. (1 article, 1 *–ing*)
55. Today he is **driving** to a small town just north of the city. (1 *–ing*)
56. He is **looking** forward to the long weekend after **a** busy week at work. (1 art, 1 *–ing*)
57. He is **driving** his car and **listening** to loud music while he drives around town. (2 *–ing*)
58. The police **arrested** the thief who had been robbing **the** neighborhood. (1 *–ed*, 1 article)
59. She gave away all the toys she **collected** as a child. (1 *–ed*)
60. Jenny went to the department store and is **shopping** for a birthday present. (1 *–ing*)
61. The teacher is **announcing the** oral test order, so it is important to listen. (1*-ing*, 1 article)
62. He **checked** his test twice before giving **it** to his teacher. (1 *–ed*, 1 object)
63. Sandra is **planning** the class trip this year, and everyone is **wondering** where we will go. (2 *–ing*)
64. We are **taking** the bus to see **the** inflatable duck in harbor. (1 *–ing*, 1 article)
65. The mother **combed** her daughter's hair when **she** woke up. (1 *–ed*, 1 subject)

66. He called his mother to tell her that he would be late.

67. The little boy **coughed** and **sneezed** all night when he was sick. (2 *–ed*)

-*ing* morpheme	31
-*ed* regular past	31
article	19
subject	14
Auxiliary be	7
Copula be	5
Irregular past	3
object	2
TOTAL	112