THIRD LANGUAGE ACQUISITION OF WORD ORDER IN ENGLISH AFFIRMATIVE AND INTERROGATIVE STRUCTURES BY L1 YI AND L2 MANDARIN LEARNERS

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การรับการเรียงลำดับคำในโครงสร้างประโยคบอกเล่าและประโยคคำถามในภาษาอังกฤษเป็นภาษาที่สามของผู้เรียนที่มีภาษาหยีเป็นภาษาที่ 1 และภาษาจีนกลางเป็นภาษาที่ 2

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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรดุษฎีบัณฑิต
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Field of Study	English as an International Language
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ฉางเยี่ยน ชื่อ : การรับการเรียงลำดับคำในโครงสร้างประโยคบอกเล่าและประโยคคำถามในภาษาอังกฤษเป็นภาษาที่สามของผู้เรียนที่มีภาษาหยีเป็นภาษาที่ 1 และภาษาจีนกลางเป็นภาษาที่ 2. (THIRD LANGUAGE ACQUISITION OF WORD ORDER IN ENGLISH AFFIRMATIVE AND INTERROGATIVE STRUCTURES BY L1 YI AND L2 MANDARIN LEARNERS) อ.ที่ปรึกษาหลัก : รศ. ดร.ณัฐมา พงศ์ไพโรจน์

งานวิจัยนี้มุ่งทดสอบสมมติฐานจำนวน ๓ ข้อด้วยกันคือ ๑) ความเหมือนและความต่างในการรับรู้และการผลิตการเรียงลำดับคำในโครงสร้างประโยคบอกเล่าและประโยคคำถามในภาษาอังกฤษเป็นภาษาที่สามของผู้เรียนที่มีภาษาหยีเป็นภาษาที่ ๑ และภาษาจีนกลางเป็นภาษาที่ ๒, ๒) การถ่ายโอนของภาษาในเชิงบวกและเชิงลบของผู้เรียนที่มีภาษาหยีเป็นภาษาที่ ๑ และภาษาจีนกลางเป็นภาษาที่ ๒ ไปสู่ภาษาอังกฤษในฐานะภาษาที่ ๓ ในแง่ของการรับรู้และการผลิตการเรียงลำดับคำในโครงสร้างประโยคบอกเล่าและประโยคคำถาม, ๓) การถ่ายโอนของภาษาในเชิงลบที่พบในการรับรู้และการผลิตการเรียงลำดับคำในโครงสร้างประโยคในภาษาอังกฤษอันเกิดจากอิทธิพลของภาษาหยีซึ่งเป็นภาษาที่ ๑ และภาษาจีนกลางซึ่งเป็นภาษาที่ ๒ โดยผู้เรียนที่มีสมิทธิภาพทางภาษาอังกฤษในระดับสูงกว่า จะเกิดการถ่ายโอนของภาษาในเชิงลบอันเกิดจากอิทธิพลของภาษาจีนกลางในฐานะภาษาที่ ๒ ในขณะที่ผู้เรียนที่มีสมิทธิภาพทางภาษาอังกฤษในระดับต่ำกว่า จะมีการถ่ายโอนของภาษาในเชิงลบอันเกิดจากอิทธิพลของภาษาหยีในฐานะภาษาที่ ๑

กลุ่มตัวอย่างในงานวิจัยฉบับนี้คือนักเรียนชนกลุ่มน้อยชาวหยีจำนวน ๖๐ คน โดยแบ่งเป็นนักเรียนจำนวน ๓๐ คนจากโรงเรียนมัธยมลัวฮี และอีก ๓๐ คนจากมหาวิทยาลัยยูชี นอร์มอล มณฑลยูนนาน สาธารณรัฐประชาชนจีน กลุ่มผู้เรียนทั้งหมดแบ่งเป็นกลุ่มที่มีสมิทธิภาพทางภาษาอังกฤษในระดับเริ่มต้นและกลางขึ้นสูง โดยใช้แบบทดสอบสมิทธิภาพทางภาษาอังกฤษและภาษาจีนกลาง ผู้วิจัยดำเนินการเก็บข้อมูลการผลิตการเรียงลำดับคำ โดยใช้แบบทดสอบการผลิตโครงสร้างซึ่งประกอบด้วยการทดสอบปรนัยและการทดสอบการพูด และดำเนินการเก็บข้อมูลการรับรู้โดยการทดสอบการตัดสินทางไวยากรณ์และแบบสอบถาม

ผลการวิจัยสามารถสรุปได้ ๕ ประเด็น คือ ๑) ผู้เรียนที่มีสมิทธิภาพทางภาษาอังกฤษที่ในระดับต่ำมีแนวโน้มที่จะผลิตข้อผิดพลาดที่เกิดขึ้นจากการแทรกแซงของภาษามากกว่า และข้อผิดพลาดที่เกิดจากภาษาในระหว่างน้อยกว่า ในขณะที่ผู้เรียนที่มีสมิทธิภาพทางภาษาอังกฤษที่ในระดับสูงจะมีการผลิตข้อผิดพลาดที่เกิดขึ้นจากการแทรกแซงของภาษาน้อยกว่า และข้อผิดพลาดภายในภาษามากกว่า, ๒) ข้อผิดพลาดที่เกิดขึ้นทั้งจากการแทรกแซงของภาษา และข้อผิดพลาดภายในภาษามีสัดส่วนที่มาก ในขณะที่ข้อผิดพลาดภายในภาษามีสัดส่วนที่ต่ำกว่า และข้อผิดพลาดที่เกิดขึ้นจากการแทรกแซงของภาษาสูงกว่าในการรับรู้, ๓) ผลแสดงให้เห็นว่าผู้เรียนที่มีสมิทธิภาพทางภาษาอังกฤษในระดับเริ่มต้นจะมีข้อผิดพลาดที่เกิดจากอิทธิพลของการเรียงลำดับคำในโครงสร้างภาษาหยีในฐานะภาษาที่ ๑ ชัดเจนกว่าจากภาษาจีนกลางในฐานะภาษาที่ ๒ ในขณะที่ผู้เรียนที่มีสมิทธิภาพทางภาษาอังกฤษในระดับกลางขึ้นสูงมีข้อผิดพลาดที่เกิดขึ้นจากการแทรกแซงของการเรียงลำดับคำในโครงสร้างภาษาจีนกลางในฐานะภาษาที่ ๒ และข้อผิดพลาดที่เกิดจากภายในภาษาอังกฤษในฐานะภาษาที่ ๓ มากกว่า, ๔) ผู้เรียนที่มีสมิทธิภาพทางภาษาอังกฤษที่ในระดับเริ่มต้นจะมีข้อผิดพลาดในแบบทดสอบการผลิตซึ่งประกอบด้วยการเขียนและการพูดมากกว่าผู้เรียนที่มีสมิทธิภาพทางภาษาอังกฤษที่ในระดับกลางขึ้นสูง โดยเฉพาะอย่างยิ่งในการทดสอบการพูด, และ ๕) ผู้เรียนทั้งสองกลุ่มมีข้อผิดพลาดในการผลิตการเรียงลำดับคำในโครงสร้างประโยคบอกเล่าในภาษาอังกฤษน้อยกว่าในประโยคคำถามในภาษาอังกฤษ ดังนั้น ผลการวิจัยจึงยืนยันสมมติฐานทุกข้อของงานวิจัย

ดังนั้น จึงสามารถกล่าวได้ว่าผู้เรียนที่มีภาษาหยีเป็นภาษาที่ ๑ และภาษาจีนกลางเป็นภาษาที่ ๒ มีปัญหาในการผลิตการเรียงลำดับคำในโครงสร้างประโยคคำถามในภาษาอังกฤษมากกว่าในประโยคบอกเล่าในภาษาอังกฤษ เนื่องจากการถ่ายโอนของภาษาในเชิงลบซึ่งมีอิทธิพลอย่างสูงจากโครงสร้างประโยคภาษาหยีในฐานะภาษาที่ ๑ และภาษาจีนกลางในภาษาที่ ๒ ในการผลิตและการรับรู้โครงสร้างประโยคคำถามภาษาอังกฤษในฐานะภาษาที่ ๓ ผลการวิจัยมีประโยชน์ต่อความรู้ทางด้านการรับภาษาและมีนัยยะทางด้านการเรียนรู้และการเรียนการสอนภาษาที่สาม

สาขาวิชา	ภาษาอังกฤษเป็นภาษานานาชาติ	ลายมือชื่อนิสิต .....
ปีการศึกษา	2561	ลายมือชื่อ อ.ที่ปรึกษาหลัก .....

5687760620 : MAJOR ENGLISH AS AN INTERNATIONAL LANGUAGE
KEYWORD: L3 acquisition, word order, affirmative and interrogative structures, English, L1 Yi and L2 Mandarin learners

Changyan Shi : THIRD LANGUAGE ACQUISITION OF WORD ORDER IN ENGLISH AFFIRMATIVE AND INTERROGATIVE STRUCTURES BY L1 YI AND L2 MANDARIN LEARNERS. Advisor: Assoc. Prof. Nattama Pongpairoj, Ph.D.

This study aimed to test three hypotheses: 1) similarities and differences exist between the production and perception errors of word order in L3 English affirmative and interrogative structures by L1 Yi and L2 Mandarin learners; 2) positive and negative transfer from L1 Yi and L2 Mandarin to L3 English are evidenced in the production and perception of word order in affirmative and interrogative structures; 3) with respect to negative transfer, the production and perception of L3 English word order are negatively influenced by both L1 Yi and L2 Mandarin. However, the negative transfer is more influenced by L2 Mandarin learners with a higher L3 proficiency level, and more influenced by L1 Yi learners with a lower L3 proficiency level.

The participants were 60 Yi ethnic minority students with 30 students from Luohe Nationality Junior Middle School and the other 30 students from Yuxi Normal University in Yunnan Province, China, respectively. The learners were divided into the beginner and upper-intermediate level groups by means of an English proficiency test and a Mandarin proficiency test. The instruments employed were the data elicitation production tasks including a written task (multiple choice task) and an oral task, a perception task (grammaticality judgement tasks), and a questionnaire.

The findings were summarized in five dimensions. Firstly, the learners of the low English proficiency level tended to produce more interlingual errors and less intralingual errors, whereas the learners of the high English proficiency level committed more intralingual errors and less interlingual errors. Secondly, high proportions of the interlingual errors and intralingual errors were revealed in the production tasks, but lower proportions of intralingual errors and relatively higher proportions of interlingual errors were examined in the perception task. Thirdly, the results from the beginner learners indicated that cross-linguistic influences from L1 Yi word order were more evident than from L2 Mandarin word order and other structures, whereas the results from the upper-intermediate learners showed that interlingual errors from L2 Mandarin word order and intralingual errors of L3 English were more observable. Fourthly, the beginner learners produced more errors than the upper-intermediate learners in both the oral and written production tasks, whereas the upper-intermediate learners produced extremely less errors, especially in the oral production task. Lastly, both the beginner and upper-intermediate learners produced lower error rates of L3 English word order in the affirmative structures than in the interrogative structures. Accordingly, the results confirmed the hypotheses of this study.

Therefore, it can be assumed that the L1 Yi and L2 Mandarin learners were confronted with more difficulties in producing the interrogative structures rather than the affirmative structures, because strong negative influences from L1 Yi and L2 Mandarin word order were implicated in both the production and perception of L3 English interrogative structures. The findings from this study contributed to the area of L3 acquisition and yielded some pedagogical implications.

Field of Study:	English as an International Language	Student's Signature .....
Academic Year:	2018	Advisor's Signature .....

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ABBREVIATIONS

S	Subject
V	Verb
O	Object
DO	Direct object
IO	Indirect object
C	Complement
PP	Prepositional phrase
VP	Verb phrase
Inf	Infinitive
Aux.v	Auxiliary verb
Int	Interrogative
Pt	Particle
Inf.st	Infinitive structure
St	Structure
Int.pt	Interrogative particle
Neg.pt	Negative particle
Aff.pt	Affirmative particle
Agt	Agent
P	Patient
Part	Participle
Agt.pt	Agent particle
P.pt	Patient particle
M.pt	Mood particle
As.pt	Aspect particle
St.pt	Structural particle
V.part	Verb participle

CHAPTER I
INTRODUCTION

1.1 Background of the study

Nowadays, the fast development of the global economy, and the 'speed' and 'connectivity' of the Internet allow people from different places to communicate with each other in a variety of languages. Multilingualism is a social phenomenon governed by the needs of globalisation and cultural openness (De Blij, Muller, & Nijman, 2010). As Chomsky (2000) stated "In most of human history and in most parts of the world, children grow up speaking a variety of languages…That is just a natural state of human beings" (Chomsky, 2000, p. 59). Thus, universal multilingualism is essential, and many individuals are multilingual to some extent by virtue of living within multilingual and multidialectal communities.

English, described as the first global lingua franca, has become the international language of communications (Graddol, 2006). English is also one of the six official languages of the UN (Union, 2013). Therefore, a good knowledge of English has become a requirement in a number of fields, occupations, and professions around the world. Thus, English is being studied as a foreign language in many non-English speaking countries. In some countries, English is learnt as the second language (L2) or third language (L3). Similarly, China is a country using a variety of languages, and the English language learners have different mother tongues. Han Chinese students learn English as L2 and the ethnic minority students learn English as L3.

China is a country with 55 officially recognised ethnic groups that dwell with the Han Chinese. There is a majority of nearly 1.333 billion Han, comprising 91.6% of the population, and the remaining 55 ethnic minority groups total 112 million, 8.4% of the population (N. Census, 2010a). This multinational country has developed diversified languages. The Han majority speak Mandarin, whereas the ethnic minority people speak more than eighty languages (Ouyang & Zhou, 1994). Overall, the language situation is that the Han majority is monolingual in Mandarin, and the ethnic minorities are bilingual in their mother tongue and Mandarin. Therefore, it is worth studying third language acquisition in a multilingual environment.

Yunnan Province, located in southwest China, is a multi-ethnic dwelling province. Twenty-five types of ethnic minority groups live together with the Han majority. Within the total population of nearly 46 million in Yunnan Province, 30.62 million people belong to the Han nationality, comprising 66.63% of the total population. The ethnic minorities comprise nearly 15.33 million people, or 33.37% (Y. P. Census, 2010). These statistics indicate that the ethnic minority people comprise a large proportion of the population in Yunnan Province. The Yi nationality, as a significant ethnic minority group in China, has a population of 8.71 million people nationwide. This is the largest minority group in Yunnan Province. Exclusively, the Yi nationality comprises 5.02 million people, or 10.94 % of the total population in Yunnan Province (Y. P. Census, 2010). Thus, the Yi nationality is representative of the ethnic groups in China. Therefore, it is valid to take L1 Yi and L2 Mandarin learners as subjects to study third language acquisition.

Mandarin (Putonghua[1]) is the prestige level language in China. Putonghua is prescribed as the official language nationwide, and it has been mandatory in various fields since the 1950s (Council, 1956). Putonghua was promoted as the common language and established as the education medium for teaching (Zhou & Sun, 2006). Therefore, Putonghua is widely used as the only teaching media in schools at different levels, except for some ethnic minority regions where both Putonghua and the ethnic minority languages are used as the teaching media. From the 1980s onwards, English had been prescribed as a compulsory foreign language starting at the junior middle school level in China. English study is seen as important as the other major subjects, and students spend much time learning English.

Given the importance of English as the global communication language, the importance of English in foreign language education in China, the importance of Mandarin Putonghua as the only common language nationwide, and the characteristics of ethnic variety and linguistic variety evident in Yunnan Province under the domination of mainstream Mandarin, it would be meaningful to conduct a study about the acquisition of English as L3, by focusing on L1 Yi and L2 Mandarin

[1]Putonghua is based on the particular Mandarin dialect spoken in the capital city of Beijing, with some lexical and syntactic influences from other Mandarin dialects. It is the only official language spoken in China. Putonghua refers to spoken Chinese rather than written Chinese.

ethnic learners in China. As Yunnan Province comprises the most ethnic varieties, and the Yi ethnic minority is the largest ethnic minority in the province, the current study will sample participants who are learning English as a third language.

In linguistics, it is assumed that the problems students encounter in L2 and L3 differ greatly (Cenoz, 2001, 2003; Klein, 1995). Compared with L2 acquisition, L3 acquisition involves unique and complex factors and effects due to the various possible interactions between the previously acquired languages and the language in the process of learning (Cenoz & Genesee, 1998; Jordà, 2005). Thus, presumably, the ethnic bilingual students may also face various obstacles to learn L3 English after they have fully learnt their mother tongue and L2 Mandarin. They may need to tackle different challenges with respect to cross-linguistic influence.

In the current situation of English as foreign language education in China, writing and reading skills are emphasised more than listening and speaking skills. Almost all teaching and the examinations aim to improve writing and reading ability by using correct grammatical structures. As in the English Test for the College Entrance Examination, which is an English placement test for high school graduates, writing and reading comprise 60% of the marks (E. T. f. t. C. E. E. Committee, 2016); also in the College English Test Bands 4 and 6 (CET 4 & CET 6), which is an English test for college students to examine English proficiency, writing and reading comprise 80% (C. E. T. B. a. committee, 2016). Accordingly, English grammar is stressed strongly in teaching and learning. However, the overall English score for the minority students is lower than for Mandarin monolingual students. Therefore, a study on acquisition of L3 English by ethnic minority students at the syntactic level will be worthy of exploration.

Linguistically, previous research indicated that the acquisition models for L1, L2, and L3 are greatly different for the acquisition process (Bild & Swain, 1989; Leung, 2005; Ramsay, 1980; Thomas, 1989). In the past two decades, the issue of the cross-linguistic influence for L1 and L2 on L3 acquisition has aroused the interest of linguists (Bild & Swain, 1989; Leung, 2005; Nayak, Hansen, Krueger, & McLaughlin, 1990). Gass (2013) referred to the effect of interlanguage transfer on multilingual students, and stated that multilingual students have not one, but two or

more background languages that are potential sources of influence on the students' interlanguage. From the point of view of cross-linguistic influence, the question arises as to how the three languages interact with each other during the language acquisition process.

However, the study of L3 has mainly been carried out in the European context. Many conferences on L3 acquisition have taken place in Europe (Cenoz, Hufeisen, & Jessner, 2001). Articles, publications of conference papers, and other volumes have appeared, and this field of research is currently characterised by new areas of inquiry and methodologies. An impressive number of studies on lexical cross-linguistic influence have appeared within the psycholinguistic and sociolinguistic fields (Cenoz, Hufeisen, & Jessner, 2003; Dewaele, 1998; Williams & Hammarberg, 1998). Studies of L3 acquisition in other countries offer many theories and models regarding L3 acquisition. These have been applied to the study of the same field in China. Studies of L1 and L2 transfer for L3 acquisition by ethnic minority students in China are related to the areas of teaching management, learning disorders, learning motivation and attitude, and learning strategies (Jiang, Liu, & Li, 2006; Liu, 2007; Yuan, 2007). These studies are concerned with both positive and negative transfer.

As far as the study of positive transfer of L1 and L2 in L3 acquisition is concerned, Yuan (2007) stated that in L3 acquisition, and compared with Han Chinese monolingual students, the minority students have an advantage when learning a new language and analyzing the structure of that language. Hu (2007) indicated that in teaching English as L3, teachers sometimes neglect to apply the advantages of the bilingual competence that were exclusively owned by the ethnic minority students to accelerate L3 learning. Gong (2009) conducted a study on the attitude to learning English as L3 by Tibetan college students, and claimed that Tibetan has some similarities to English in pronunciation and grammar, which helps Tibetan students learn English as L3. Li (2003) studied the characteristics owned by ethnic minority students when learning English as L3 with respect to phonology, syntax and culture.

Comparatively, some studies are concerned with the negative transfer for L3 acquisition with respect to phonology, morphology, syntax, semantics and pragmatics. Zhu (2000) conducted a study on syntactic transfer of the L1 minority language and

L2 Mandarin for L3 French. He and Xu (2006) conducted a study on trilingual acquisition by students from national universities[2] from the perspective of the mother language and Mandarin's influence on L3. Zhang (2008) conducted a study on grammatical errors in English writing by Uyghur[3] students, and synthesised the causes of grammar errors. Jiang et al. (2006) studied foreign language learning motivation by minority students in middle schools. Yuan (2007) conducted an empirical study on the correlation of learning motivation and English scores. Cai and Yang (2010) studied the correlation of L2 and L3 in the cognitive process by ethnic minority students. Zeng and Li (2010) conducted a study focusing on the differences of L2 and L3 learning, and concluded that studying L3 acquisition is a new unique phenomenon worthy of further investigation.

The previous research mentioned above is concerned with the influence of L1 and L2 on L3, in and out of the context in China. These studies are not directly relevant to an explicit analysis of the obstacles encountered by students at the syntactic level. Few cases that touched the morphological and syntactic structures have been conducted in China. At the morphological level, Xiang and Cao (2006) presented grammatical differences between the Yi language and English. Besides, Xiao and Xu (2008) discussed analogical transfer in syntactical structures in Mandarin and English. Yang and Qi (2013) contrasted modifier-noun constructions in the Dai language, Mandarin, and English in the case of ethnic Dai students' L3 acquisition; Xu (2012) analysed the negative syntactic transfer by Tibetan students' L3 acquisition; Meng (2014) studied the influence on Hmong students'L1 and L2 when learning the consonants of L3. These studies discussed transfer in terms of phonological and syntactic levels. Regarding the learning of word order, Odlin claims that word order is one of the most intensively studied syntactic properties in linguistics (Odlin, 1989, 2013). Nevertheless, L3 acquisition of syntactic word order is still an area that requires further exploration across a wide variety of linguistic contexts in China. However, to the best of my knowledge, the area of acquiring the

[2]These are universities comprising mainly ethnic minority students that aim to train qualified human resources for minority regions nationwide.
[3]Uyghur is a Turkic ethnic group that lives in Xinjiang Province of China.

word order of L3 English in affirmative and interrogative structures has not been studied.

The current study mainly concerns L3 acquisition of word order in English affirmative and interrogative structures. The participants were L1 Yi and L2 Mandarin students whose mother tongue is Yi and L2 is Mandarin. This is different from the previous study as it portrays how L3 English acquisition occurs differently in ethnic minority students with different English proficiency levels. It explores whether acquisition of English L3 is influenced by the L1 minority language or L2 Mandarin in relation to cross-linguistic influence and interlanguage transfer. In particular, the most commonly used affirmative and interrogative structures that are used most often in any language were selected for the research. Obviously, this depicts L3 acquisition from a new perspective.

Therefore, considering China's multilingual characteristics and the severe obstacles that ethnic minority students encounter in learning L3 English, the current study will highlight L3 acquisition of word order in English language affirmative and interrogative structures. As the Yi nationality comprises a big majority among the ethnic groups in China, L1 Yi and L2 Mandarin students were selected as the subjects for this study. Upon completion, this will provide a useful contribution to the theory and practice of L2 and L3 acquisition.

1.2 Objectives of the study

The objectives of the study were:

1. To explore similarities and differences between the production and perception errors of word order in L3 English affirmative and interrogative structures by L1 Yi and L2 Mandarin learners.

2. To explore if there is negative or positive transfer from L1 Yi or L2 Mandarin in L3 English. If this exists, to explore if L1 Yi or L2 Mandarin is more influential for the acquisition of the word order in L3 English affirmative and interrogative structures.

1.3 Research questions

The research questions in this study were:

1. What are similarities and differences between the production and perception errors of word order in L3 English affirmative and interrogative structures by L1 Yi and L2 Mandarin learners?

2. Is transfer, whether negative or positive, evidenced from L1 Yi or L2 Mandarin to L3 English? If this exists, which language, L1 Yi or L2 Mandarin, has more influence on the acquisition of word order in L3 English affirmative and interrogative structures?

1.4 Definition of terms

For the purpose of the study, the following terms were defined:

1.4.1 First language (L1)

First language is also known as L1, native language or mother tongue. It is the language a person has learnt from birth, or within the critical period when the learners can learn to speak that language best during that time. In this study, the Yi language is L1 for the participants.

1.4.2 Second language (L2)

Second language is also known as L2. It is any language learnt by speakers after the first language, no matter if learnt during the critical period or not. In this study, Mandarin is L2 for the participants.

1.4.3 Third language (L3)

Third language is also known as L3. It is the language learnt after a person has learnt the first and second languages. The third language in this study refers to English as the L3 learnt by L1 Yi and L2 Mandarin learners in China.

1.4.4 Mandarin

Mandarin is a category of related Chinese dialects spoken across most of northern and south-western China. Generally, Mandarin can refer to either of two distinct concepts: Standard Mandarin (Putonghua), or all the Mandarin dialects; the former is based on the particular Mandarin dialect spoken in Beijing, and the latter is spoken in northern and south-western China. In this study, Mandarin refers to both standard Mandarin Putonghua and one of the Mandarin dialects spoken in Yunnan Province.

1.4.5 Yi ethnic group

Yi ethnic group is an ethnic group dwelling in south-western China, Vietnam, Laos and northern Thailand. It is the seventh largest of the 55 ethnic minority groups officially recognised by the People's Republic of China. The Yi minority students in this study come from Yunnan Province, which is located in south-western China.

1.4.6 Yi language

Yi language belongs to the Tibeto-Burman language group, which is a language group within the Sino-Tibetan Language Family. It is a cross-border language spoken by the Yi people who live mainly in south-west China (Yunnan, Sichuan, Guizhou and Guangxi provinces), Vietnam, Laos, and Thailand. The Yi language has both written and verbal forms, but only the verbal style is used nowadays. In China, there are six dialects spoken by the Yi people (Chen, Bian, & Li, 1985). This study refers to the Yi language as spoken in Yunnan Province. The Yi language is stated as Yi in this study.

1.4.7 L1 Yi and L2 Mandarin learners

L1 Yi and L2 Mandarin learners are Yi ethnic minority students who speak the Yi language as L1 and Mandarin as L2. In this study, they are Yi ethnic minority students attending the middle school and college in Yunnan Province, China. They all learnt English as the third language at school.

1.4.8 Language transfer

Language transfer is also known as linguistic interference, referring to "the influence resulting from the similarities and differences between the target language

and any other language that has been previously acquired" (Odlin, 1989). In this study, it refers to the situation where the L1 Yi and L2 Mandarin learners apply knowledge from their mother language (L1) and Mandarin (L2) to English (L3) acquisition.

1.4.9 Affirmative structure

Affirmative structure is a traditional grammatical term for any statement that is positive, not negative. It is also stated in declarative statements. In this study, it only refers to the six types of affirmative structures:

1. Subject +Verb +Object
2. Subject+ Verb+ Object+ to
3. Subject+ Verb+ Double objects
4. Subject+ Verb+ Object+ Preposition phrase
5. Passive voice
6. Subject+ Verb+ to

1.4.10 Interrogative structure

Interrogative structure is a sentence that asks a question and ends with a question mark. It is typically marked by inversion of the subject and predicate. In this study, it includes Yes-no questions (positive), Yes-no questions (negative), and Wh-questions.

1.5 Scope of the study

This study aims to investigate the phenomena of the cross-linguistic influence from L1 Yi or L2 Mandarin to L3 English. It explores L1 Yi and L2 Mandarin learners' production and perception errors of word order in English affirmative and interrogative structures. There are many linguistic factors by which we can account for and trace the cause of language transfer. At the syntactic level, similarities and differences of sentential structures in three languages provide clues about language transfer. The three languages in relation to this study are L1 Yi, L2 Mandarin, and L3 English.

Since Mandarin and English are languages with the S+V+O word order, while Yi is a language with the S+O+V word order, there are no sentence structures that are the same as L1 Yi and L3 English. That is, there are no sentence structures that meet the case (L1 Yi structure=L3 English structure). The present study focuses on simple sentences, and compound sentences are not included. The structure of simple sentences can be divided into two cases: (1) L1≠L2&L3 (L2=L3) and (2) L1≠L2≠L3. Therefore, whether the transfer is from L1 Yi or L2 Mandarin will be predicted and attributed to the results of the two cases.

1. L1 Yi≠L2 Mandarin&L3 English (L2=L3)

Case 1 refers to the sentence structures that are the same as L2 Mandarin and L3 English, but different from L1 Yi.

2. L1 Yi≠L2 Mandarin≠L3 English

Case 2 refers to the sentence structures that are totally different among the three languages.

Affirmative structures and interrogative structures are sampled for discussion in this study. Six affirmative structures with three structures of case L1≠L2 & L3 (L2=L3), and three structures are case L1≠L2≠L3, and three interrogative structures are case L1≠L2≠L3 were selected.

Table 1: The affirmative structures

No	Category	L3 English	L2 Mandarin	L1 Yi
Case 1: L1 Yi≠L2 Mandarin &L3 English (L2=L3)				
1	Simple S+V+O	S+V+O E.g. I help him.	Same as English	S+O+V E.g. I him help.
2	S+V+O+to	S+V+O+to E.g. Mom asked me to buy some food.	Same as English	S+O+to+V E.g. Mom me food some to buy ask.
3	With double	S+V+IO+DO E.g. I give him a	Same as English	S+IO+DO+V E.g. I him book a

	objects	book.		give.
Case 2: L1 Yi≠L2 Mandarin≠L3 English				
1	With a preposition	S+V+O+PP E.g. I found it on the shelf.	S+PP+V+O E.g. I on the shelf found it.	S+PP+O+V E.g. I shelf the on it found.
2	Passive voice	O(patient)+Be+V3+ by+S(agent) E.g. The child was beaten by him.	O(patient)+by+S (agent)+V E.g. The child by him beaten.	O(patient)+S+Agt.p t +V E.g. Child the him by beaten.
3	With the infinitive structure 'to'	S+V+to E.g. I plan to play football.	S+V+V+O E.g. I plan play football.	S+O+V+V E.g. I football play plan.

Table 2: The interrogative structures

No	Category	English	Mandarin	Yi
Case 2: L1 Yi≠L2 Mandarin≠L3 English				
1	Affirmative Yes-no question	Aux.v+S+V+O E.g. Have you finished the work? Can I take the book? Do you go to school?	S+Aux.v+V+O+ Int.pt E.g. You have finished the work? I can take the book? You go to school?	S+O+V+Aux.v+Int. pt E.g. You work the finished have? I book the take can? You school go to?
2	Negative Yes-no question	Aux.v+Neg.pt+S+ V+O E.g. Don't you play football?	S+Neg.pt+V+O E.g. You don't play football?	S+O+Neg.pt+V E.g. You football don't play?
3	Wh-question (Wh-word as the object)	Int+Aux.v+S+V E.g. What does he make? Which do you like?	S+V+Int E.g. He makes what? You like which?	S+Int+V E.g. He what makes? You which like?

1.6 Statement of hypotheses

The hypotheses for this study are:

1. Similarities and differences exist between the production and perception errors of word order in L3 English affirmative and interrogative structures by L1 Yi and L2 Mandarin learners.

2. Positive and negative transfer from L1 Yi and L2 Mandarin to L3 English is evidenced in the production and perception of word order in affirmative and interrogative structures.

3. With respect to negative transfer, the production and perception of L3 English word order of affirmative and interrogative structures are negatively influenced by both L1 Yi and L2 Mandarin. However, the negative transfer is more influenced by L2 Mandarin learners with a higher L3 proficiency level, and more influenced by L1 Yi learners with a lower L3 proficiency level.

1.7 Significance of the study

This study contributes to the study of L3A, both theoretically and practically.

Theoretically, this study contributes to understanding the theory and practice of L1 and L2 influence on L3 acquisition in terms of the word order in affirmative and interrogative structures in English. There have been some studies of L3 acquisition regarding syntactic transfer. Falk and Bardel (2010) stated that the areas of vocabulary and syntax have been at two linguistic levels so far in most research concerned with the perspective of cross-linguistic influence. Klein (1995) investigated the acquisition of both lexical items (verbs) and syntactic elements (preposition stranding) by multilingual and monolingual learners of English. Yang and Qi (2013) contrasted modifier-noun construction in the Dai language, Mandarin, and English by ethnic Dai students' third language acquisition. However, the present study is different from any previous research, as it emphasizes the transfer from L1 and L2 to L3 in terms of the word order in affirmative and interrogative structures, and explores the production and perception errors of these structures by L1 Yi and L2 Mandarin

learners. In addition, it examines the similarities and differences among bilingual speakers with different English proficiency levels (beginner and upper-intermediate learners).

The previous studies indicated that L3A is not the same as L2A, and transfer in L3A does not necessarily come from L1, but also from L2 in different language contexts (Leung, 2001, 2002, 2005). Bardel and Falk (2007) argued that a qualitative difference between the acquisition of true L2, and the subsequent acquisition of an L3 in terms of sentence negation, indicated that the syntactic structures were transferred more easily from L2 than from L1 at the initial state of L3A by two groups of learners with different L1s and L2s, when acquiring Swedish or Dutch as L3. Hammarberg (2009) claimed that previously learnt languages have an influence on a learner's production in the third language, through exploring the similarities and differences in the occurrence of L1 English and L2 German in L3 production.

Furthermore, early research of L3A focused mainly on the lexicon. The studies of L3 learners at the lexical level were related to the creation, development, and processing of L3 lexical representations from the perspective of cross-linguistic influence (Ecke, 2001; Hall & Ecke, 2003; Hammarberg, 2001). During the last decade or so, the study of SLA has percolated into the field of L3 morphosyntax. In particular, two well-established models advocate for the L2 status and typological proximity, respectively, as the main factors for the selection of morphosyntactic transfer in L3, either at the initial stages only, or throughout development (Bardel & Falk, 2007; Rothman, 2011, 2015). L3A presents an increased complexity regarding the initial stages of interlanguage formation, as multiple grammatical configurations have been realised in the learner's previous languages and are thus available for transfer (Alonso & Rothman, 2016). Thus, the present study discusses the phenomenon of L3A by focusing on the production and perception errors of word order in terms of affirmative and interrogative structures by L1 Yi and L2 Mandarin learners of the beginner and upper-intermediate levels, who respectively represent learners at the initial stage and the developmental stage. This study extends the study of L3A in the various linguistic contexts compared with the previous studies. Therefore, the study of L3A in such contexts will discover new findings.

Practically, on the one hand, the situation that learners are familiar with one or more second languages is becoming more frequent in the present society due to the following factors: an increase in the number of people who travel and work abroad, the greater focus on languages in education, the greater exposure to other languages through the media, and so on. Therefore, prior language knowledge is discussed as a source of influence on the new third language (Hammarberg & Williams, 1993). Thus, multilingualism has become a common phenomenon in modern society. In addition, the present study is a representative case regarding L3A by subordinate language learners (L1 Yi and L2 Mandarin learners), rather than the official or dominant language learners (Chinese monolingual learners). It extracts the characteristics in L3A which are different from L2A.

On the other hand, in China, the ethnic minority learners have been facing difficult problems when learning English as the third language, starting from the 1980s, when English was first subscribed as the compulsory foreign language in the education system. China has a large population comprising 55 ethnic groups. The ethnic minority groups have their own mother language. The ethnic minority learners start learning English as L3, after they have acquired L1 and L2 Mandarin. Linguistically, the three languages are from different language families [4] with different linguistic systems. Pedagogically, the grammar translation method is the major mode for foreign language teaching in China. Lizhiling (2007) indicated that grammatical rules are the focus for learning and teaching in China, and success in learning English is mainly achieved through translation of the grammar rules among languages. In this situation, the ethnic minority learners may apply the grammar rules of their mother language and L2 Mandarin in L3 English, and their linguistic knowledge in L1 and L2 may apply to L3 in terms of grammatical rules. Thus, when the ethnic minority learners study English as L3, they encounter a number of obstacles that are different from Mandarin monolingual learners.

[4]The three languages discussed in this study refer to the Yi language, Mandarin, and English. The Yi language and Mandarin are languages from the Sino-Tibetan language family. In detail, the Yi language belongs to the Yi-Burmese language, which is a branch from the Tibeto- Burman languages. It uses the S-O-V grammatical structure. Mandarin belongs to the Sinitic branch with the S-V-O structure. English comes from the Germanic languages of the Indo-European language family that use the S-V-O structure.

Therefore, the ethnic minority learners have experienced a greater disadvantage when learning English from the 1980s onwards compared with Chinese monolingual learners. Comparatively, the average English scores by ethnic minority learners were lower than that achieved by Chinese monolingual learners. In particular, grammar is the major concern in English classes and exams. However, in the process of learning English as L3, the ethnic minority learners are exposed to more severe problems in grammar than Chinese monolingual learners. For instance, they use the word order of L1 or L2 Mandarin. Therefore, it is important to explore whether L1 or L2 is more influential, or if both L1 and L2 are equally influential, in the acquisition of English L3 in terms of word order. By exploring the production and perception errors of word order by L1 Yi and L2 Mandarin learners, this study provides English instructors with more clues about teaching ethnic minority learners from the perspective of L3A, rather than simply judging the learners' English level by the exam score. Furthermore, it guides ethnic minority learners to find their major problems and they can adjust their learning of English accordingly.

Therefore, theoretically, this study contributes to the study of L3A from a new perspective. The special cognitive process experienced by L1 Yi and L2 Mandarin learners exemplifies the understanding of L2 and L3 acquisition of other languages. This study enriches the theory of L3A. Practically, it is helpful for the pedagogical implications when teaching and learning English as a third language.

CHAPTER II
REVIEW OF LITERATURE

This chapter reviews the theories and research studies that are relevant to the present study. It comprises five sections: language acquisition (2.1); related theories (2.2); previous studies of L3 acquisition regarding word order (2.3); word order in English, Yi, and Mandarin (2.4) and; summary (2.5).

2.1 Language acquisition

Regarding language acquisition, this section reviews the following areas: second language acquisition (2.1.1) and; third language acquisition (2.1.2).

2.1.1 Second language acquisition

Regarding second language acquisition (L2A), this part discusses the following areas: definition of L2A (2.1.1.1); the stages of L2A (2.1.1.2) and; the acquisition of word order in L2A (2.1.1.3).

2.1.1.1 Definition of L2A

The field of SLA has been an ongoing research topic since the end of the 1960s. Over the years, the study of L2A has expanded rapidly, and widened the scope of research interest and perspective in the areas of cognitive, grammatical, neural, pragmatic, and socio-interactive aspects of language learning and use. Some of the first studies of L2 learners were published (Huang, 1971; Ravem, 1968).

Gass and Selinker (2008) defined L2A “as any language learned in addition to a person’s first language although the concept is named second language acquisition, it can also incorporate the learning of third, fourth, or a subsequent language’ Gass and Selinker (2008, p. 7). Corder (1967) primarily advanced the theoretical case for examining L2A. According to Krashen (1987), L2A is “a process similar, if not identical, to the way children develop the ability in their first language, which is a subconscious process.” According to Ellis (1994), L2A referred to the acquisition of

any language other than L1. Ellis elaborated that, in addition to the L1, multilingual learners may acquire a level of competence in more than one non-primary language.

2.1.1.2 The stages of L2A

Haynes (2007) divided the process of L2A into five stages:

1. Preproduction (silent period). The learners at this stage only have a receptive ability but they are not speaking yet.

2. Early production. The learners are able to speak in short phrases of one or two words.

3. Speech emergence. The learners are able to communicate using simple questions and phrases, and grammatical errors may occur at this stage.

4. Intermediate fluency. The learners are able to use more complicated sentence structures.

5. Advanced fluency. The leaners at this stage can function at a level close to that of native speakers.

2.1.1.3 The acquisition of word order in L2A

Concerning the word order of structures in language acquisition, one can see clear similarities across learners regarding which structures tend to be acquired early and which tend to be acquired later (Brown, 1973; Dulay & Burt, 1975). Krashen (1981) stated that learners need not have a conscious awareness of the 'rules' they possess, and may self-correct only on the basis of their 'feel' for the correct grammar. However, acquisition of word order in SLA can be challenging for L2 learners, because the word order features of their L1 and L2 may often be different (Li, 1999). For instance, the two sentences 'A beat B' and 'B beat A' have an absolutely different meaning if the word order changes. In the study of word order of L2A, Tomlin (2014) claimed:

> The new second language learner often is intrigued as much by word order differences in the new language as by any other feature except, perhaps, phonology. Word order, thus, represents the most overtly noticeable feature of cross-linguistic syntax, yet at the same

> time it remains a tantalising problem, both to describe the pertinent facts of word order variability and to provide some explanation for the great diversity one can see cross-linguistically. (Tomlin, 2014, p. 1)

On the other hand, the accuracy order may be represented by the order of acquisition, on the ground that the morphemes acquired first would be performed more correctly than the morphemes acquired later (Dulay & Burt, 1974). Krashen (1977) used the results of morpheme studies to claim that there was a 'natural' route of acquisition for an L2. However, Ellis (1994) claimed that accuracy of morpheme acquisition of a specific feature does not necessarily mean that learners have acquired the ability to use such form in a target-like way. Evidence from studies of the acquisition of German word order rules by both natural and classroom learners indicated that certain formal properties of L2 were acquired sequentially in some kind of natural sequence (Clahsen, Meisel, & Pienemann, 1983; Ellis, 1989; Meisel, 1983). Ellis (1994) further claimed that each rule involved certain processing operations that are hierarchical in terms of their psycholinguistic complexity. Therefore, it is meaningful to review word order in the context of L2A research.

2.1.2 Third language acquisition

This section discusses studies with respect to third language acquisition. It incorporates these areas: definition of third language acquisition (2.1.2.1); the Cumulative Enhancement Model in L3A (2.1.2.2); language distance (2.1.2.3); the 'L2 status factor' theory (2.1.2.4); L3A is not a case of L2A (2.1.2.5) and; the role of L1 and L2 in L3A (2.1.2.6).

2.1.2.1 Definition of third language acquisition

Cenoz (2003) defined Third Language Acquisition (L3A) as acquisition of a non-native language by learners who have previously acquired or are acquiring two other languages. Acquisition of the first two languages can be simultaneous (as in early bilingualism) or consecutive. That is, the individual may have acquired the native language L1 first, and acquired the L2 thereafter, or the individual has learnt two languages at the same time as a bilingual speaker, and later acquired an L3 language. Accordingly, De Angelis (2007) proposed the term "Third, or additional

language acquisition (L3/Ln)[5], which refers to all languages beyond L2, without giving preference to any particular language" De Angelis (2007, p. 11).

However, L3A was defined by Hammarberg (2010) from a broader perspective: "L3 is used for a non-native language, which is currently being used or acquired, in a situation where the person already has knowledge of one or more L2s in addition to one or more L1s. An L3 language is thus a special case for the broader category of L2, and not necessarily language number three in order of acquisition" Hammarberg (2001).

2.1.2.2 The Cumulative Enhancement Model in L3A

The Cumulative Enhancement Model (CEM) was proposed by (Flynn, Foley, & Vinnitskaya, 2004). According to this model, language acquisition is cumulative, meaning any prior language can either enhance subsequent language acquisition, or remain neutral. That is, there may be the case that any prior language does not influence the L3 learners' process of acquisition. CEM is one of the first generative attempts at modelling morphosyntactic multilingual transfer. It supported that there is not necessarily an L1 transfer effect in L3A in adulthood through studying the production of restrictive relative clauses by L1 Kazakh/ L2 Russian/ L3 English speakers.

Taken together, CEM by Flynn et al. (2004) is summarised as follows:

1. In language acquisition, experience of any prior language can influence subsequent language acquisition. The positive influence of any previous L1 or L2 languages could facilitate L3A. Therefore, providing overall target-like structures from the outset.

2. L1 does not play a privileged role in subsequent language acquisition.

3. While L2 is still 'in progress', its influence on L3A is not the same as when L2 and L3 are sequential[6]. Namely, the specific knowledge underlying language A

[5] L3 also Ln refers to languages that the learners' sequential acquisition of additional languages beyond the second language (Slabakova, 2016).
[6] This refers to the case that the initial stage of L3A starts after the learners have successfully acquired L2.

appears to be more fully available for the acquisition of language B when language B is acquired after the learner has successfully acquired language A.

2.1.2.3 Language distance

Language distance, also called 'Typological distance', is reviewed within a range of different terms: Psychotypology or Typological Proximity by (Kellerman, 1979), Relatedness Distance by (Jarvis, 2000), Similarity Distance by (Odlin, 1989), Language Distance by (Ringbom, 1987), or the Typological Primacy Model (TPM) by (Rothman, 2010, 2011, 2015). De Angelis (2007) defined language distance as the "The distance that a linguist can objectively and formally define and identify between languages and language families" De Angelis (2007, p. 22).

Based on Keller (1983), Rothman's view of the Typological Primacy Model (TPM) is that the learners transfer the grammar properties, either L1 or L2, which are perceived to be typologically closer to the L3 (Rothman, 2011, 2015). However, this typological relationship may only be a perception. Slabakova (2016) examined Spanish and Portuguese as example. These languages belong to the Romance language family and are closely related; they can be considered typologically closer to each other than to English.

Kellerman (1979) claimed that typology has been shown to influence multilingual speakers' selection of a language as the transfer source. De Angelis and Selinker (2001) claimed that typological proximity is sufficient by itself to influence the selection process in L3A. For the typological similarity of L2 in relation to L3 as a reason for transfer, Angelis (2005) mentioned the possibility of transfer occurring from an L2 source that is typologically distant from the L3. However, the majority of languages used in the study of typology proximity were languages of Western Europe. To achieve a broader understanding of typology as a factor of transfer, a variety of languages from various language backgrounds should be tested.

Heidrick (2006) claimed that typological similarity was almost always the deciding factor regarding which language was used as a source. Leung's findings suggested that knowledge of an L2 that is typologically close to the L3 facilitates

acquisition (Leung, 2005). Gibson, Hufeisen, and Libben (2001) observed that the typological relationship between the L1 and L3 had no bearing on L3A.

For instance, the study by Cenoz (2001) of bilingual speakers of Basque and Spanish targeting English equated to a formal similarity, since English and Spanish are closer languages, they both belong to the Indo-European family, but Basque is classified as a more distant language from Spanish or English. Therefore, learners usually rely on Spanish as the source language. Similar evidence to that presented by Cenoz (2001) was found in cases of Asian or African speakers studying a European language (L2), and aiming at another European language (L3) (Ahukanna, Lund, & Gentile, 1981; Bartelt, 1989; Ringbom, 1987). These cases all confirm the importance of typological distance and prior language knowledge in the selection of language supplier.

2.1.2.4 The 'L2 status factor' theory

The 'L2 status factor' was first perceived by Meisel, who claimed 'the foreign language effect' (Meisel, 1983). It means the L1 is suppressed by virtue of it being the native language when learning an additional foreign language. Consequently, the L2 is activated. Later, the 'L2 status factor' theory was coined by Williams and Hammarberg (1998) to explore the L3 learners' tendency to use L2 as the source language in preference to L1 by studying Sarah Williams' case regarding L3A. Her native language is English, with high proficiency in German as L2, and Swedish as L3. It was found that she relied on the L2 as the source language at the initial state of L3A. At a later stage, she also relied on the L1. Hammarberg (2001) further defined the L2 status factor as the desire to suppress L1 as being 'non-foreign', and to rely more on an orientation towards a prior L2 as the strategy to approach the L3. Bardel and Falk (2007) proposed the 'L2 status factor', which suggested that L2 acts as a filter in L3A, and blocked transfer by the learner from L1 at the syntactic level.

In addition, more research has indicated the L2 status as the main factor influencing the acquisition of an L3 language (Angelis, 2005; Bardel & Falk, 2007, 2012; Leung, 2002). At the lexical level, Filatova (2010) studied speakers of Russian (L1), English (L2), and Spanish (L3), in a forum at a university seminar. The results indicated that most often the leaners favoured L2 over L1. At the syntactic level,

many studies focused on the acquisition of L3 syntax concerning the L2 status factor as the source (Bardel & Falk, 2007; Bohnacker, 2006; Falk & Bardel, 2011; Hammarberg, 2009; Williams & Hammarberg, 1998).

A relevant case related to the influence of the syntactic level in the 'L2 status factor' in L3A was conducted by (Bardel & Falk, 2007). This study indicated that syntactic structures were more easily conveyed from L2 than from L1 at the initial state of L3A, through a study of the initial state regarding the placement of a negation in a sentence. Two groups of learners, one group learning Swedish as L3, and the other learning Dutch as L3, were studied. As negation in Swedish and Dutch is post-verbal in the main clause due to raising both lexical and non-lexical verbs to a complementiser head, known as the verb-second (V2) rule, this word order rule is shared by all Germanic languages except English. One group in the study had a V2 native language, but their L2 was not a V2 language, and the other group had a non-V2 native language, but the L2 was a V2 language. Therefore, Bardel and Falk (2007) concluded that the 'L2 status factor' played a more important role than typological distance.

2.1.2.5 L3A is not a case of L2A

In the late 20th century, most linguists supported the view that there is no difference in the acquisition of L2 or L3/Ln, and that all languages acquired after the native language are L2 (Myles, Hooper, & Mitchell, 1998; Singh & Carroll, 1979). That research deemed mainly that L3A was based on the L2A, and the L2A theories and approaches apply to L3A as the starting point. Few studies on L3 morphosyntax were discussed as L3 was treated as another case of L2A, thus it dismisses the role of other languages in the acquisition process (García Mayo, 1999; Klein, 1995; Zobl, 1992).

However, Cenoz et al. (2001) claimed L3/Ln acquisition as unique cases of language acquisition that should be studied independently of L2A. A series of sequential studies support the independence of L3A from L2A.

Marx and Hufeisen (2004) claimed that L3A should not be considered equal to L2A, or even its sub-topic. Marx and Hufeisen distinguished L3A from L2A as follows:

> The term "L3 acquisition represents the prototypical concept of acquisition or learning of any language after the second language, whether as L3, L4, or even L7, as there is not merely a quantitative difference between L2A and L3A, but also a qualitative aspect. This difference is so fundamental that it needs to be covered by a new and different theoretical framework, or a substantially extended L2A model." (Marx and Hufeisen, 2004, p. 142)

Furthermore, Leung contended that L3 acquisition was not simply another case of L2A, because transfer in L3A does not always come from L1 in terms of article acquisition (Leung, 2007; Leung, 2001, 2005). Leung (2007) stated that:

> Third language (L3) acquisition was once subsumed under the field of second language acquisition (SLA), in which a 'second' language meant any non-native language acquired after the first language. In recent years, a number of researchers have started to look seriously at the phenomenon of L3/ multilingualism as a separate domain of inquiry. (Leung, 2007, p. 95)

De Angelis (2007) stated that researchers who took L3/ Ln as an extension of L2A have clearly overlooked the potential knowledge related to language acquisition by multilingual individuals, as the areas of how third or additional languages may be influenced by the previously acquired languages are rarely studied. Relating to the sources of transfer, L2A and L3A are distinct, as is maintained in some studies (Cabrelli, Iverson, Judy, & Rothman, 2008; Iverson, 2010; Leung, 2007). That is to say, regarding the source of transfer from the previous languages, L3 learners have more potential for transfer at the L3 initial state.

Based on previous research, the present study highlights more clues regarding L2 interference in L3A, rather than L1 interference alone in relation to L3 English word order in affirmative and interrogative structures. If more clues of L2 Mandarin

influence are evident, L3A as a separate domain from L2A would be more convincing.

2.1.2.6 The role of L1 and L2 in L3A

Regarding L3A, it is evident that transfer occurs in some areas from either of the two previously existing systems, especially regarding lexicon and syntax. This claims that L1 and L2 transfer alone cannot explain all the observed syntactic behaviour, and both L1 and L2 grammatical properties are transferred (Flynn et al., 2004; Jakobson, 1968; Leung, 2007; Leung, 2005, 2006). On the contrary, other researchers claim that there is a very strong L2 effect in L3A (Bardel & Falk, 2007). The different views provided above are based on empirical research of certain languages. We cannot simply come to the conclusion that L3A is absolutely influenced by both L1 and L2, or solely influenced by either L1 or L2, in terms of cross-linguistic interference. Therefore, this creates the need for further research in the present study regarding L3A.

Krashen (1981) viewed L1 as a resource, and suggested that learners may use L1 when initiating utterances if they lacked skill in the target language. To acquire L3, the learner might use L1 as the strategy to overcome any limitation regarding sequential language acquisition. Ellis (1985) supported that L1 is a resource of knowledge that learners may use to facilitate input and improve their performance with regard to L3 learning.

Comparatively, Flynn et al. (2004) proposed CEM for multilingual transfer. The model claims that all previous linguistic knowledge, both L1 and L2, can potentially modify the course of L3A at the syntactic level. In contrast to CEM, the ‘L2 status factor’ theory by Meisel (1983) supports that L2 plays a significant role in L3A. Bardel and Falk (2007) have different views. Based on Hammarberg (2001) work on the L3 lexicon, Bardel and Falk (2007) claimed that L2 morphosyntactic transfer into L3 is not only a possible factor, but a privileged one at the initial state of L3A.

2. 2 Related theories

This section reviews the following related theories: language transfer theory (2.2.1); cross-linguistic influence (2.2.2); error analysis (2.2.3) and; interlanguage (2.2.4).

2.2.1 The language transfer theory

When studying cross-linguistic influence in L3A, it is crucial to introduce the language transfer theory. Concerning language transfer, Lado (1957) suggested that L2 learners are almost entirely dependent on their native language in the process of learning the target language. That is, differences make learning difficult, and similarities make it easier. Lado (1957) further elaborated that "Elements that are similar to the learner's native language will be simple, and those areas that are different will be difficult" (Lado, 1957, p. 2).

Transfer has two types: positive and negative. Positive transfer happens when previous learning supports new learning, but negative transfer occurs when previous learning hinders new learning. Accordingly, interference is a negative influence from L1 regarding performance in the target language L2 (Lado, 1964). However, according to James (1980), transfer is interference, and may also inhibit learning.

On the other hand, Dulay and Burt (1974) almost totally rejected the significance of transfer in the creation of interlanguage. Corder (1992) suggested that 'transfer' belongs to the school of behaviourist learning theory, and transposed instead the use of the term 'mother tongue influence'. Odlin (1989) defined transfer as "The influence resulting from the similarities and differences between the target language and any other languages that have been acquired previously" Odlin (1989, p. 27). Gass (1988) defined transfer as "Use of the native language's information in the acquisition of an additional language" Gass (1988, p. 384). Until the 21st century, Brown and 吳一安 (2000) elaborated that "Transfer is a general term describing the carryover of previous performance or knowledge to subsequent learning" Brown and Wu (2000, p. 102). These authors maintained that L1 transfer can be a positive influence facilitating additional language acquisition, but it also can be a negative influence causing errors for additional language acquisition.

There were some other experimental studies regarding positive transfer and negative transfer of the previous languages on L3A. For instance, in an overview of Lado (1957), Schuster (1997) indicated that English learners of German, or German learners of English, were destined to enjoy positive transfer, because the two languages have many similarities. On the other hand, if the two languages are different, learning may be more difficult, and negative transfer might occur during the acquisition process.

Besides, the theory of cross-linguistic influences was also proposed to account for the influences of the previously acquired languages on the acquisition of L3. Therefore, the next section explicates the role that cross-linguistic influence plays on L3A.

2.2.2 Cross-linguistic influence

Cross-Linguistic Influence (CLI) is a term originally created by Sharwood Smith and Kellerman (1986). "CLI includes all concepts regarding the phenomena of language influence such as 'transfer', 'interference', 'avoidance', 'borrowing', and the L2 related aspects of language loss (Sharwood Smith and Kellerman, 1986, p. 1)". It was stated previously that L3A could be not only L1 transfer to L3, but also the variant L2 transfer to L3, as all the prior language knowledge the learner has acquired can activate the language that is being acquired. In other words, another language that a learner is studying, which is not their native language, may affect learning of the L3 language.

Cross-linguistic influence emerges from a psychological point of view, seeking to explain how and under what conditions prior linguistic knowledge influences the production, comprehension, and development of a L2 status (De Angelis, 2007). In the light of L2A, it discusses mainly how a learner's native language system may interfere with the acquisition of L2. L1 is the learner's only knowledge of a prior language system, and the learner may transfer many features of L1 until achieving proficiency in L2 (Tremblay, 2006). However, the study of L3A deals with two prior language systems, and the learner has to decide whether to select the L1 or L2 system as the source language (Cenoz, 2001).

In CLI, one of the most investigated factors attributing to interference is 'language distance or typological distance'. In past decades, L3A at the morphosyntactic level was studied in the light of language distance. Jessner (2006) investigated typological distance and the acquisition sequence (i.e., the order in which languages were acquired) in the context of Spanish-English bilingual students who studied Portuguese as L3. The findings indicated that the linguistic similarity between the languages overrode the acquisition sequence. Regarding the acquisition of word order, Odlin (1989) analysed and interpreted the research by showing the many ways in which similarities and differences between languages may influence the acquisition of grammar, vocabulary, and pronunciation.

Researchers of L3A expressed an interest in researching UG in Chomsky's presentation of L3A (Chomsky, 1986, 2014a, 2014b). It is regarding two models of morphosyntax: The Cumulative Enhancement Model (CEM) by Flynn et al. (2004), and the Typological Primacy Model (TPM) by Rothman (Rothman, 2010, 2011). CEM argued that transfer into L3 can come from any previously acquired language, and transfer from L1 or L2 can be only facilitative Flynn et al. (2004). However, Slabakova and Mayo (2015) showed that transfer of a very frequent and salient property can stand in the way of complete L3A. Conversely, TPM claimed that typological distance plays the most important role in the selection of one language over another when learning an L3 language (Rothman, 2010). These two models analysed language acquisition at the initial state of L3 learners, to test the influence of their previous knowledge of non-native languages regarding L3A. That is, L3A is influenced by transfer from any prior languages, or by the typological distance among these languages.

It is pointed out in Mayo (2012), "Like CEM, TPM argues that transfer in the L3's initial state may come from any previously acquired language (L1 or L2/Ln), but unlike CEM, TPM hypothesizes that the process is constrained by either the actual typological proximity, or the perceived typological proximity [7] (psychotypology) among the three systems" Mayo (2012, p. 137). For TPM, more recent work also

[7] This refers to the way in which learners perceive similarities and differences between languages. This affects how they are able to take advantage of language transfer potential (Kellerman, 1979).

demonstrated that such priority in language typology exists and plays a role (Rothman, 2011, 2013; Rothman & Cabrelli Amaro, 2010).

2.2.3 Error analysis

This part discusses these aspects: error analysis in language acquisition (2.3.3.1); interlingual and intralingual errors (2.3.3.2) and; criticism of EA (2.3.3.3).

2.2.3.1 Error analysis in language acquisition

Error analysis (EA) was first established for L2A by Corder (1967). Before Corder proposed EA, errors were deemed as a problem that should be eradicated. Corder (1967) suggested that EA is the study of the performance of actual learners during language acquisition. It refers to how linguists study the process of language acquisition and the various strategies learners may use. Errors are considered a device that learners use and from which they can learn. Strevens (1969) hypothesised that errors should not be viewed as problems to be overcome, but rather as normal and inevitable features indicating the strategies used by learners. Gass and Selinker (1983) provided evidence of the learners' level in the target language. Some later studies contained valuable information on the learning strategies of learners (AbiSamra, 2003; Richards, 2015; Taylor, 1975).

2.2.3.2 Interlingual and intralingual errors

Regarding errors in language acquisition, there are interlingual and intralingual errors. Interlingual errors are those due to mother tongue interference, whereas intralingual errors occur within the target language (Larsen-Freeman & Long, 2014). That is, interlingual errors are those that result from language transfer and originate from the learner's native language, whereas intralingual errors are those due to faulty or partial learning of sequential languages after L1 and L2, rather than from language transfer (Brown, 2006; Gass & Selinker, 2008; Richards, 2015). Krashen (1981) viewed L1 as the source language, and suggested that learners use L1 to initiate utterances if they lack the target language.

To distinguish 'error' from 'mistake', the distinction between 'error' and 'mistake' has been made by Corder (1973) "Mistakes are the selection of the wrong

style, dialect, or variety; whereas, learner errors, result in unacceptable utterances and appear as breaches of the code" Corder (1973, p. 259).

Corder (1974) elaborated the procedure of EA as comprising five promising stages:

1. Selection of a corpus of language

2. Identification of errors in the corpus

3. Classification of the identified errors

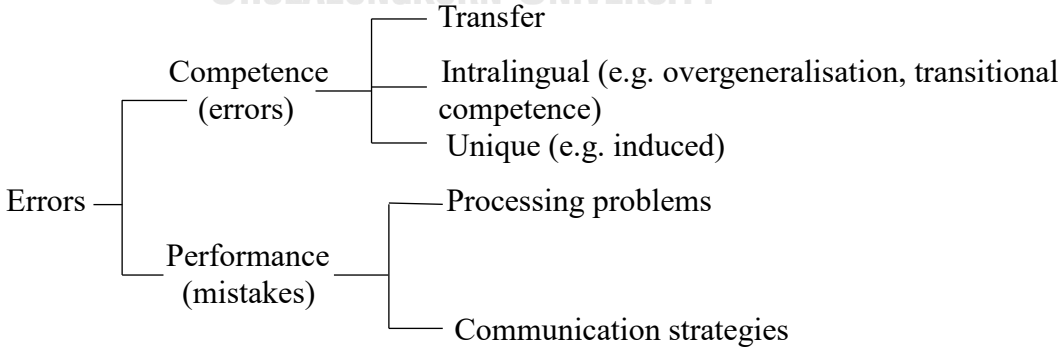
4. Explanation of the psycholinguistic causes of the errors

5. Evaluation (error gravity ranking) of the errors

The distinction between 'error' and 'mistake' is, to some extent problematic, since in performance the correct and incorrect forms of a single utterance may occur side by side.

Taylor (1986) pointed out that the source of errors may be psycholinguistic, sociolinguistic, epistemic, or may reside in the discourse structure. The error source of psycholinguistic was reviewed. As Abbott (1980) stated: "The aim of any EA is to provide a epistemic psychological explanation" Abbott (1980, p. 124). Ellis (2008) plots the different psycholinguistic sources in EA below.

Figure 1: Psycholinguistic error sources (Roderic Ellis, 2008, p. 58)



This is an explanation of the errors and mistakes in terms of the different psycholinguistic sources of errors and performance mistakes by learners. Errors are elaborated in terms of competence. They exhibit these aspects: (1) transfer refers to interlingual errors from either L1 or L2 to L3; (2) intralingual errors, such as

overgeneralisation, and transitional competence[8]; (3) unique errors[9], which are induced errors, but neither developmental errors nor interference from L1. Any deviation from the target language norms may reflect either a problem in performance mistakes or in competence errors. It is helpful to recognise the distinction between competence and performance in terms of errors and mistakes.

In identifying different sources or causes of competence errors, Richards (1989) distinguished these two sources:

1. Interlingual errors occur as a result of 'the use of elements from one language while speaking another.' An example might be when a German learner of L2 English says * 'I go not' because the equivalent sentence in German is 'Ich gehe nicht'.

Interlingual errors were further sub-divided by Lott (1983) into three categories:

a. 'Overextension of analogy' occurs when a learner misuses an item because it shares features with an item in their L1. For example, Chinese learners of English use 'table' to mean 'desk' because in Chinese a 'table' also means a 'desk'.

b. 'Transfer of structure' arises when the learner utilises some prior language features (phonological, lexical, grammatical, or pragmatic), rather than that of the target language. For example, in terms of word order, Chinese learners of English produce the sentence 'I very much miss you' instead of 'I miss you very much'.

c. 'Interlingual errors' in L3A arise when a particular distinction does not exist in the prior L1 or L2 system. For example, no distinction exists with 'make/do' in Mandarin Chinese, so the use of 'make' instead of 'do' occurs frequently by Chinese learners of English.

2. Intralingual errors 'reflect the general characteristics of rule learning, such as faulty generalisation, incomplete application of rules, and failure to learn the conditions under which various rules apply'.

[8] This refers to 'interlanguage', also called systematic errors, which was proposed by Corder (1967).
[9] Stenson (1983) refers to learners' errors 'that result more from the classroom situation than from the students' incomplete competence in English grammar (intralingual errors) or L1 interference (interlingual errors)' Stenson, 1983, p. 256).

Richards, Platt, Weber, and Inman (1986) identified various strategies that learners used and called them ‘intralingual errors’. These are presented below:

a. Overgeneralisation errors arise when a learner creates a deviant structure on the basis of other structures in the target language. This generally involves the creation of one deviant structure in place of two target language structures. For example, as the errors ‘He can sings’, whereas English allows ‘He can sing’ and ‘He sings’.

b. Ignorance of rule restrictions involves the application of rules to contexts where they do not apply. For example, ‘He asked/ wanted/invited me to go’, the majority of verbs that take infinitival complements in the sentence pattern, and thus learners may extend this pattern to ‘He made me to rest’.

c. Incomplete application of rules involves a failure to fully develop the correct structure. Thus, learners of L2 English have been observed to use declarative word order in questions. For example, Chinese learners of English produce ‘You like to sing?’ in place of the interrogative word order ‘Do you like to sing?’ This type of intralingual error corresponds to what is often referred to as an error of transitional competence (Richards, 1980).

d. False concepts hypothesized arise if a learner does not fully comprehend a distinction in the target language. For example, the use of ‘was’ as a marker of the past tense in ‘One day it was happened’. Touchie (1986) extended it with more examples. Thus, the teacher might teach that the present tense of the verb ‘be’ includes ‘am, is, are’, and past tense includes ‘was, were’. However, the learners might falsely assume that ‘am, is, are’ is the marker of the present tense and ‘was, were’ is the past tense marker. So, they produce “He is talk to the teacher”, “I am go to school”, “It was happened last night”, and “They were played in the street” and so on.

Lee (1990) categorised learner errors on the basis of the linguistic level into four types: Grammatical (morphosyntactic) errors, discourse errors, phonologically-induced errors, and lexical errors.

"Grammatical (morphosyntactic) errors, which stress the need for grammatical accuracy in both speech and writing, may hinder communication, but errors at the sentential level "often reflect performance 'mistakes', for which immediate teacher correction is not necessarily appropriate". (Lee, 1990, p. 59)

Regarding whether interlingual errors or intralingual errors take higher proportion in study of second language and additional language acquisition, there appears to be some explanations of the main findings in the previous research. Ellis (2008) stated that the learners produce more intralingual errors in origin rather than interlingual errors even though the precise proportion of errors produced varies in different studies. It is worth noting that Taylor (1975) claims more interlingual errors were produced by learners at an elementary level rather than learners at an intermediate or advanced level. Comparatively, he further found that the intermediate and advanced learners produced more intralingual errors than the learners of elementary level. For instance, the intermediate and advanced learners produced more intralingual errors of overgeneralization. Kellerman (1983) also proved the view that the beginner and elementary level learners show more prevalent interlingual errors in acquisition of the second and additional languages.

However, whether interlingual errors or intralingual errors take a higher proportion is not simply contributed to learners' various language proficiency levels. The tasks styles which are used to elicit samples of learner language also affect the proportion of interlinguala and intralingual errors. Lococo (1976) exemplified that translation tasks are intended to elicit more interlingual errors than tasks of free composition writing. Ellis (2008) found that acquisition of some grammatical areas is more likely to be influenced by L1 than other languages by learners of various proficiency levels. Adult learners produce more interlingual errors than intralingual errors than child learners, as shown in the study of White (1977), 21 % of the errors made by adult Spanish learners of English were interlingual errors.

Based on the aforementioned theory regarding EA, conducting error analysis is one of the best ways to describe and explain errors in L3A. EA can reveal the source of these errors and the cause of frequent occurrence.

2.2.3.3 Criticism of EA

As discussed above, EA is widely applied in the areas of language acquisition, but has been criticised from some aspects:

1. EA is implemented from the point of view of the researcher, without considering the learner's actual learning process.

2. EA only concentrates on sentences with errors and neglects correct sentences. It does not treat the learners' language as a whole product (Ellis, 1994; Gass & Selinker, 2000; Larsen-Freeman & Long, 2014).

3. When L2 or additional language learners have difficulty using certain structures, a common phenomenon that is embedded in them, is that they avoid using such difficult structures. Thus, embedded but avoidant errors cannot be traced.

4. In early stage of EA, it deemed that correct usage is equivalent to correct rule formation, which might not be the case due to limited sampling bias (Gass & Selinker, 2000).

2.2.4 Interlanguage

This part reviews two areas with respect to interlanguage: definition of interlanguage (2.2.4.1) and; psycholinguistic processes in interlanguage (2.2.4.2).

2.2.4.1 Definition of interlanguage

Regarding the interlanguage (IL) theory, Nemser (1971) describes it as "the deviant linguistic system actually employed by a learner when attempting to utilise the target language" (Nemser, 1971: 116). Later, Selinker (1972) coined the terms 'interlanguage' and 'fossilisation', and related IL to the linguistic system by an adult L2 learner. Selinker (1974) defined IL as "a separate linguistic system based on the observable output that results from a learner's attempted production of a target language norm" (Selinker, 1974, p. 35).

It noted that utterances produced by a learner in a given situation are different from those that native speakers would produce had they attempted to convey the same meaning. In addition for the term 'interlanguage', other terms are used to describe the same phenomenon regarding additional language acquisition, including

‘approximative systems’ by Nemser (1971), and ‘idiosyncratic dialects’ by Corder (1971). Nowadays, the term ‘language learner language’ is preferred, both formally and functionally, relative to the target language and the learner’s native language (Troike, 2006).

According to Machida (1995), interlanguage actually refers to the learner’s language from their perspective. “With the invention of the term ‘interlanguage’, the learners’ language was given a status equal to L1 and the target language” (Machida, 1995: 36). Brown (2012) referred to IL as “the separateness of a second language learner’s system by a system that has a structurally intermediate status between the native and target languages” H. Brown (2012, p. 256). Furthermore, Tarone (2010) viewed IL as a separate linguistic system that was clearly different from the learner’s native language and the target language being learnt, but linked to both the native language and the target language by the interlingual identification from the learner’s perception.

2.2.4.2 Psycholinguistic processes in interlanguage

Selinker (1972) identified the psycholinguistic processes that shaped learner language, by explaining how learners set up interlingual identification across linguistic systems that accounted for the troubling tendency by adult learners to stop learning. The five main psycholinguistic processes are stated as follows, and examples cited from (Tarone, 2012).

1. Language transfer. This refers to the use of ‘language transfer’ rather than ‘interference’, stressing the active role of the learners in language acquisition. Selinker suggested that the learners make ‘interlingual identifications’ when approaching the task of learning a second or additional languages. Tarone (2012) exemplified that learners may perceive the native language word ‘table’ as exactly the same as the target language word ‘mesa’, and develop an interlanguage in which mesa can be used in expressions like ‘table of contents,’ ‘table the motion,’ and so on Tarone (2012, p. 748).

2. Overgeneralisation of target language rules. This is the process whereby the learner shows evidence of having mastered a general rule, but he does not yet know

all the exceptions to that rule. For example, the learner extends the past tense marker '-ed' morpheme to both regular and irregular verbs alike: walked, wanted, hugged, laughed, *drinked, *bitted, *goed. These errors show the learner is making progress, in that it shows that the learner has mastered a rule of the target language, but it also shows what the learner has yet to learn.

3. Transfer of training. This is relevant to the effect of improper teaching methods by the teacher, which may cause negative transfer regarding a student's language acquisition. For example, a lesson plan or textbook that describes the past perfect tense as the 'past past' can lead the learner to use the past perfect in error for the absolute distant past – for all events that occurred long ago, whether or not the speaker is relating these to more recent or foreground events, as in the isolated statement example, *'My relatives had come from Italy in the 1700s.' These have also been called 'induced errors.'

4. Strategies of learning. This refers to a learner's conscious attempt to master the target language. One such learning strategy is the conscious comparison of what is produces in IL in the mother language and the perceived target language, by setting up interlingual identifications. For example, the learner's use of mnemonics to remember the target vocabulary, memorising verb declensions or textbook dialogues, the use of flash cards, and so on. These strategies might be successful, but they can also result in errors.

5. Strategies of communication. This refers to a learner's attention regarding the various strategies to communicate for the purpose of conveying meaning by using the interlanguage system. For example, if the learner wants to refer to an electrical cord in English and does not know the exact lexical item to use, he can call it 'a tube,' 'a kind of cord that you use for an electrical thing I do not exactly know the name,' or 'a wire with a plug at the end.'

These five processes show that IL is a systematic process when acquiring additional languages. Research evidence shows that all five of these psycholinguistics processes may affect the construction of interlanguage, and a call for further research went out (Tarone, 2012).

2.3. Previous Studies of L3A regarding word order

This section reviews previous studies of L3A with respect to word order in and out of the context of China. Regarding previous studies of word order in the context of China, only limited research has been conducted.

Xiang and Cao (2006) compared and contrasted Yi and English at the morphosyntactic level. The key differences were these aspects. There are no relative pronouns, interrogative pronouns, and conjunctional pronouns in Yi. Sentences with prepositions in Yi have the S+O+V+P word order, but the word order in English is the S+V+P+O structure. As stated above, this study has clarified the differences between English and Yi mainly at the grammatical level. The differences indicated between Yi and English are helpful to compare the word order of these two languages at the syntactic level.

Yang and Qi (2013) contrasted modifier-noun constructions in Dai, Mandarin, and English in the case of ethnic Dai students' L3A. According to the typology theory, Dai, Mandarin, and English follow the S+V+O word order, but have some distinctions in word order. The focus of this study compared and analysed some types of modifier-noun constructions in these three languages. The participants were five Dai ethnic students. Interviews were used to investigate the cognitive process of L3 English acquisition at the morphological level. The results indicated that the Dai language complies with the universal and implicational principles stated by Greenberg (Greenberg, 1963). Comparatively, all modifiers are preposed in Mandarin, and both prepositive and postpositive attributes are used in English. Therefore, Dai students who are fluent speakers of Dai and Mandarin, and knowing the similarities and differences from the contrast and analysis of the modifier-noun construction among the three languages, have an advantage for L3 English acquisition. The knowledge of the morphological differences in the three languages presented in this study helps examine the problems embedded in the sentence structures.

Xu (2012) studied negative syntactic transfer by Tibetan students regarding L3A. This study aims to find out the most common syntactic errors in English learning by Tibetan students in terms of the word order of the 'there be' structure and copula 'be' in L3 English. This explores the phenomenon of negative syntactic transfer from

previously acquired languages (Tibetan as L1 and Mandarin as L2) to L3 English. The participants were 85 Tibetan students at a high school. Using a written task, translation task, and an interview, this study detected the most common syntactic errors in the written task. The results by all the participants indicated that L2 Mandarin has a greater influence than L1 Tibetan for L3 English acquisition. However, participants with a lower proficiency level committed more omnipresent errors than participants with a higher proficiency level. This study is not directly related to L3A of English word order, but it is helpful research for studying L3 English acquisition in the context of minority languages in China. The findings drawn from this study of L2 Mandarin's influence on L3 English acquisition offer new consideration for word order of L3A in a broader language context.

Compared with the previous limited studies regarding morphosyntactic structures in L3A conducted outside the context of China, these studies are concerned with the acquisition of word order in L3, and a variety of languages were used to explore the phenomenon in L3A.

Şimşek (2006) studied L3A of English word order by Turkish-German bilingual students in a German educational setting. This study focused on the influence of the structure or word order in Turkish and German on the students' syntactic organisation of English. This study is a combination of qualitative and quantitative data utilising various instruments. The qualitative data included written texts and classroom recordings by the students, and interviews conducted with the instructors. Quantitative data was collected by a C-test, and a language background questionnaire. All the participants took a proficiency test in Turkish, German, and English. The results indicated that for the acquisition of L3 English word order, Turkish-German bilingual students rely on their knowledge of L2 German more than L1 Turkish in relation to the source of cross-linguistic influence.

This study is concerned with the acquisition of word order in L3 English, and the languages discussed in this study are from different language families. This set a good model for studying L3A from the following aspects: instruments' design, use of language proficiency tests in three languages, a combination of qualitative and quantitative assessment, review of the study of L3A, and the introduction of

approaches to the study of word order in L3A. Based on the syntactic structures presented in Turkish, German, and English, this study extends the scope of word order in L3A in a broader linguistic context.

Grümpel (2009) conducted a study focusing on the acquisition of word order in L3 German by adult native speakers of Spanish and English as L2. This was a contrastive study on language acquisition by children and adolescents using a longitudinal study and transversal tests. Based on generative analysis, a theoretical framework was proposed for verb placement in German by following the underlying SOV word order initiated by Koster (1975) and Den Besten (1983). The free oral and written production tasks were conducted by Spanish undergraduate students at intermediate and advanced levels. Production of the subjects based on the underlying SVO word order was analysed. The child and adolescent data showed that the hierarchy of difficulty is SVO-SOV-VSO. The study by Grümpel was a representative work exploring the acquisition of word order in German as L3 at the syntactic level. Particularly, a one-year longitudinal study and supplemental transversal tests were used with three experimental groups of different proficiency level students of L3 German.

Rothman (2010) examined the related domains of syntactic word order and relative clause attachment preferences in L3 Brazilian Portuguese (BP). Using controlled and experimental groups, this study presented empirical evidence from the latter part of the initial state of L3 BP by native speakers of English and Spanish, who had attained an advanced level of proficiency in either English or Spanish as their L2. The study covered L3 transfer at the syntactic level by comparing SV and VS word order in three languages produced by speakers of L1/ L2 English or Spanish, for L3 BP. The results indicated that Spanish was transferred by both experimental groups, irrespective of the L1 or L2.

Falk and Bardel (2010) investigated syntactic transfer from L1/ L2 to L3 by comparing the word order of object pronouns in German, English, and French. Data was obtained from 44 students of German as L3, by testing placement of the object pronouns in main and subordinate clauses in a grammaticality judgement task (GJT) (sixty grammatical and ungrammatical main and sub-clauses with object pronouns).

Object placement is pre-verbal in French and post-verbal in English. However, in the target language German, the object placement varies between pre-verbal in a sub-clause and post-verbal in a main clause. The three languages studied have a different word order rules, and the GJCT results showed that the two groups behave differently regarding acceptance and rejection of the test items. This difference is significant and can be ascribed to their L2s, respectively.

The aforementioned studies were concerned with L3A at the morphosyntactic level. To some extent, these studies depicted the phenomenon of L3A by comparing and contrasting the morphological and syntactic similarities and differences among different languages. However, the studies conducted in the context of China were related to L3A at the morphological level; many studies previously conducted outside the context of China were in relation to acquisition of word order in L3, but the languages studied were mainly from the Indo-European language family.

The present study is different from previous studies from two dimensions: (1) The languages studied in the present study are from different language families. That is, English is a language of the Indo-European language family, but Mandarin and Yi are languages of the Sino-Tibetan language family, which have a typological distance from English. By studying a variety of languages from different language families, new findings regarding L3A are examined. (2) The related theories of cross-linguistic influence, error analysis, and interlanguage were applied to explore the phenomenon of word order in L3A, by focusing on affirmative and interrogative structures, rather than the structures used in the previous studies.

2.4. Word order of affirmative and interrogative structures in English, Yi, and Mandarin

Word order refers to the different ways in which languages arrange the constituents of sentences relative to each other (O'Grady, Dobrovolsky, & Katamba, 1997). According to Hudson (2000), word order is one of the three essential aspects of syntax, which includes grouping, function, and word order. Word order plays an important role in structuring information in a sentence. Gershkoff-Stowe and Goldin-

Medow (2002) stated that “Word order is one of the primary devices languages offer speakers to express who does what to whom” (Gershkoff-Stowe & Goldin-Medow, 2002, p. 377). The study of word order has long aroused the interest of linguists (Bloomfield, 1933; Gershkoff-Stowe & Goldin-Medow, 2002; Tomlin, 2014). Tomlin (2014) clarifies that there are six theoretically possible basic word orders for transitive sentences: SVO, SOV, VSO, VOS, OSV, and OVS. However, the majority of the world’s languages are either SVO or SOV.

This section describes the word order of affirmative and interrogative structures in English, Yi, and Mandarin. It includes: word order of affirmative and interrogative structures in English (2.4.1); word order of affirmative and interrogative structures in Yi (2.4.2) and; word order of affirmative and interrogative structures in Mandarin (2.4.3).

2. 4.1 Word order of affirmative and interrogative structures in English

Word order in English is SVO, but changing the word order can change the meaning of the sentence. According to Berry (2013), English is an SVO language. That is, transitive clauses tend to have the basic order of Subject-Verb-Object. Nelson and Greenbaum (2015) described English sentence types and word order, and provided an explicit description of English grammar. Based on Nelson and Greenbaum (2015), this part describes English grammar from two aspects: English sentence types, and basic English word order.

2.4.1.1 English sentence types

Four major English sentence types are discussed.

1. Declarative sentences. This is a statement that conveys information.

E.g. She was attracted to an open-air job.

The new proposals have galvanised the normally disparate community into a potent fighting force.

2. Interrogative sentences. This is a question that requests information.

E.g. Do you have your own personal computer?

Where will you be going for your holiday?

3. Imperative sentences. This is a directive requesting action.

E.g. Open the door for me.

Take a seat.

4. Exclamatory sentences. This is an exclamation expressing strong feeling.

E.g. How well you look!

What a large piece you've given me!

2.4.1.2 Basic English word order

Affirmative and interrogative sentences have two basic sentence types, and these two structures are introduced below.

Regarding affirmative structures, there are seven basic sentence structures introduced as follows.

1. Subject+ Intransitive verb

E.g. Someone is talking.

The sun rises.

2. Subject+ Verb+ Adverbial complement

E.g. My parents are living in Chicago.

You should put the chicken in the microwave.

3. Subject+ Linking verb+ Subject complement

E.g. I feel tired.

The food tastes good.

4. Subject+ Transitive verb+ Direct object.

E.g. We have finished our work.

He has a house.

5. Subject+ Transitive verb+ Indirect object+ Direct object

E.g. She has given me the letter.

Ruth gave my son a birthday present.

6. Subject+ Transitive verb+ Direct object+ Adverbial complement.

E.g. You can put your coat in my bedroom.

I will throw the box into the dustbin.

7. Subject+ Transitive verb+ Direct object+ Object complement

E.g. You have made me very happy.

The heat has turned the milk sour.

Interrogative structures are categorised into five types: Yes-no questions, Wh-questions, declarative questions, tag questions, and rhetorical questions. Yes-no questions and Wh-questions are used most frequently, so these two types are sub-divided and described with examples.

1. Affirmative Yes-no question “Auxiliary/Modal verb+Subject+Verb+Object”

E.g. Do you remember my little blue car?

Can I get you a sandwich?

May I use your computer?

2. Negative Yes-no question “Auxiliary verb+ Negative particle+ Subject+ Verb+ Object”

E.g. Doesn’t he have a sister called Jane?

Don’t you have a ticket?

Aren’t you going to the shopping mall today?

3. Wh-question (Wh-word as the subject) “Wh-word+ Verb+ object”

E.g. Who has taken my car?

Which bus goes to Chicago?

4. Wh-question (Wh-word as the object) “Wh-word+ Auxiliary verb+ Subject+ Verb”

E.g. What is the time now?

How did you get up here?

Why should the government cut income taxes?

2.4.2 Word order of affirmative and interrogative structures in Yi

The Yi language is a branch of the Tibeto-Burman language group, which is a language group within the Sino-Tibetan language family. Zhu (2005) clarified that the Yi language[10] has six dialects, with 26 sub-dialects spoken by the Yi people in accordance with their geographical distribution across China. The six dialects are the northern dialect, the eastern dialect, the mid-eastern dialect, the south-eastern dialect, the western dialect, and the mid-western dialect. For comparison of the sentence structures used by Yi speakers of the different dialects and sub-dialects, Zhu (2005) indicated that the syntactic structures in Yi are the same among the different dialects, but with slight differences existing in some sub-dialects. These differences do not affect communication among Yi people who speak different dialects. The Yi language is characterised by the S+O+V word order, which is typically different from other Sino-Tibetan languages, such as Mandarin Chinese. To some extent, Zhu’s study guides the present study in relation to the participants’ Yi language use at the syntactic level.

Chen et al. (1985) explicitly described the syntactic structures in the Yi language in terms of phrases, sentence components, and sentence word order. The sentence components in Yi are Subject, Verb, Object, Attributive, Adverbial, and Complement. That is, the main sentential S+O+V word order structure is fixed across all six dialects. However, the Attributive and Adverbial are changeable according to the head word that it modifies. According to Chen et al. (1985), the description of affirmative

[10] Yi language is a cross-border language, but clarification of the six dialects only refers to the Yi language spoken in China. The Yi language spoken in south-east Asia is excluded.

and interrogative structures at the syntactic level in the Yi language is summarised as follows:

Affirmative structures. Concerning the focus of the present study, only simple affirmative structures are described. There are 14 types of simple structure in the Yi language, and briefly described in the examples below. When exemplifying each structure, the word order for Chinese Pinyin, Yi, and English is provided sequentially.

1. “Subject+ Verb (intransitive verb)”

E.g. ta lai la.

he comes As.pt.

He has come.

2. “Subject+ Compound predicate”

E.g. ta neng tiao guoqu.

he jump over can M.pt.

He can jump over.

3. “Subject+ Object+ Verb”

E.g. wo kanchai qu.

I wood cut go to M.pt.

I go to cut wood.

4. “Subject+ Direct object+ Indirect object+ Verb”

E.g. ta gei le wo yixie shu.

he book some I give M.pt.

He gives me some books.

5. “Subject+ Indirect object+ Direct object+ Verb”

E.g. wo gei haizi fan chi.

I child food Agt.pt eat.

I have the child eat food.

6. “Subject+ Verb+ Complement”

E.g. yifu shaigan le.

clothes dry up As.pt M.pt.

The clothes have been dried.

7. “Subject+ Object+ Verb+ Complement”

E.g. women zaiwan daozi le.

we rice cut over M.pt.

We have finished collecting the rice paddy.

8. “Attributive+ Subject+ Verb”

E.g. zhe yizu xiaohai lai le.

Yi ethnic child the come As.pt.

The Yi ethnic child has come.

9. “Subject+ Attributive+ Verb”

E.g. nage taoqi de haizi zou le.

child naughty that one left As.pt M.pt.

The naughty child has left already.

10. “Subject+ Object+ Attributive+ Verb”

E.g. wo mai le liangben shu.

I book two buy M.pt.

I buy two books.

11. “Subject+ Verb+ Complement”

E.g. tiankong liangtangtang de le.

sky the become bright M.pt.

The sky becomes bright.

12. “Subject+ Verb+ Complement+ Adverbial”

E.g. ni zou de taichi le.

you go late too M.pt.

You go too late.

13. “Subject+ Attributive+ Verb+ Complement+ Adverbial”

E.g. ta dangzhen lai de taichi le.

he really St.pt come late too M.pt.

He really comes too late.

14. “Adverbial+ Subject+ Adverbial+ Verb”

E.g. zuijin tianqi youdian reqilai le.

recently St.pt weather the little hot up M.pt.

Recently the weather becomes a little too hot.

Interrogative structures. There are four types of interrogative structure in the Yi language, and described briefly in the examples below. Similarly, when presenting the example of each structure, the word order for Chinese Pinyin, Yi, and English is provided sequentially.

1. Structure of Verb reduplication: “Subject+ Object+ Verb+ Verb”

E.g. ta jintian laodong ma?

he today work do do Int.pt?

Does he do the work today?

2. Structure with an interrogative pronoun: “Subject+ Object+ Verb+ Interrogative pronoun”

E.g. wo qu Xichanglu zou natiao?

I Xichang Road go where walk Int.pt?

Which is the way to the Xichang Road?

3. Structure with an Interrogative particle: “Subject+ Object+ Verb+ Interrogative particle”

E.g. ni buqu xuexiao ma?

you school not go Int.pt?

Don’t you go to school?

4. Structure with an alternative question: “Subject+ Object+ Verb+ Interrogative particle + Object+ Verb+ Interrogative particle”

E.g. ni yaochi pingguo haishi xiangjiao?

you apple eat Int.pt banana eat Int.pt?

Do you eat an apple or a banana?

2.4.3 Word order of affirmative and interrogative structures in Mandarin

In contrast to the Yi language, which is a language with the main sentence structure as the S+O+V word order, Mandarin is a language with the S+V+O word order. The modern Chinese language in terms of grammar was described by Huang and Liao. Concerning the focus of the present study, a brief description of the affirmative and interrogative structures at the syntactic level in Mandarin Chinese is summarised in accordance with Huang and Liao’s study. There are a variety of sentence structures in Mandarin. By extracting examples from Huang and Liao, only simple structures concerning the present study are provided as examples (Huang & Liao, 1997, 2011).

Affirmative structures. It is also stated in declarative sentences. Affirmative structures in Mandarin generally end with the mood particle ‘le，ne，a，ma’. When presenting the example of each structure, the word order for Chinese Pinyin, Yi and English is provided sequentially.

1. “Subject+ Verb+ Object”

E.g. ta neng kefu renhe kuannan.

he difficulties overcome can.

He can overcome difficulties.

2. “Subject+ Verb+ Complement”

E.g. a. Chen Laowu quanwo hui wuzi li qu.

Chen Laowu me room the go back to persuaded.

Chen Laowu persuaded me to go back to the room.

b. ta jiaowo nazhi qianbi lai.

he me pencil a bring to asked.

He asked me to bring a pencil.

c. yeye nainai xiwang henkuai jiandao wo a.

my grandparents soon me meet hope to.

My grandparents hope to meet me soon.

3. “Subject+ Verb+ Adverbial”

E.g. a. Laoliu ba saoba fangzai men beihou le.

Laoliu broom the put door the behind.

Laoliu put the broom behind the door.

b. nainai zai chouqi li zhaodao yingbi la.

my grandma drawer the in coin the found.

My grandma found the coin in the drawer.

4. Passive voice preposition ‘bei’: “Patient+ Patient particle ‘bei’+ Agent+ Verb”

E.g. a. wo bei na chengken de yanci dadong le.

I words touching the by moved.

I am moved by the touching words.

b. ta bei jingcha gei daizou la.

he police the by taken away.

He was taken away by the police.

Interrogative structures. In Mandarin, the interrogative particle ‘ma’ is usually used to end Yes-no questions; while interrogative pronouns are needed when asking questions in accordance with the subject or object of a sentence. The structures in relation to the present study are exemplified below. Similarly, when presenting the example of each structure, the word order for Chinese Pinyin, Yi and English is provided sequentially.

1. Positive Yes-no question “Subject+ Verb+ Object+ Mood particle ‘ma/ ba /la?’

E.g. a. ni zhende yaodai wo zou ma?

you really I take away M.pt?

Will you really take me away?

b. ni mingtian nenglai ba?

you tomorrow come can M.pt?

Can you come tomorrow?

c. ta wangji wo la?

he me forgotten has M.pt?

Has he forgotten me?

2. Negative Yes-no question “Subject+ Verb+ Negative particle+ Verb+ Object+ Mood particle ‘ne/ a’ ” / “Subject+ Negative particle + Verb+ Object+ Mood particle ‘ne / a / ma’ ”

E.g. a. ni qubuqu chifan a?

you go for dinner not eat M.pt?

Don’t you go for dinner?

b. ni laoshi tongyi butongyi a?

your teacher not agree M.pt?

Doesn’t your teacher agree with you?

c. ta buchifan ma?

he food not eat M.pt?

Doesn’t he eat food?

d. ni buxihuan changge a?

you song sing not like M.pt?

Don’t you like singing?

3. Question with an interrogative pronoun as the subject. “Interrogative pronoun+ Verb+ Object+ Mood particle ‘ne/ a’ ”

E.g. a. Shui jiaoni ne?

who you is calling M.pt?

Who is calling you?

b. Shenme shiqing name zhaoji a?

what hurry M.pt?

What is the hurry?

4. Question of an interrogative pronoun as the object. “Subject+ Verb+ Interrogative pronoun+ Mood particle ‘ne/ a’ ”

E.g. a. ta zai zuo shenme ne?

he what is doing M.pt?

What is he doing?

b. ni zhaoshui a?

you who are looking for M.pt?

Who are you looking for?

Based on the description of basic word order in English, Yi, and Mandarin, the most regularly used sentence structures in English were selected to explore the production and perception errors of word order acquisition in L3 English. The affirmative and interrogative structures of English, Mandarin, and Yi discussed in the current study are presented below.

Table 3: The affirmative structure samples

No	Category	L3 English	L2 Mandarin	L1 Yi
1	Simple S+V+O	S+V+O	S+V+O	S+O+V
2	S+V+O+ to	S+V+O+ to	S+V+O+to	S+O+ to +V
3	With double objects	S+V+IO+DO	S+V+IO+DO	S+IO+DO+V
4	With a preposition	S+V+O+PP	S+PP+V+O	S+PP+O+V
5	Passive voice	O(patient)+Be+V3+ by+S(agent)	O(patient)+ by+S(agent)+V	O(patient)+ S+ Agt.pt + V
6	With an infinitive structure	S+V+to	S+V+V+O	S +O+V+V

Table 4: The interrogative structure samples

No	Category	English	Mandarin	Yi
1	Affirmative Yes-no question	Aux.v+S+V+O	S+Aux.v+V+O+ Int.pt	S+O+V+Aux.v+I nt.pt
2	Negative Yes-no question	Aux.v+Neg.pt+S +V+O	S+Neg.pt+V+O	S+O+Neg.pt+V
3	Wh-question (Wh-word as the object)	Int+Aux.v+S+V	S+V+Int	S+Int+V

2.5 Summary

In conclusion, this chapter reviewed literature in relation to L3A. Language acquisition in terms of L2A and L3A was discussed. The related theories regarding L3A were described explicitly with respect to language transfer, cross-linguistic influence, error analysis, and interlanguage. Previous studies of L3A regarding word order of English, Yi, and Mandarin were also provided. Finally, the nine structures used to explore production and perception errors in L3A were summarised in terms of affirmative and interrogative structures. The next chapter introduces the study's methodology.

CHAPTER III
RESEARCH METHODOLOGY

This chapter introduces the research methodology related to the present study. It consists of 9 sections: ethnographic background of L1 Yi and L2 Mandarin (3.1); population and samples (3.2); research instruments (3.3); validation of the tasks (3.4); pilot study (3.5); data collection (3.6); data analysis (3.7); validity and reliability of the study (3.8) and; summary (3.9).

3.1 Ethnographic background of L1 Yi and L2 Mandarin

Ethnography is a systematic approach to the study of everyday life of a social group in the social and cultural contexts (Goertz & LeCompte, 1984; Hamrnersley & Atkinson, 1983; Hymes, 2005). Vygotsky's view of learning is a social activity, whereby ethnographers can closely observe how individuals interact with people and the environment in activities in certain domains (Vygotsky, 1978). Green and Wallat (1981) pointed out that the ethnographic perspective for looking at language acquisition allows us to view both children and adults as active significant participants in the making of bilinguals and multi-linguals. According to Duranti (2009), the process of acquiring language is deeply influenced by the process of becoming a competent member of a society. Rodríguez-Brown (2009) stated that the linguistic community as a whole examined the structure of the total range of styles available to speakers through the use of sociolinguistic and ethnographic methods. Hence, using ethnographic methods to describe the subjects' language environment provides a vivid picture of the linguistic community for this study. Therefore, this part provides the ethnographic background regarding L1 Yi and L2 Mandarin.

China is a multi-ethnic dwelling country. The Yi nationality is a major ethnic minority group. Among the total population of the country, 91.59% were the Han Chinese nationality, and the other 8.41% were ethnic minority people. The Yi nationality had a population of 8.71 million people, comprising 0.65% of the total nationwide population (N. Census, 2010b). Yunnan Prince, which is a multi-ethnic

province, has 5.02 million Yi people, or 10.94 % of the total population in Yunnan Province (Y. P. Census, 2010). Obviously, the Yi ethnic group is a large proportion of the ethnic population, both nationwide and in Yunnan Province. The Yi language is the mother language used by the Yi people, and it is a representative ethnic minority language used in China.

The Yi language is a cross-border language spoken by Yi people who live mainly in Vietnam, Laos, Thailand, and south-west China. In China, Yi people mainly live in Yunnan, Sichuan, Guizhou and Guangxi provinces. The Yi language has both written and spoken forms. However, written Yi is only promoted in the Liangshan area of Sichuan Province, in the form of bilingual education of written Yi and Mandarin Chinese. In other parts of China, written Yi was compiled by the Yi writing system scheme, but not promoted as the media of instruction at school. Instead, the spoken Yi dialects were used by the Yi people living in different regions.

The majority of Yi people live in compact communities in Yunnan Province, and these are bilingual communities speaking Mandarin and Yi because of Mandarin's role as the common language nationwide, and the Yi language's role as the local community language. The majority of Yi people are capable of speaking both Yi and Mandarin on a daily basis. In daily life, Yi people interact with each other in the Yi language within their community. They hold all kinds of festivals and cultural activities in the Yi language. Therefore, Yi children are able to simultaneously acquire their mother language in the pure linguistic environment of speaking their mother language.

However, with the tendency of Mandarin Putonghua as the common language and media of instruction in many ethnic minority regions, for the purpose of teaching young children both Mandarin and their mother language, many parents started teaching their children to speak Mandarin from birth, or at a young age. The teaching media for instruction of school education from the kindergarten to the middle school level is Mandarin Putonghua. Moreover, evidence of the popularity of Mandarin is evident in the entertainment media (Internet, TV, radio programmes, newspapers, magazines, and advertisements). The active linguistic community of Yi and Mandarin encourages younger generations of Yi people to acquire both Yi and Mandarin. Thus,

the majority of Yi people, particularly the younger generation, are able to speak both Yi and Mandarin from an early age.

Nationwide, standard Mandarin Chinese, also called Putonghua, is the official language in mainland China. It is the mainstream language used nationwide. Starting from the 1950s onwards, Putonghua was promoted as the common language in the public domains and established as the media of instruction at school (Zhou & Sun, 2006). Mandarin dialects11 are also used for communication among the Han Chinese and ethnic minority groups. In contrast, ethnic minority languages are subordinate languages. They are mainly used as the mother language by ethnic minority people in their local communities. In some ethnic minority regions in China, both Putonghua and the ethnic minority languages are used as the teaching media through bilingual education. However, in most ethnic minority regions, standard Mandarin Putonghua is used as the exclusive media of instruction at school.

Therefore, Mandarin is the language that the Yi ethnic people use to communicate with Non-Yi people, and the Yi language is used as the local community language by the Yi people. The linguistic environment of speaking Mandarin and Yi is created in the majority of concentrated Yi communities. The participants in the present study were selected from the linguistic environment in which both Mandarin and the Yi language are used by Yi people in their local community. The ethnographic background of L1 Yi and L2 Mandarin for the participants were described according to a questionnaire (see Appendix F-1: Questionnaire).

According to the data from the questionnaire, all the participants considered that they spoke the Yi language as the first language, Mandarin as the second language, and learnt English as the third language. Meanwhile, they all deemed that they were fluent in speaking Yi and Mandarin in the daily communication. No participants had experience of living or studying in an English-speaking country. The majority of the participants agreed that they were poor in English, and a small number of them

[11] Mandarin dialects are diverse groups of Chinese dialects spoken in northern and southwestern China. Chinese dialects are based on standard Mandarin Putonghua, which is the particular Mandarin dialect spoken in the capital Beijing. Diverse Mandarin dialects are similar to the standard Mandarin Putonghua in lexical and syntactic levels, but many Mandarin dialects are not mutually intelligible.

reflected that they were fair in the English proficiency level. It is worth noting that no participant held a positive view that they were fluent in English. It seemed like they were not very confident of their English proficiency. Regarding the ways of learning English, all the participants learnt English through classroom instruction, and a small number of them attended English training school.

Except for the overall linguistic background of the participants described above, other factors included their linguistic contexts, and their self-judgements of influences from the prior acquired languages in L3A in terms of the degree of influences, a speaking exercise, and a translation exercise from Mandarin to English. Table 5 to Table 8 provide pictures of how the participants self-judged influences of the prior acquired languages in the acquisition of L3 English.

Table 5 presents the participants' reflection on the preferred language they used in different linguistic contexts (see Appendix F-1: Questionnaire: Item 9-10).

Table 5: Participants' preferred language used in different linguistic contexts

Contexts / Learners	At home			At school		
	L1 Yi	L2 Mandarin	Both Yi and Mandarin	L1 Yi	L2 Mandarin	Both Yi and Mandarin
Beginners	86%	0%	14%	12%	69%	19%
Upper-intermediates	78%	2%	20%	1%	92%	7%
Total	82%	1%	17%	6.5%	80.5%	13%

Based on the participants' reflection on their preference of using a certain language in the linguistic contexts of home and school, they mainly used L1 Yi at home and L2 Mandarin at school. Meanwhile, a small number of participants from the two groups switched between Yi and Mandarin at home and at school. The upper-intermediate learners preferred to use L2 Mandarin more than the beginner learners at school. Overall, all the participants grew up in a pure linguistic community where L1 Yi was used as the first language, and they were educated in a linguistic context where L2 Mandarin was used as the school media of instruction.

Table 6 summarised the participants' self-judgements of whether influences from the prior acquired languages existed or not in the acquisition of L3 English, and which prior acquired language was more influential (see Appendix F-1: Questionnaire: Item 11-12).

Table 6: Participants' self-judgements of degree of influences from the prior acquired languages in L3A

Degree / Learners	If influences from L1 Yi and L2 Mandarin on L3 English learning existed or not		Which prior acquired language is more influential	
	Yes	No	L1 Yi	L2 Mandarin
Beginners	100%	0%	84.5%	15.5%
Upper-intermediates	100%	0%	9%	91%
Total	100%	0%	46.8%	53.3%

Table 6 obviously shows that all the participants of the two learner groups agreed that they were influenced by L1 Yi and L2 Mandarin in the acquisition of L3 English. Regarding which prior acquired language was more influential in the acquisition of L3A, the beginner learners judged that they were more influenced from the mother language, whereas the upper-intermediate learners deemed that L2 Mandarin was more influential in the acquisition of L3A.

Table 7 presents the participants' judgements of influences of their mother language and L2 Mandarin in the acquisition of L3 English in case they were given a speaking exercise (see Appendix F-1: Questionnaire: Item 13).

Table 7: Participants' self-judgements of influences from the prior acquired languages in L3A based on a speaking exercise

Languages / Learners	L1 Yi	L2 Mandarin	None of them
Beginners	67%	22%	11%
Upper-intermediates	6%	85%	9%
Total	36.5%	53.5%	10%

Table 7 indicates that the majority of the participants agreed that both L1 Yi and L2 Mandarin affected in the process of conducting a speaking exercise. The beginner learners deemed that they were more influential from L1 Yi than L2 Mandarin, but the upper-intermediate learners considered that they were more influential from L2 Mandarin even though L1 Yi was also influential.

Table 8 presents the participants' self-judgements of influences of their mother language and L2 Mandarin in the acquisition of L3 English in case they were given a translation exercise from Mandarin to English (see Appendix F-1: Questionnaire: Item 14).

Table 8: Participants' self-judgements of influences from the prior acquired languages in L3A based on a translation exercise from Mandarin to English

Languages / Learners	L1 Yi	L2 Mandarin	None of them
Beginners	79%	16%	5%
Upper-intermediates	3%	63%	34%
Total	41%	39.5%	19.5%

The result from the participants' self-judgements on whether L1 Yi or L2 Mandarin were more influential in case they were asked to do a translation exercise from Mandarin to English was similar to the result from a speaking exercise.

3.2 Population and sample

This section introduces the population and sample.

3.2.1 Population

The population comprised a number of Yi ethnic minority students studying at Luohe Nationality Junior Middle School and Yuxi Normal University in the Yuxi Municipality of Yunnan Province, China. Luohe Nationality Junior Middle School is a Yi ethnic minority concentrated middle school. The majority of the students who attend this school are Yi ethnic minority students, and a small group of students are Hani ethnic minority and Han Chinese. The students at this school have at least seven

years of experience learning English[12]. Yuxi Normal University is a college that welcomes students of different ethnic status. The ethnic minority students attending this school are mainly from these ethnic groups: Yi, Bai, Hani, Hui, and Dai. The students at college level have been learning English for at least ten years. Overall, the Yi ethnic minority students comprise a large proportion of the students attending the two schools; therefore, the subjects for the present study could be selected from a large population. Furthermore, the Yi students enrolled in the two schools all study English as their third language. Thus, it is feasible to select the participants from the beginner and upper-intermediate students attending the two schools.

The Yi ethnic minority students selected for the current study speak the Yi language as their mother language. There is a variety of Yi sub-dialects used among these six dialects, but the grammatical structure of these dialects is the same, (Chen, Bian, Li, 1985). The target population in this study is exclusively from Yunnan Province. However, the grammatical structures of the participants, including the affirmative and interrogative structures studied in the current study, are the same as the overall Yi language structures, so the data from the samples are representative of the Yi language structures as a whole.

3.2.2 Sample

This study aimed to explore whether L1 Yi and L2 Mandarin were more influential in the acquisition of L3 English in terms of affirmative and interrogative structures. The participants of the beginner and upper-intermediate level groups were purposively selected by means of an English proficiency test (The standardised Oxford Quick Placement Test) and a Mandarin proficiency test (Hanyu Shuiping Kaoshi). The participants comprised sixty Yi ethnic minority students selected from the above-mentioned schools in Yunnan Province, China. The table below shows the population and the sample size.

[12] The English subject starts from Grade 3 of elementary school, which is prescribed in the Nine-year Compulsory Education System.

Table 9: The population and the sample size

Population	Sample	Proficiency level	The L3 English proficiency test	The L2 Mandarin proficiency test
Luohe Nationality Junior Middle School	30	Beginner	Quick Placement Test	Hanyu Shuiping Kaoshi
Yuxi Normal University	30	upper-intermediate	Quick Placement Test	Hanyu Shuiping Kaoshi

Thirty participants attending Grade 9 at Luohe Yi Nationality Middle School were selected as the subjects at the beginner level. They had started learning English as the third language at Grade 3 after they learned their mother language Yi and Mandarin, so they had been learning English for at least seven years at the time of conducting the present study (see Appendix A). The other thirty participants attending Yuxi Normal University were selected as the subjects at the upper-intermediate level. They had been learning English for at least ten years (see Appendix B).

The participants of beginner and upper-intermediate levels in English proficiency were selected for this study. The students whose English proficiency scores were in the score range of the intermediate level were excluded. With the interval of the intermediate level students, the beginner and upper-intermediate level participants exhibit a clear score interval and English proficiency differences. Thus, the production and perception errors of L3A in word order by the L1 Yi and L2 Mandarin learners of different proficiency levels could be analyzed objectively, and their similarities and differences in acquisition can be distinguished.

Therefore, the criteria of selecting the sample were set in accordance with the requirements of the study. The participants were selected using the following screening criteria to ensure that the information obtained was relevant and objective. Participants failing to comply with the criteria were excluded from the target population.

1. The participants have the national status of the Yi ethnic minority group.

2. The participants must be able to speak Yi fluently.

3. The participants must be able to speak Mandarin as L2 and be learning English as L3.

4. Only Yi students studying at the junior middle school level or above were selected.

5. The participants' age must be between thirteen and twenty years.

6. The participants have been learning English for at least seven years.

7. The participants must achieve the L2 Mandarin and L3 English proficiency levels required for the study.

3.3 Research instruments

Three instruments were utilised to collect the data for this study: standardised tests of L3 English and L2 Mandarin (3.3.1); data elicitation production tasks (3.3.2); the grammaticality judgement tasks (3.3.3) and; a questionnaire (3.3.4).

3.3.1 Standardised tests of L3 English and L2 Mandarin

As the purpose of the current study is to examine how L1 Yi and L2 Mandarin influence L3 English acquisition in terms of affirmative and interrogative structures, it was necessary to conduct standardised tests of L3 and L2 to select participants who were consistent at a certain proficiency level. For the study of L3A, it is important to consider proficiency not only in the target language but also in the previous languages. The proficiency tests take account of multi-competence of bilingual learners that are not owned by monolingual learners (Cenoz & Genesee, 1998; Cook, 1996; Grosjean, 1998; Herdina & Jessner, 2000). Thus, the Oxford Quick Placement Test (Version 2) and the Hanyu Shuiping Kaoshi (Level 5) were used to test the participants' L3 English proficiency and L2 Mandarin proficiency, respectively. These tests were the benchmark to divide the participants into the beginner and upper-intermediate level groups.

3.3.1.1 The L3 English proficiency test

The standardised Oxford Quick Placement Test13 (QPT) Paper and Pen (P&P) version (Geranpayeh, 2003) was used to test the subjects' proficiency in L3 English. This is a reliable and time-saving method of assessing a student's English level. The test consists of two versions with two parts in each version. The degree of difficulty is consistent in each version. Version 2 was employed in the present study. Sixty multiple choice questions covered grammar and reading skills, but listening and speaking skills were excluded in the (P&P) version. The rating scale is presented below according to (Beeston, 2000).

Table 10: QPT assessment criteria

Level	Paper and pen test score
Beginner and elementary	23 and below
Lower intermediate	24-30
Upper-intermediate	31-40
Advanced	41-54
Very advanced	54-60

By strictly following the criteria set by the Cambridge ESOL, participants scoring less than 24 were grouped into the beginner level (see Appendix A), and those scoring from 31 to 40 were grouped into the upper-intermediate level (see Appendix B). The participants scoring from 24 to 30 were excluded from this study. The word order of English affirmative and interrogative structures is the focus of the present study. Accordingly, QPT aims to test the test takers' grammar and reading ability. Therefore, QPT is a suitable tool to evaluate the participants' overall ability to use English at the grammatical level.

[13] The Quick Placement Test (QPT) is a flexible test of English language proficiency developed by the Oxford University Press and Cambridge ESOL to provide teachers with reliable and time-saving methods of assessing a student's English level. Two versions are available: A computer-based version and a paper and pen (P&P) version (Geranpayeh, 2003).

3.3.1.2 The L2 Mandarin proficiency test

The Hanyu Shuiping Kaoshi[14] (HSK) was used to test the participants' L2 Mandarin proficiency level. The participants in this study were ethnic minority students who spoke Mandarin as the L2 rather than their mother language. The HSK is designed to fully test non-native speakers' Mandarin proficiency level. Therefore, the HSK is suitable to test the participants' Mandarin proficiency in this study. The test comprises six levels, from Level 1 with the least proficiency to Level 6 with the highest proficiency in the Chinese language. The test consists of three parts: listening (45 items), reading (45 items), and writing (10 items). The total marks are 300 points, with each part having a value of 100 marks (Kaoshi, 2017) (http://english.hanban.org/node_8002.htm, 2016).

HSK Level 5 assesses the test-takers' abilities in the application of everyday Chinese. The Level 5 test is designed for students who have mastered at least 2,500 commonly used vocabulary and related sentence patterns. According to the benchmark for scoring of HSK Level 5, the test taker whose score ranges from 152 to 262 is deemed to reach a good proficiency level. The test taker who passes Level 5 can read Chinese newspapers and magazines, enjoy Chinese films and plays, and give a full-length speech in Chinese. It covers the comprehensive skills of listening, reading and writing. Listening skill is composed of short dialogues, long dialogues and monologues. The test-takers are asked to choose the best answer based on what they hear. Reading skill is composed of various passages. The test-takers are required to fill in the blank with a word or a sentence, or choose the best answer out of the four answers provided. Writing skill consists of sentences, passages and pictures. The test-takers are required to construct a sentence, write an essay using the words provided, or write an essay based on pictures (Kaoshi, 2016) (http://www.chinesetest.cn, 2017).

The HSK Level 5 was selected to test the participants' L2 Mandarin proficiency for the following reasons. According to the Chinese Language Curriculum Standard, students at the compulsory education level (Grade 1- Grade 9) are required to master

[14] Hanyu Shuiping Kaoshi (HSK) is a Chinese proficiency test which aims to assess non-native speakers of Chinese when using the Chinese in their daily, academic and professional life. It is administered by Hanban, an agency of the Ministry of Education of China.

at least 3,500 words, and be able to read and write articles of various genres (Chao, 2012). In order to evaluate whether Level 5 is the most suitable test level for the participants, three Chinese teachers who were teaching at the middle school where the participants came from were invited to assess the difficulty of the HSK Level 5. By considering the participants' average Chinese vocabulary is around 3,000-3,500 words, and their overall comprehensive reading and writing ability, the degree of difficulty for HSK Level 5 was considered to be suitable for the participants in this study. Therefore, HSK Level 5 is a feasible tool to evaluate the participants' L2 proficiency level. The score in the L2 proficiency level was used as the benchmark to select the participants from the beginner and upper-intermediate level groups (see Appendix A and Appendix B).

It is necessary to address that the participants were primarily grouped into the beginner and the upper-intermediate learners according to the L3 English proficiency test (See 3.3.1.1 on the classification of the two learner groups). The HSK Level 5 was used to test the L2 Mandarin proficiency. The participants included three learners whose scores[15] were slightly higher than the maximum range of Level 5, i.e. (262), but their L3 English proficiency was still in the range of the upper-intermediate level.

3.3.2 The data elicitation production tasks

The data elicitation production tasks consist of two tasks: the multiple choice task (3.3.2.1) and the oral production task (3.3.2.2).

According to Mackey and Gass (2012), some types of forced elicitation may be needed if researchers wish to investigate a particular grammatical structure; otherwise, they might have to wait a considerable amount of time for enough instances to occur in natural data production to draw reasonable conclusions. If too much time is consumed, changes may occur with L2 and L3 acquisition. In this study in particular, without objective design, the affirmative and interrogative structures may not be elicited in natural data production, such as free essay writing or natural

[15] The score for one participant was 273 and the score for other two participants was 268, which were not much different from the maximum range of Level 5, i.e. (262).

conversation. Therefore, the tasks were designed to elicit the participants' use of these structures by a variety of task formats.

In designing the tasks, both the target structures and distractors were fully considered to enhance the validity and reliability of the tasks. As it is a threat to the internal data's validity if there are insufficient distractor sentences, it was important to design some distractor sentences in order that the participants cannot easily guess the sentence structures to be analysed in the present study. Therefore, distractor sentences were used in the present study.

Mackey and Gass (2012) claimed that if a researcher investigated a number of structures in one study, it may be possible for the structures to serve as the distractors for each other. As nine types of sentence structure were designed for the data production tasks, the different sentence structures can be the filters for each other in this study. The distractor sentences, which were designed together with the target sentences in the single study, decrease the participants' guessing the answers from similar sentence structures. In order to maintain equivalence of the test items and distractors, forty items were designed for each task, including twenty-seven sentences with three sentences for each structure, and thirteen distractor sentences, respectively. Thus, the number of items for each structure was equivalent in each task. The same structures were placed at intervals, such that the participants might not guess easily based on the previous sentences. It is worth noting that, in designing tasks, the past tense and the third person singular were consistently used in order to control the complex tense factors and subjects and person agreement that might bias the data and results.

3.3.2.1 The Multiple Choice Task

The multiple choice task (MCT) is an assessment technique of forced choice elicitation in language tests. According to Brame (2013), the multiple choice task can be an effective and efficient way to assess various levels of learning outcomes, and the learners can choose from a set of potential answers. Using the multiple choice task, the test items can focus on a relatively broad representation of the task.

Therefore, the multiple choice task has been used extensively in recent years for assessment purposes.

In the study of language acquisition, the multiple choice task is feasible testing methods to investigate the learners' use of language for various purposes. It was considered to be an ideal test instrument for measuring learners' knowledge of grammar and vocabulary (Harmer, 2003). In addition, Heaton (1990) described the multiple choice task as a device that tests the ability to recognise sentences which are grammatically correct. In language testing, a task within a certain context can generate more reliable data. It also supported that the test items should be in context. Particularly in tasks concentrating on a certain area of grammar, a short two-line dialogue is effective. This is better than providing no context at all. As the objective was mainly to study English L3 acquisition through exploring the production and perception errors of word order in affirmative and interrogative structures, using grammar testing in the context can elicit the intended data. With full consideration of the advantages of the multiple choice task and the objective of the present study, the format of the multiple choice task is considered appropriate.

For the purpose of measuring the participants' productive knowledge about English word order, various multiple choice questions regarding the target sentence structures were designed as two-line dialogues between two speakers (see Appendix C). In the dialogue, the participants were required to answer the questions by means of choosing the sentence that best fits the dialogue between two speakers. There were four choices designed for each item in order to assess the participants' knowledge of the correct word order in English. There was only one correct English word order answer for each item, and the other sentences were filters. That is, the other choices in each item were designed in accordance with the Yi structure, Mandarin structure, and other structures16, and these sentences were distractors. Such a natural dialogue was presumed to generate natural data production of the intended structures by the participants.

[16] 'Other structures' refers to sentences of other structures not existing in Yi, Mandarin, and English. They are incorrect sentences.

Two types of dialogue were included in order to test the participants' ability to produce affirmative and interrogative structures in L3 English.

1. Dialogues aiming to elicit the affirmative structures

In this type of dialogue, the participants were guided to select the correct answers in accordance with the questions. In detail, speaker A asked a question and speaker B was guided to select the correct answer from the four choices. This was aimed to elicit the word order in affirmative structures. The instructions and example are presented in (1) below.

Instructions: Provide the answer in accordance with the question.

(1) E.g. Kim: What can you do for him?

Li: _____.

A. I can for him cook food. B. I can for him food cook.

C. I can cook food for him. D. I can food cook for him.

As can be seen in (1), regarding providing the answer in accordance with the question in the item above, the choices were designed in the word order sequence of Mandarin, Yi, English, and other structures, respectively. The participants can freely select the sentence that they considered to be correct English word order.

2. Dialogues aiming to elicit the interrogative structures

In this type of dialogue, the participants were guided to select the correct questions in accordance with the answers. In detail, speaker A was guided to select the correct question from the four choices based on speaker B's answer. The purpose was to elicit the correct word order of interrogative structures in a natural dialogue setting. The instructions and example are presented in (2) below.

Instructions: Ask a question in accordance with the answer.

(2) E.g. Kim: _____?

Li: She makes a paper airplane for me.

A. What does your sister make for you? B. Your sister makes what for you?

C. Your sister for you what makes? D. What for you your sister made?

Accordingly, as shown in (2), regarding asking a question in accordance with the answer in the item above, the choice from 'A' to 'D' was in the word order of the other structures, Mandarin, English, and Yi. The participants could be guided to select the question they deemed with correct English word order from the four choices.

Obviously, in the two types of dialogue, sentences with the word order of the study's three languages were included, together with a distractor sentence using another structure. In such a dialogue, the participants could be guided to select the sentence with the word order that they intended to use from the filters. Thus, a tendency to use the word order of a certain language can be exhibited. In addition, the examples above guided the participant how to handle the task and avoided task misunderstanding. Therefore, the participants' authentic performance of the oriented structures would be tested by the multiple choice questions.

3.3.2.2 The Oral Production Task

This task aims to investigate each participant's production errors of word order in L3 acquisition of affirmative and interrogative structures in oral form. As the previous tasks were written production tasks to explore how the participants acquired word order in the elicited written production task, the production of word order in sentence structures could not be elicited fully without a natural oral dialogue. Nobuyoshi and Ellis (1993) stated that verbal communication enables learners to activate their linguistic knowledge for use in a natural and spontaneous language, such as when taking part in a conversation. Ellis (2002) claimed that, in verbal communication tasks, the participants must choose the verbal and non-verbal resources required to perform the task. Thus, an oral production task is a necessity in order to explore each participant's production ability in a natural oral conversation.

The production and perception errors of word order in affirmative and interrogative structures were concentrated in the present study, so a focused oral task was designed to elicit the natural production of word order in these structures. Nobuyoshi and Ellis (1993) claimed that a focused oral task rather than an unfocused

task can result in some linguistic features being more prominent, and this helps the learners pay more attention to form the correct target structures. In contrast, an unfocused oral task does not give prominence to any particular linguistic feature, so the target linguistic features are not generated on purpose. Obviously, it is very important to design a focused oral task that helps present each participant's natural production of the target structures in a spontaneous oral task. Therefore, a focused oral production task regarding affirmative and interrogative structures was designed for the present study.

As both affirmative and interrogative structures were investigated in the single study, it was not possible for the participants to produce both structures in a single dialogue. Thus, a task comprising two types of dialogues was designed (see Appendix D). Part One aimed to elicit the production errors of word order for six affirmative structures. Part Two aimed to elicit the production errors of word order for three interrogative structures. In order to maintain the equivalence of the test items in each task, similar to the items in the written tasks, forty items were included in the oral task, including twenty-seven tested items and thirteen distractors items. When conducting the oral data collection, the participants were first asked to read the printed task silently and understand the meaning of each dialogue. Then, they were guided to ask or answer questions orally by following the instructions. The data was collected in a language laboratory and audio-recording was used for the whole process in order to analyse the oral data accurately and retrieve the data if it is necessary at a later stage. The researcher received permission from the participants to record their oral production.

The oral production task was scored according to the following criteria. Firstly, the answers were grouped between the beginner and upper-intermediate levels by strictly following the English word order, L1 Yi word order, L2 Mandarin word order, and sentences of other structures not existing in Yi, Mandarin and English. Secondly, any grammatical errors, other than word order errors, were not covered by this study.

The two parts are presented below.

Instructions: Please ask and answer the questions orally by following the instructions. There are two parts in the task.

Part One: Read the questions and answer them orally with complete sentences. Only answers with complete sentences are acceptable.

Examples:

(3) A: Did he submit his homework?

B: Yes. (×)

B: Yes. He submitted his homework. (√)

(4) A: Where did he put his book?

B: Under the table. (×)

B: He put his book under the table. (√)

As shown in (3) and (4), affirmative structures could be elicited in a dialogue without the researcher's interruption, and the participants could produce various sentences in their answers, and the word order they intend to use would be presented in this spontaneous oral task.

Part two: Ask a question orally to answer the underlined words in the sentence.

Examples:

(5) A: What he park in the garden? (×)

A: Where did he park the car? (√)

B: He parked the car in the garden.

(6) A: Who made cake? (×)

A: What did she make? (√)

B: She made a cake.

As shown in (5) and (6), the participants were guided to compose questions according to these sentences according to the underlined words in each sentence.

Overall, the production of word order in affirmative and interrogative structures could be elicited more naturally in a spontaneous situation. The oral tasks explored the production errors of word order from a new perspective and combined with the written tasks. Each participant's response in the two formats could exhibit how word order in affirmative and interrogative structures was used in written and oral performance. Thus, data regarding English L3 acquisition of word order would be probed to the fullest extent in such designed written and oral production tasks.

3.3.3 The Grammaticality Judgement Tasks

Grammaticality Judgement Tasks (GJTs) have been used by researchers of L2 and L3 acquisition since the mid-1970s, in order to assess the linguistic competence of language learners. GJTs are one of the most widespread data collection methods that linguists use to test theoretical claims (Tremblay, 2006). According to Rimmer (2006) "A standard method of determining whether a construction is well-formed is grammaticality judgement tasks, where subjects make an intuitive pronouncement on the accuracy of form and structure in individual decontextualized sentences" Rimmer (2006, p. 246). As Schütze (2016) stated, the use of GJTs in linguistic theory is necessary for four reasons. Firstly, the data from GJTs provides samples of the participants' reaction to various types of sentences that rarely occur in natural speech. Secondly, the researchers gather ungrammatical negative evidence that natural language data does not contain. Thirdly, regular production errors occur (e.g., slips, unfinished utterances, etc.) in grammatical production. Fourthly, they minimise the influence of the communicative and representational functions of the language.

Related to the present study, for the purpose of assessing the subjects' intuition about grammaticality/ ungrammaticality of the forms associated with English affirmative and interrogative structures, suitable GJTs were developed, as the target sentence structures cannot be generated in an unfocused test, such as free essay writing, a close test, or natural dialogue. GJTs were specially designed to test the participants' intuition of English word order in both grammatical and ungrammatical structures. The participants' receptive ability to use the correct English word order can be tested in the decontextualised sentences. For instance, the GJTs in this task were carefully and deliberately designed as English grammatical sentences,

ungrammatical English sentences of L1 Yi word order, ungrammatical English sentences of L2 Mandarin word order, and irrelevant structures on purpose.

Therefore, the participants needed to use their intuition to judge the sentence with the correct English word order. By judging their reaction to the given structures, the production and perception errors of English word order can be tested. By fully considering that the objective of this study was to explore the production and perception errors of word order in English L3 acquisition, in the form of asking the participants to judge correct sentences of English word order from ungrammatical sentences of L1 and L2 word order, the participants' production and perception errors can be fully exhibited. For these reasons, GJTs are the most suitable instrument to apply in the present study.

The GJTs consisted of forty items, twenty-seven items measured the points of interest in the present study, and another thirteen items were distractors, mainly sentences irrespective of the target structures (see Appendix E). Among nine structures to be investigated in the present study, three sentences were designed for each structure with one sentence of English word order, and two other sentences of L1 Yi and L2 Mandarin word order. Thus, the correct sentence for each structure was equivalent. Using the GJTs method, the participants were required to select the accuracy of the word order in the embedded affirmative and interrogative structures in accordance with the objectives of the present study, which is to say, the participants were instructed to indicate ungrammaticality, and correct it accordingly. Based on the participants' judgement of grammaticality and ungrammaticality of the sentences and correction of the ungrammatical sentences, their production and perception errors were fully tested.

The GJTs were scored according to the following criteria. Firstly, the number of sentences with correct English word order, L1 Yi word order, L2 Mandarin word order, and sentences of other structures not existing in the above-mentioned three languages were calculated respectively for the beginner and upper-intermediate levels. This aimed to explore the participants' perception errors of English word order in affirmative and interrogative structures. Secondly, the new sentences that the participants produced based on the original sentences that they marked with a tick

(√) or a cross (×) were grouped in accordance with L1 Yi word order, L2 Mandarin word order, and other structures. These sentences were used as the reference to analyse data on the cross-linguistic influence from L1 and L2 to L3. Any English grammatical errors, other than word order errors, were excluded from this study.

The instructions and examples of GJTs are presented in (7) and (8) below.

Decide if the following sentences are grammatical or ungrammatical in terms of word order. If you think the sentence is correct, mark with a tick (√), and if you decide it is ungrammatical, mark with a cross (×) and correct it accordingly.

(7) Jason goes to visit his grandparents every Sunday. (√)

(8) I in the morning early get up. (×)

I get up early in the morning. (Corrected)

As shown in (7) and (8), by using GJTs, the participants can distinguish the sentence structures that they deem correct, and the data production and perception errors based on their judgement of accuracy can be elicited. Sentences with the same structure are not placed in sequence, in order to reduce the possible interpretation that the sequenced order of the same structure might affect the result of data production.

3.3.4 A Questionnaire

Language transfer from previous languages to the target language should be accounted for in the study of L3A. Therefore, information regarding a learner's previous language background is important when studying acquisition of the target language. In the study of the role of prior language knowledge in multilingual language activation and inference, Berthele (2011) claimed that typological proximity of the previous languages is important to infer the meaning of cognates and non-cognates in sequential language acquisition. Thus, questioning the participants' linguistic knowledge of L1 and L2 is beneficial in order to explore production and perception errors with L3A, and provides more clues regarding L3A.

In this study, the questionnaire was a supplement to the aforementioned instruments in order to offer more qualitative data. However, the questionnaire was not used as a main instrument. It provided additional useful information regarding the

influence of prior language background in L3A. The questionnaire covered the following aspects: Previous language background, choice of L1 preference or L2 preference in L3A, and the organisation of word order in L3. A Chinese version of the questionnaire was provided to ensure that the participants clearly understood the questionnaire (see Appendix F).

3.4 Validation of the tasks

Harrison (1983) claimed that any test's validity is the extent to which the test measures what it is intended to measure. In this study, the validity test of the tasks was conducted by experts in the related areas by means of the Item-Objective Congruency Index (IOC). The experts were asked to rate the tasks according to the criteria of IOC Index (Hambleton & Rovinelli, 1986). The ratings are:

+1 means the item clearly taps the objective

0 means unsure/unclear

-1 means the item clearly does not tap the objective

According to Brown (2004), a test is acceptable when it obtains an IOC value higher than zero, but needs improvement or should be discarded if the value is less than 0.5. That is, if the IOC value ranges between 0.5-1.0, it is valid, but needs revision if the range is below 0.5. The data was calculated using Microsoft Excel 2013.

Based on the IOC standard, the validity test was conducted by an expert in each of the three related areas. One expert covered English language instruction, one had expertise in the area of ethnic minority language study, and one was a native speaker of English and a linguist. In the IOC's task format, the rating criteria of Hambleton and Rovinelli (1986) IOC Index were provided to guide the experts. The result of the validity test of the tasks and questionnaire are presented below (see Appendix G).

Table 11: Validity test results

Category	Number of items	Number of '-1'	Number of '0'	Number of '+1'	IOC Value
Task 1	120	0	8	112	0.93
Task 2	120	0	3	117	0.97
Task 3	120	0	6	114	0.90
Questionnaire	45	0	0	45	1
Total	405	0	17	388	0.95

In total, forty items in each task and fifteen items in the questionnaire were included, and three experts were invited to take the IOC, so the total number comprised 405 items in the three tasks and forty-five items in the questionnaire. The results of the validity test indicated that the objective was achieved. That is, the mean value of the tasks is 0.93, 0.97 and 0.9, and that for the questionnaire measured 1. The total mean value for all tasks was 0.95, which is within the valid range. However, items rated as '0' were unclear, so these items were revised based on the experts' recommendations. No items which were rated '-1' were found.

Overall, any problematic structures were redesigned and grammar points were adjusted based on the validity test results. The tasks were revised according to the experts' recommendations.

3. 5 Pilot study

A pilot study is a crucial procedure to ensure success of the main study. Van Teijlingen and Hundley (2001) claimed that conducting a pilot study does not guarantee the success of the main study, but it does increase the likelihood of success. Without testing the instruments on some subjects, it is risky to implement a trial directly in the main study. Therefore, conducting a pilot study can avoid wasting time, human resources, and cost. In addition, the main study can be improved, and a clear

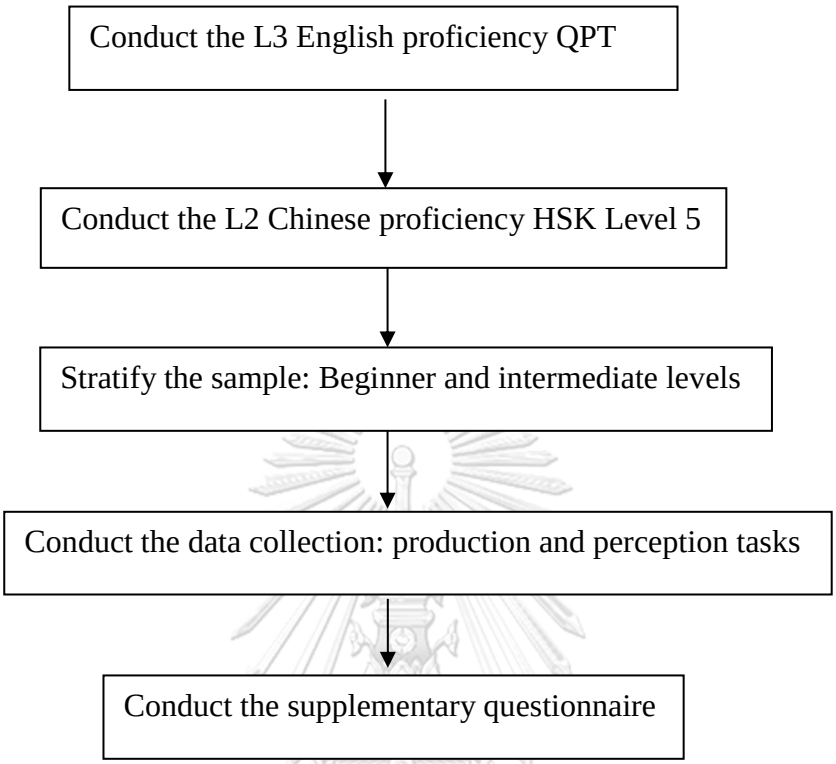
outcome achieved by suitable adjustment and addition of any missing information discovered in the pilot study.

The pilot study was conducted in the present study. The participants in the pilot study were thirty-two Yi ethnic minority students, comprising sixteen beginner level students from Luohe Nationality Junior Middle School, and sixteen upper-intermediate level students from Yuxi Normal University in Yunnan Province. The participants were divided into beginner and upper-intermediate level groups by means of an English proficiency test (the Oxford Quick Placement Test) and a Mandarin proficiency test (the Hanyu Shuiping Kaoshi (HSK) Level 5). The instruments designed for this study were a multiple choice task, an oral production task, the grammaticality judgement tasks, and a questionnaire. These instruments were fully tested in the pilot study, and major revisions and adaptations were taken for the problematic areas which were found in the pilot study. The validation process makes sure the results of main study won't be in vein.

3.6 Data collection

After the development and validation of the instruments, data collection for this study commenced. Data from the pilot study and the main study were collected by means of data elicitation tasks and a questionnaire. The data collection procedure is presented below.

Figure 2: The pilot study procedures



All the tests were undertaken in a strictly supervised environment for the whole data collection process. Before the test started, the supervisor stated that no reference and communication among the test participants is allowed. In order to avoid students' misunderstanding the prompts for each part, the supervisor explained the test format clearly. The test time was controlled. The participants were advised to complete all the items within the time limit.

In addition, a two-day interval was observed between each procedure in order to increase the accuracy of the data and avoid tiredness by the participants if handling all the tasks within one day. The tasks regarding the word order of affirmative and interrogative structures were tested by thirty-two students, with sixteen students selected from the beginner and upper-intermediate levels, respectively.

1. The L3 English proficiency QPT and the L2 Mandarin proficiency HSK Level 5 were implemented to stratify the participants into the beginner and upper-intermediate level groups.

2. Three tasks for the purpose of eliciting the data for this study were conducted. Before starting the task, the supervisor carefully described the instructions for each task. In particular, in Part 3 of the GJT, the task format was explained in detail, and examples presented before starting the test. The participants had to complete all three tasks without a break. The supervisor checked that all the tasks had been completed in full immediately after submission. In particular, any participants not correcting the ungrammatical sentences in GJT Task 3 were required to make corrections accordingly.

3. The questionnaire was answered immediately the tasks had been completed. The supervisor asked the participants to reflect their experience of handling the previous tasks by answering if either L1 Yi or L2 Mandarin had played a more critical role in their acquisition of L3 English.

During the process of completing the abovementioned tasks, including the L2 and L3 proficiency tests, the supervisor went around the classroom to check how the participants were progressing with the tasks. Any problems about misunderstanding a task's instructions were addressed and resolved immediately. After the participants had submitted their tasks, they were not allowed to leave the test centre until their tasks were confirmed as fully accomplished according to the instructions, and no blanks were allowed. If any problems were found, they were required to review the relevant task.

3.7 Data analysis

After the data were collected, it was analysed quantitatively and qualitatively with the SPSS 23 computer programme. The quantitative data focused on assessing the production and perception errors that the participants exhibited in the tasks using the following statistics:

1. Percentage

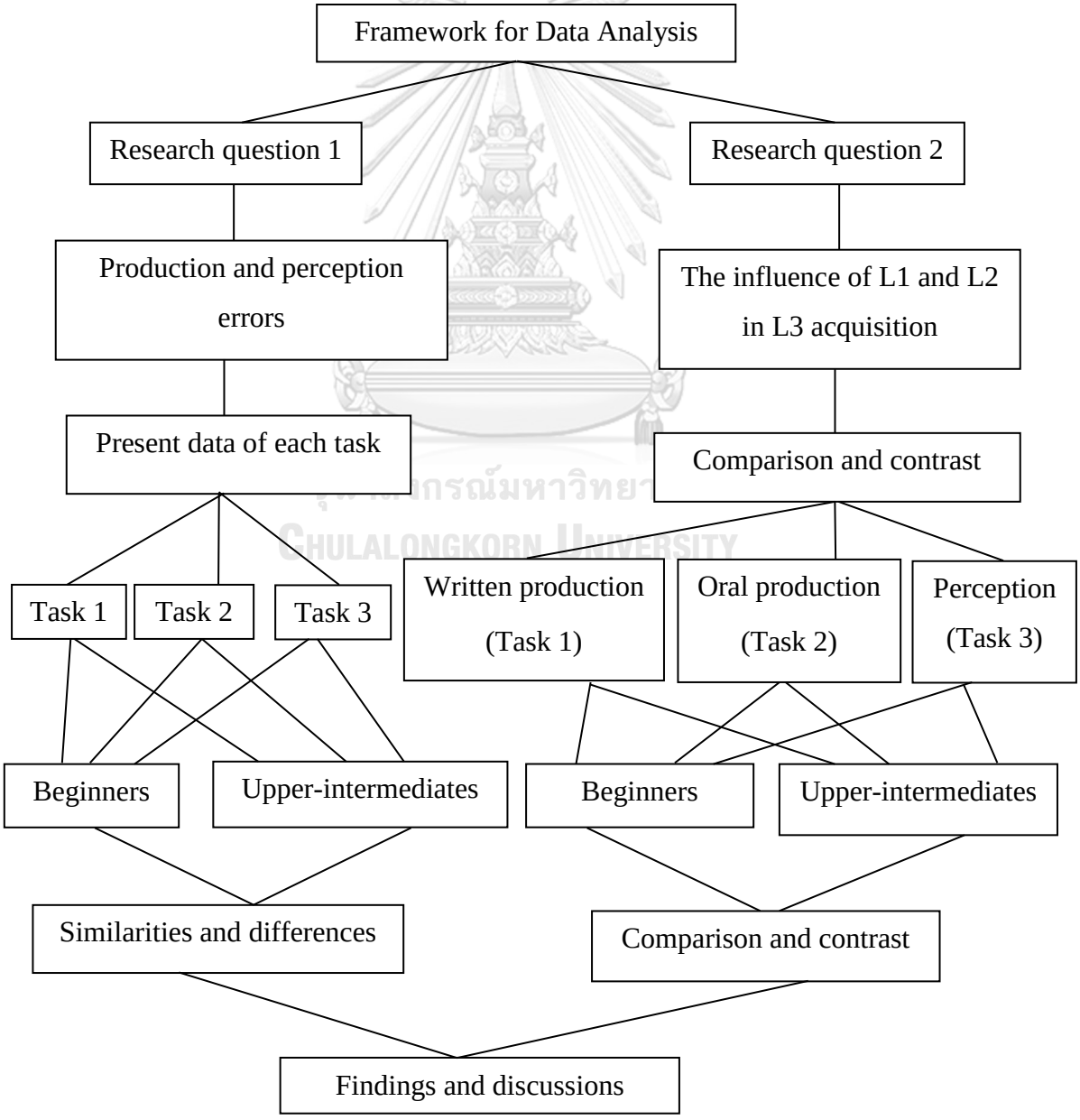
2. Frequency

3. Mean scores

The qualitative analyses were used to describe similarities and differences of the production and perception errors of word order, and the findings in the questionnaire. By using the qualitative analyses, the participants' previous language background, choice of L1 preference or L2 preference in L3A, and the organisation of word order in L3 could be described more authentically.

The data were analysed in the sequence of the answers to each research question. The following chart presents the framework for data analysis.

Figure 3: Framework for data analysis



Accordingly, the first research question was answered by presenting data of the production and perception errors that the participants at the beginner and upper-intermediate levels produced in each task. Then, similarities and differences between the two groups were compared and contrasted. After obtaining the production and perception errors that the participants displayed in each task, the second question focused on the influence of L1 and L2 in L3 acquisition by both groups of participants. To answer the second research question, the production and perception errors in the written and oral tasks were compared and contrasted using the quantitative analyses mentioned above. Finally, whether L1 Yi or L2 Mandarin is more influential for acquisition of the word order in L3 English was assessed.

It is worth noting that the oral production task was first transcribed before it was examined. Inter-rater of a native speaker was asked to rate the accuracy of word order of each sentence, and consult correct answers for multiple choice questions as reference in rating scale. The findings in the current study were discussed in accordance with the literature review.

3.8 Validity and reliability of the study

3.8.1 Validity test

The tests were validated according to construct validity and content validity. HSK Level 5 and QPT Version 2 were employed to test the participants' proficiency in L2 and L3. The participants were selected strictly based on their proficiency test results. The test process was administered, supervised, and implemented strictly according to the testing procedure. The students had to finish the test within the time limit, and without cheating. Therefore, the results of the test proved the construct validity and content validity.

The design process of the tasks fully considered some major concerns.

1. The task framework was designed carefully and applied the most popular task patterns, such as the multiple choice questions, which help the participants produce the structures efficiently and without intervention of new pattern tasks.

2. The tasks were designed with a medium degree of difficulty. The content in each task was selected carefully in accordance with the English curriculum for middle schools prescribed by the Ministry of Education in China. Overall, this overcame problems, such as the participants avoiding difficult items, or the intended structures were not fully produced.

3. In each task, only past tense and third person singular pronouns rather than other complex grammars and parts of speech were used to design sentences. Thus, the participants were not easily interrupted by complicated grammars in the process of producing correct English word order.

4. It is important to note that the vocabulary used in the tasks was familiar to the participants. The vocabulary was selected according to the recommendations of five English teachers at Chinese middle schools.

5. The participants were required to finish the tasks within the time limit, and the tasks were conducted under supervision. Thus, the participants' ability to use affirmative and interrogative structures was generated objectively and accomplished without intervention. Therefore, when designing the tasks, the researcher directly induced the participants to use affirmative and interrogative structures in the different types of task to trigger the correct production and perception of these structures. By doing so, construct validity was ensured by measuring the requirements that must be met by the participants.

6. Before the tasks were validated by three experts in the related areas by means of the Item-Objective Congruency Index (IOC), they were reviewed by three English teachers in the participants' schools in order to evaluate the degree of difficulty of the tasks in terms of vocabulary, grammar, and task pattern. Any necessary revisions were implemented based on these teachers' views. This activity allowed the participants to elicit the intended sentence structures without vocabulary concerns.

Last but not the least, the researcher is a native speaker of Yi and speaks Mandarin as L2. Therefore, the description and comparison of the grammatical structures from a more objective perspective was possible. Thus, the internal validity

of this study was assured. Thus, the construct, and content of the tasks were validated. The data obtained was more reliable after confirmation of the tasks' validity.

3.8.2 Reliability

This study aimed to examine the production and perception errors of word order in L3 English by L1 Yi and L2 Mandarin learners by means of data production and perception tasks and a questionnaire. Both quantitative and qualitative methods were employed in this study in order to collect statistical data and descriptive data at the same time, and the overview of language phenomena in L3A may be explored. Such a combination is strength of the study. This study is more reliable because of the following factors:

1. Standardised tests of L2 Mandarin and L3 English were applied in the current study. This ensured selection of qualified participants of parallel L2 and L2 proficiency level.

2. Multiple instruments were applied in a single study. Three tasks (the multiple choice questions, the oral production task, and grammaticality judgement tasks) were applied to accumulate the relevant data. The variety of the tasks facilitated cross-sectional checks of word order production by the participants, and the production errors of L3 English word order were compared and contrasted based on the different tasks.

3. A variety of sentence types were used within the single task. In total, nine types of sentences for affirmative and interrogative structures that are the most frequently used in daily life were selected to explore the production errors of English word order. These structures can be distracters or filters for each other, and can elicit more objective data from the participants. Also, the counterbalance of each type of structure was confirmed.

4. A questionnaire was applied as a supplement for data collection. It provided additional useful information regarding the influence of prior language background in L3A. The participants shared their reflections on how and why they were influenced by L1 and L2 in L3 English acquisition in their production. This information helped

analyse how the participants' prior language knowledge influenced their L3A in terms of English word order in affirmative and interrogative structures.

5. A pilot study was trialed before conducting the main study. A pilot study was conducted with a group of Yi ethnic minority students in a middle school and a college by selecting 16 students from the beginner and upper-intermediate level students, respectively. The students in the pilot study did not participate in the main study. After completing the pilot study, any problem tasks were redesigned, suitable revisions implemented, and any missing information added to ensure the reliability of the main study.

6. In the scoring the tasks, both intra-rater and inter-rater were used. After the researcher checked the tasks, mainly focusing on the word order of L3 English, it was sent for checking by a native speaker of English whose career was in the area of English language instruction.

Therefore, all the factors mentioned above ensured the validity and reliability of the study.

3.9 Summary

This chapter started with an introduction of ethnographic background of L1 Yi and L2 Mandarin, and the methodology of the study was explained. Then, the participants and criteria for selecting participants were clarified. Suitable instruments were developed, tasks validated, and the pilot study's objectives were stated clearly. Finally, data collection and analysis were implemented, and the validity and reliability of the tasks were confirmed.

CHAPTER IV
RESULTS AND DISCUSSIONS OF THE PRODUCTION TASKS

This chapter presents the results and discussions of the study regarding the production errors of L3 English word order by L1 Yi and L2 Mandarin learners. Three sections are included: 4.1 presents the results and discussions for the written production errors of L3 English word order (Multiple Choice Task), 4.2 presents the results and discussions for the oral production errors of L3 English word order (Oral Task), and 4.3 provides the conclusion of the chapter.

4.1 is divided into three sub-sections. 4.1.1 highlights the beginner learners' results and discussions for the written production errors in two parts: 4.1.1.1 focuses on the results, and 4.1.1.2 focuses on the discussions; 4.1.2 highlights the upper-intermediate learners' results and discussions in two parts: 4.1.2.1 focuses on the results, and 4.1.2.2 focuses on the discussions; 4.1.3 provides a comparison and contrast of the written production errors of L3 English word order between the beginner and upper-intermediate learner groups.

4.2 draws attention to the results and discussions for the oral production errors of L3 English word order by dividing into three subsections. 4.2.1 focuses on the beginner learners' results and discussions in two parts: 4.2.1.1 focuses on the results, and 4.2.1.2 focuses on the discussions; 4.2.2 focuses on the upper-intermediate learners' results and discussions in two parts: 4.2.2.1 focuses on the results, and 4.2.2.2 focuses on the discussions; 4.2.3 provides a comparison and contrast of oral production errors of L3 English word order between the beginner and upper-intermediate learner groups.

4.3 concludes the chapter.

In accordance with the scope and the objective of this study, the results were reported in two cases of word order in three languages (L1 Yi, L2 Mandarin, and L3 English): (1) L1 Yi≠L2 Mandarin & L3 English (L2=L3): the sentence structures that are the same as L2 Mandarin and L3 English, but different from L1 Yi; (2) L1 Yi≠L2 Mandarin≠L3 English: the sentence structures that are totally different among the

three languages. In total, nine types of sentence structures were covered, comprising six types of affirmative structures (three types for L1≠L2&L3, three types for L1≠L2≠L3), and three types of interrogative structures (L1≠L2≠L3), as shown in Table 12.

Table 12: Nine types of English sentence structures

Cases	Affirmative structures	Interrogative structures
Case 1: L1≠L2&L3	Type 1: S+V+O	-
	Type 2: S+V+O+to	-
	Type 3: S+V+IO+DO	-
Case 2: L1≠L2≠L3	Type 4: S+V+O+PP	Type 7: Affirmative Yes-no question
	Type 5: Passive voice	Type 8: Negative Yes-no question
	Type 6: S+V+to	Type 9: Wh-question (Wh-word as the object)

The data were reported by the sequence of the beginner and upper-intermediate learners' results and discussions in Task 1 (Multiple Choice Task) first, followed by the results and discussions for Task 2 (Oral Production Task). In each section, the results for the production errors of word order in the affirmative structures for Case 1: L1≠L2&L3 were presented and discussed first, followed by the results of the production errors of word order in the affirmative structures and interrogative structures for Case 2: L1≠L2≠L3. The organisation of the data presentation is explained in Table 13.

Table 13: Organisation of the data presentation

Participants	Instruments	Numbers of sentences	Error rates
Thirty beginner learners and thirty upper-intermediate learners	27-item multiple choice task (Written production)	90 items	The rates of erroneous sentences produced in the word order of L1 Yi, L2 Mandarin, or other structures.
	27-item oral task (Oral production)	90 items	
	27-item GJTs (Perception)	90 items	

In order to examine whether the L1 Yi and L2 Mandarin learners were influenced more by L1 Yi or L2 Mandarin in the acquisition of L3 English word order, the rates of erroneous sentences produced by the participants in the word order

of L2 Mandarin, L1 Yi, or other structures17 were calculated and analysed in the elicitation production tasks and the perception task. The error rates for both the beginner and upper-intermediate learners were calculated, respectively. In each task, for the purpose of eliciting the production and perception errors of L3 English word order, sentences of the following word order were designed: (1) sentences in L3 English word order; (2) sentences in L2 Mandarin word order; (3) sentences in L1 Yi word order; and (4) sentences of other structures not existing in Yi, Mandarin, and English.

This chapter aims to answer the research questions regarding the learners' production errors in the acquisition of L3 English word order:

1. What are similarities and differences between the production and perception errors of word order in L3 English affirmative and interrogative structures by L1 Yi and L2 Mandarin learners?

2. Is transfer, whether negative or positive, evidenced from L1 Yi or L2 Mandarin to L3 English? If this exists, which language, L1 Yi or L2 Mandarin, has more influence on the acquisition of word order in L3 English affirmative and interrogative structures?

As the aim of the research questions was to explore the production and perception errors of word order in L3 English affirmative and interrogative structures by L1 Yi and L2 Mandarin learners, this chapter focuses on exploring the L1 Yi and L2 Mandarin learners' production errors, and three hypotheses were posited:

Hypothesis 1: Similarities and differences exist between the production and perception errors of word order in L3 English affirmative and interrogative structures by L1 Yi and L2 Mandarin learners.

Hypothesis 2: Positive and negative transfer from L1 Yi and L2 Mandarin to L3 English is evidenced in the production of word order in affirmative and interrogative structures.

[17] Other structures refer to sentence structures which do not exist in the above-mentioned languages.

Hypothesis 3: With respect to negative transfer, the production and perception of L3 English word order of affirmative and interrogative structures are negatively influenced by both L1 Yi and L2 Mandarin. However, the negative transfer is more influenced by L2 Mandarin for learners with a higher L3 proficiency level, and more influenced by L1 Yi for learners with a lower L3 proficiency level.

Therefore, this chapter aims to answer the research questions and discuss the findings for both the beginner and upper-intermediate learners. 4.1 presents the results and discussions for the written production errors of L3 English word order (Multiple Choice Task), and 4.2 presents the results and discussions for the oral production errors of L3 English word order (Oral Task).

4.1 Results and discussions for the written production errors of L3 English word order (Multiple Choice Task)

This section presents the beginner learners and the upper-intermediate learners' results and discussions for the written production errors of L3 English word order through a multiple choice task. 4.1.1 focuses on the beginner learners' results and discussions, 4.1.2 focuses on the upper-intermediate learners' results and discussions, and 4.1.3 compares and discusses the written production errors of L3 English word order between the two groups.

4.1.1 Results and discussions for the written production errors of L3 English word order by the beginner learners

This subsection reports the results of the beginner learners' production errors of word order in the written task, and discusses the findings. 4.1.1.1 focuses on the results and 4.1.1.2 concentrates on the discussions concerning the written production errors by the beginner learners.

4.1.1.1 Results of the written production errors of L3 English word order by the beginner learners

The beginner learners' results for the written production errors of L3 English word order from the multiple choice questions are presented in the sequence of the

sentence structures of Case 1: L1≠L2&L3 first, followed by the sentence structures of Case 2: L1≠L2≠L3.

Table 14: Beginner learners' written production of L3 English word order in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%
S+V+O	17/90	18.9	1/90	1.1
S+V+O+to	10/90	11.1	1/90	1.1
S+V+IO+DO	19/90	21.1	1/90	1.1
Total	46/270	17	3/270	1.1

In this case, the word order of each sentence structure is as the same as L2 Mandarin and L3 English. The results indicated that the beginner learners exhibited low error rates in the production of L3 English word order in the affirmative structures for L1≠L2&L3. The average error rates from L1 Yi word order were 17%, and those from other structures were only 1.1%. Thus, the results showed that the beginner learners, to some extent, encountered some difficulties in producing L3 English affirmative structures since they produced errors of L1 word order in the multiple choice task. That is, they produced the highest number of errors from L1 Yi word order, particularly in the 'S+V+IO+DO' structure, in which the error rates were 21.1%, followed by the error rates of 18.9% for the 'S+V+O' structure, and 11.1% for the 'S+V+O+to' structure, respectively.

The beginner learners' results for the written production of word order in the affirmative structures for L1≠L2≠L3 are presented in Table 15.

Table 15: Beginner learners' written production of L3 English word order in the affirmative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%
S+V+O+PP	3/90	3.3	13/90	14.4	1/90	1.1
O(patient)+Be+V3	1/90	1.1	17/90	18.9	0/90	0

+by+S(agent)						
S+V+to	27/90	30	5/90	5.6	0/90	0
Total	31/270	11.5	35/270	13	1/270	0.4

In this case, the word order of these sentence structures was totally different among L1 Yi, L2 Mandarin, and L3 English. The results revealed that the average error rates from L2 Mandarin, L1 Yi, and other structures were 11.5%, 13%, and 0.4%, respectively, with the errors rates from L1 Yi ranking the highest. In particular, the error rates from L1 were as high as 18.9% in the 'O(patient)+Be+V3+by+S(agent)' passive voice structure, but those from L2 Mandarin were only 1.1% for the same structure. Conversely, in the 'S+V+ to' structure, the error rates from L2 Mandarin reached 30%, which was much higher than the error rates from L1 Yi, only 5.6%. The error rates of other structures occurred exclusively in the 'S+V+O+PP' structure, and the error rates were 1.1%.

The beginner learners' results for the written production of word order in the interrogative structures for L1≠L2≠L3 are presented in Table 16 below.

Table 16: Beginner learners' written production of L3 English word order in the interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%
Aux.v+S+V+O	4/90	4.4	22/90	24.4	0/90	0
Aux.v+Neg.pt+S+V+O	12/90	13.3	23/90	25.6	0/90	0
Int+Aux.v+S+V	6/90	6.7	17/90	18.9	6/90	6.7
Total	22/270	8.1	62/270	23	6/270	2.2

The results demonstrated that the beginner learners were more negatively influenced by L1 Yi than by L2 Mandarin in the production of L3 English word order for the interrogative structures for L1≠L2≠L3. The average error rates from L1 Yi word order in the interrogative structures were 23%, much higher than the error rates produced in the affirmative sentence structures for both cases of L1≠L2&L3 and L1≠L2≠L3. Comparatively, the proportion of the error rates from L2 Mandarin word

order was 8.1%, and the error rates from other structures were only 2.2%. In the individual sentence structures, the error rates from L1 Yi in the affirmative Yes-no question 'Aux.v+S+V+O' structure and the negative Yes-no question 'Aux.v+Neg.pt+S+V+O' structure were as high as 24.4% and 25.6%, respectively. Comparatively, the error rates from L2 Mandarin were 4.4% and 13.3%, respectively in the two aforementioned structures. Similarly, the error rates from L1 Yi and L2 Mandarin in the Wh-question 'Int+Aux.v+S+V' structure were notably different at 18.9% and 6.7%, respectively.

To sum up, the results from the multiple choice task in the three cases indicated that the beginner learners encountered some degree of difficulty in the production of L3 English affirmative structures and interrogative structures. The findings exhibited that errors in L1 Yi word order were more frequently produced than those of L2 Mandarin word order, and the errors produced in the interrogative structures were higher than in the affirmative structures.

4.1.1.2 Discussions of the written production errors of L3 English word order by the beginner learners

The findings for the written production errors of L3 English word order from the multiple choice questions are discussed in the sequence of the sentence structures for Case 1: L1≠L2&L3 first, followed by the sentence structures for Case 2: L1≠L2≠L3. The findings for the written production errors of L3 English word order were discussed in parallel with some previous research such as the Cumulative Enhancement Model (CEM) (see 2.1.3.62), the Typological Primacy Model (TPM) (see 2.1.3.3), L3A is not a case of L2A (2.1.3.5), and Cross-linguistic Influence (see 2.3.2).

As presented in Section 4.1.1.1, the results in the affirmative structures for L1≠L2&L3 showed that the beginner learners produced a low proportion of erroneous sentences in L3 English word order, and the major error rates of 17% were from L1 Yi word order, and only a small proportion of errors were produced from other structures. The lower proportion of erroneous sentences exhibited evidence of the beginner learners' partial success in the acquisition of the L3 English affirmative sentence structures. However, there were production errors evident in the multiple

choice task. Examples of the errors from L1 Yi and other structures are extracted and presented in Table 17.

Table 17: Examples of the beginner learners' errors from the written production in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting L1 word order	Errors reflecting other structures
S+V+O	S+O+V *He a pen bought. *He a book read. S+PP+O+V *He for his mom food cooked.	S+PP+V+O *He for his mom cooked food.
S+V+O+to	S+IO+DO+to+V+V *The doctor him the medicine to take advised. S+IO+V+to+DO+V *Her friend her invited to the concert go. S+V+IO+DO+to+V *The doctor advised him the medicine to take.	S+IO+V+V+O *She him asked buy some food.
S+V+IO+DO	S+DO+IO+V *He a photo her showed. *Lisa a book him give. *Rosa a secret him told.	S+IO+V+DO *Him Lisa gave a book.

Examples of the errors in the affirmative structures for L1≠L2&L3 were presented first, followed by discussions of the findings related to the previous relevant research. In the simple 'S+V+O' English structure, *'He a pen bought' and *'He for his mom food cooked' were sentences of the L1 Yi 'S+O+V" structure. That is, the object preposed the verb. In the second sentence, the preposition phrase PP 'for his mom' was followed by the subject in Yi grammar, and errors of this type were also evidenced. In the "S+V+O+to" English structure, the beginner learners chose sentences of the L1 Yi "S+O+to+V" structure such as *'The doctor him the medicine to take advised' and *'Her friend her invited to the concert go". In the 'S+V+IO+DO' English structure, the beginner learners selected sentences of L1 Yi 'S+IO+DO+V' structure such as *'Lisa a book him give' and *'Rosa a secret him told', which were good examples of Yi grammar whereby the verb is placed at the end of the sentence.

On the one hand, as Kellerman (1986) claimed that the linguistic knowledge from all the prior acquired languages can activate the additional language that is being acquired. In this case, L1 Yi, as the native language for the beginner learners, has influenced the production of L3 English in terms of the word order in the affirmative structures for L1≠L2&L3, since the sentences of L1 Yi word order were produced more frequently by the beginner learners. The evidence of L1 Yi word order such as in the 'S+O+V" structure, "S+O+to+V" structure and the 'S+IO+DO+V' structure was frequently produced in the written tasks. This proved the claim viewed by Krashen (1981) that the learners may use the resource language L1 when initiating utterances if they lacked skill in the target language. Consistently, the L1 Yi and L2 Mandarin beginner learners in this study were still at the initial stage of their L3 English acquisition18. They had not fully mastered the basic linguistic knowledge of L3 English, so the word order of L1 Yi affirmative structures might be used as the reference to facilitate the L3 English sentence production. The representation of L1 Yi word order that differentiates L3 English is "S+O+V" versus "S+V+O", and the beginner learners consistently produced such errors, showing the greater influence from L1 Yi. This could be claimed to be an interlingual error from L1 Yi word order. L1 Yi word order was used as a facilitator by the beginner learners in producing L3 English in the simple affirmative structures.

On the other hand, in the affirmative structures for L1≠L2&L3, the sentence structures are the same as in L2 Mandarin and L3 English (L2=L3), but different from L1 Yi. The results showed that the beginner learners produced a higher proportion of correct sentences from L3 English word order in this case. As reviewed in the previous study regarding the 'Typological Primacy Model (TPM) proposed by Rothman (2010, 2011, 2015), the learners transfer the typologically closer grammar properties of L1 or L2 to L3 or additional languages. Even though L2 Mandarin is a language in the Sino-Tibetan language family and English is a language in the Indo-Euro language family, they are typologically distant. However, the word order of L2 Mandarin and L3 English in these affirmative structures is syntactically the same. As

[18] English starts as a minor subject from Grade three in elementary school, but it is not prescribed as a major subject until the students attend Grade seven at junior middle school, according to the Nine-year Compulsory Education System in China. Thus, the beginner learners were still at the fundamental stage of L3 acquisition based on the standard Oxford Quick Placement Test results.

Angelis (2005) pointed out, when an L2 source is typologically distant from L3, the possibility of transfer occurs. Accordingly, when the beginner learners produced sentences of such word order in L3 English, they might be positively influenced by L2 Mandarin word order, and the production of a higher proportion of correct sentences in L3 English word order becomes possible. This also proved the claim stated by Leung (2005) that knowledge of an L2 that is typologically close to the L3 facilitates the acquisition of the L3.

Therefore, the results of the higher correct rates rather than the lower error rates in the affirmative structures for L1≠L2&L3 might be attributed to the same word order of L2 Mandarin and L3 English in these sentence structures, which may facilitate the beginner learners in producing the correct L3 English word order. Meanwhile, the interlingual errors of L1 Yi word order might be clues to the cross-linguistic influences from prior languages before fully acquiring L3 English. Presumably, it might be less difficult for the beginner learners to acquire simple affirmative structures in Case 1: L1≠L2&L3, even though there was some evidence of influences from L1 Yi and other structures.

However, the results from the written production of L3 English word order in the affirmative structures for L1≠L2≠L3 showed the lower correct rates were produced from L3 English word order, compared with the result of the higher correct rates from the affirmative structures for L1≠L2&L3. Therefore, the word order of these affirmative structures is different among the three languages, and the production of L3 English word order might not simply be influenced by L1 Yi or L2 Mandarin only, but the L1 Yi, L2 Mandarin, and other structures combined may influence the acquisition of L3 in terms of the affirmative structures. As shown in the results, the erroneous sentences produced in this case were various regarding the word order. That is, the error rates were 11.5% in L2 Mandarin word order, 13% in L1 Yi word order, and only 0.4% in other structures. The results indicated that when the beginner learners acquired the affirmative structures for L1≠L2≠L3, they were negatively influenced by both L1 Yi and L2 Mandarin. Overall, they were more negatively influenced by L1 Yi rather than L2 Mandarin.

Some examples of word order errors are presented below.

Table 18: Examples of the beginner learners' errors from the written production in the affirmative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order	Errors reflecting L1 word order	Errors reflecting other structures
S+V+O+PP	S+PP+V+O *He in the bag found it. *He under the table put them.	S+PP+O+V *He in the bag it found. *He under the bus a cat saw.	S+O+V+PP *He it found in the bag.
O(patient)+Be+V3+by+S(agent)	O(patient)+Be+by+S(agent)+V3 *It was by her grandma made. *Henry was by him beaten.	O(patient)+S+Agt.pt+V3 *It was his uncle by built. *It her sister by cleaned.	-
S+V+to	S+V+V+O *He planned watch a movie. *He liked make apple juice.	S+O+V+V+to *He Shanghai visit wanted to. *He apple juice make liked to.	-

The relevant examples of the production errors produced in each sentence were presented in order to elaborate how the beginner learners produced various erroneous sentences from these languages. Then, the findings based on their errors in the affirmative structures for L1≠L2≠L3 were discussed.

Firstly, in the English structure 'S+V+O+PP', the higher error rates of 14.4% were exhibited from L1 Yi word order, much higher than the error rates of 3.3% from L2 Mandarin. For instance, sentences with the Yi structure 'S+PP+O+V' were chosen by the beginner learners such as *'He in the bag it found' and *'He under the bus a cat saw'. These sentences are typical of L1 Yi word order, in which the preposition phrase PP follows the subject, and the object precedes the verb. Meanwhile, errors in the L2 Mandarin structure 'S+PP+V+O' were also traced to this sentence structure. For example, *'He in the bag found it' is a sentence using L2 Mandarin word order, in which the preposition phrase PP precedes the verb. In L2 Mandarin grammar, it is the rule to place the adverbial phrase before or after the subject, but it is never placed after the verb. This sentence structure is representative of the word order difference

among Yi, Mandarin, and English, with ‘S+V+O+PP’ in English, ‘S+PP+V+O’ in Mandarin, and ‘S+PP+O+V’ in Yi.

Regarding L3 acquisition, it is claimed that transfer occurs in some areas from either the L1 or the L2 linguistic system, especially for lexicon and syntax, and either of the two previously existing language system alone cannot explain all the observed syntactic behaviour, and both the L1 and L2 grammatical properties were transferred (Flynn et al., 2004; Jakobson, 1968; Leung, 2007; Leung, 2005, 2006). The results of the errors produced in the English structure ‘S+V+O+PP’ indicated consistently that both L1 Yi and L2 Mandarin influenced the acquisition of L3 English. However, a higher proportion of error rates was shown from L1 Yi in this sentence structure than from L2 Mandarin. As it was supported by Ellis (1985), L1 is a resource of knowledge that learners may use to facilitate input and improve their performance with regard to L3 learning. Furthermore, Schuster (1997) indicated that learning may be more difficult and negative transfer might occur when the prior acquired languages were different from the language being learnt. As the beginner learners were at the stage of full proficiency in L1 Yi and ‘in progress’ for L2 Mandarin acquisition, they may have preferred to apply their mother language word order in the production for the simple sentence structure in L3 English. Thus, the higher error rates of negative transfer from L1 Yi to L3 English became evident than those from L2 Mandarin.

Secondly, similarly, in the English passive voice structure ‘O(patient)+Be+V3+by+S(agent)’, the beginner learners produced the highest error rates of 18.9% from L1 Yi word order, compared with the error rates of only 1.1% from L2 Mandarin. In the written production for this sentence structure, the beginner learners chose sentences with the L1 Yi structure ‘O(patient)+S+Agt.pt+V’ such as *‘It was his uncle by built’ and *‘It her sister by cleaned’. However, the grammatical rules for the passive voice in L1 Yi are definitely different from L2 Mandarin and L3 English. In the L1 Yi passive voice, the main verb is placed at the end of the sentence without changing to V3 as it is in L3 English. In the English passive voice, ‘by’ is the indicator of the passive voice structure which connects V3 and agent via ‘Be+V3+by+S(agent)’. However, the beginner learners deemed the sentences in the

L1 Yi passive voice word order to be correct English sentences, and used those frequently in the production of L3 English passive voice sentences.

The results indicated that L1 Yi outperformed in the production of the L3 English passive voice structures. The findings concerning the English passive voice differentiated the claim made by Flynn (2009) that experience in any prior language can be drawn upon in subsequent language acquisition and that L1 does not play a privileged role in subsequent language acquisition. Conversely, L1 Yi might play a privileged role in the production of L3 English passive voice sentences, even though the evidence showed a negative effect rather than a positive effect from L1 Yi.

Thirdly, conversely, in the English structure 'S+V+to', the higher error rates of 30% were from L2 Mandarin, compared with the error rates of 5.6% from the L1 Yi by the beginner learners. The error rates produced from these sentence structures were extremely different from the previous two affirmative structures for L1≠L2≠L3. For instance, sentences in the L2 Mandarin structure 'S+V+V+O' were chosen more frequently and the 'to' infinitive was frequently omitted in these sentences such as *'He planned watch a movie' and *'He liked make apple juice'. As an equivalent to the 'to' infinitive is not required in the L2 Mandarin grammar rules, the beginner learners tended to choose sentences in the Mandarin word order without the 'to' infinitive structure. However, the use of the 'to' infinitive as the object is a basic rule in English grammar. The results from this sentence structure demonstrated that L2 Mandarin was more privileged than L1 Yi in facilitating L3 English production of the 'S+V+to' structure.

According to the Typological Primacy Model (TPM) (Rothman, 2011, 2015), the learners transfer the grammar properties from L1 or L2 that are perceived to be typologically closer to L3. Regarding the English structure 'S+V+to', Mandarin and English are languages with SVO word order, and its equivalent in Mandarin is 'S+V+V+O'. Thus, they are typologically closer for the word order of this sentence structure, whereas Yi is a language with the SOV word order, and its equivalent for this sentence structure is 'S+O+V+V', which is typologically distant from L2 Mandarin and L3 English. Accordingly, this proved the claim by De Angelis and Selinker (2001) that typological proximity is sufficient by itself to influence the

selection process in L3A. It seems like the TPM supports the results of the highest error rates from L2 Mandarin for the English structure ‘S+V+to’. Therefore, when certain syntactic structures in L3 are typologically closer to the equivalent of those in a prior acquired language, the L3 learners might be more easily influenced by the sentence structure of the previously acquired languages. The results from this sentence structure indicated that the TMP does function for the L1 Yi and L2 Mandarin beginner learners’ acquisition of L3 English in the process of the written production of L3.

In addition, in the three affirmative structures for L1≠L2≠L3, only one error of other structures was evidenced in the ‘S+V+O+PP’ structure, i.e. *‘He it found in the bag’. This might be a systematic development that the beginner learners exhibited in the acquisition of L3 English before they successfully acquired the correct sentence structure.

Therefore, based on the overall results from the three affirmative structures for L1≠L2 ≠L3, we cannot simply come to the conclusion that L3A is absolutely influenced by both L1 and L2, or solely influenced by either L1 or L2 in terms of cross-linguistic interference. The results from this case were only partially consistent with the claim proposed by Flynn et al. (2004) regarding the Cumulative Enhancement Model (CEM). According to the CEM, language acquisition is cumulative, and any prior language can either enhance subsequent language acquisition or remain neutral. The positive influence of any previous L1 or L2 language could facilitate L3A and any negative influence could be a hindrance, but L1 does not play a privileged role in subsequent language acquisition. In contrast, in this study, L1 Yi seemed to play a privileged role as a negative influence in the production of the English structures of ‘S+V+O+PP” and the passive voice ‘O(patient)+Be+V3+by+S(agent)’ in the affirmative structures for L1≠L2≠L3. On the contrary, L2 Mandarin showed a privileged influence for L3 English in the English ‘S+V+to’ structure. Therefore, based on the results of the production errors from the beginner learners’ written tasks in the affirmative structure for L1≠L2≠L3, whether L1 or L2 is privileged is not exclusively determined by any single factor.

As shown in the beginner learners' results for the written production of L3 English word order in the interrogative structures for L1≠L2≠L3, the highest error rates were 23% from L1 Yi, 8.1% from L2 Mandarin, and only 2.2% from other structure. The results demonstrated that L1 Yi was more negatively influenced than L2 Mandarin, since higher error rates from L1 Yi than L2 Mandarin were produced. Examples of the errors in each sentence structure are presented in the table below before discussing the findings, and these examples focus especially on sentences produced in L1 Yi word order, since higher error rates were produced from L1 Yi word order.

Table 19: Examples of beginner learners' errors from the written production in the interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order	Errors reflecting L1 word order	Errors reflecting other structures
Aux.v+S+V+O	S+V+O+Int.pt *He attended the concert?	S+O+V *Tony last Saturday basketball played? *He the work finished? *He the concert attended?	-
Aux.v+Neg.pt+ S+V+O	S+Neg.pt+V+O *Tom didn't live in Beijing? *She didn't return the book?	S+O+Neg.pt+V *She the book didn't return? *Tom in Beijing didn't live? *He football didn't play?	-
Int+Aux.v+S+V	S+V+Int *Mr. Harrison repaired what? *He like which?	S+Int+V *Mr. Harrison what repaired? *She which liked? S+PP+Int+V *Tom's sister for him what made?	Int+V+S *What repaired Mr. Harrison? *Which liked she?

In the interrogative Yes-no question 'Aux.v+S+V+O' structure, errors from the L1 Yi 'S+O+V+Aux.v+Int.pt' structure were frequently produced such as *'Tony last Saturday basketball played?' and *'He the work finished?'. In these examples, instead of using the 'do' movement at the first position in the sentence and the 'S+V' word

order in the following main sentence as required by the English word order grammar rule, the beginner learners chose sentences of the Yi word order, in which an interrogative particle is used at the end to ask the question.

In the negative Yes-no question 'Aux.v+Neg.pt+S+V+O' structure, the beginner learners produced the highest errors from the Yi word order compared with those produced from the other two interrogative structures. Sentences with the Yi structure 'S+O+Neg.pt+V' were chosen by the beginner learners such as *'She the book didn't return?' and *'Tom in Beijing didn't live?'. In these Yi interrogative sentences, the negative particle preceded the verb.

As the error rates produced from L2 Mandarin word order by the beginner learners were as high as 13.3% for the negative Yes-no question 'Aux.v+Neg.pt+S+V+O' structure, examples of such errors were further extracted and elaborated. For instance, sentences such as *'Tom didn't live in Beijing?' and *'She didn't return the book?' were the most prevalently produced sentences from the L2 Mandarin interrogative structure in the written task. In the Mandarin word order for the interrogative structure, the negation is inserted before the verb. Consistently, in these sentences, 'didn't live' and 'didn't return' were good examples of producing the Mandarin word order instead of the English word order structure. Conversely, the negation is moved to the first position of the sentence in English, i.e. 'Didn't she return the book?'. Since the word order for the interrogative structure in the three languages is apparently different, with the negation placed at the beginning in English, in the middle in Mandarin, and at the end in Yi, the beginner learners were more likely to employ sentence structures from L1 Yi and L2 Mandarin word order when producing L3 English interrogative structures.

Additionally, the word order for the Wh-question (Wh-word as the object) is 'Int+Aux.v+S+V' in the English structure, whereas the word order for the equivalent structure is 'S+Int+V' in L1 Yi and 'S+V+Int' in L2 Mandarin. In addition, the word order for the Wh-question structure is totally different among the three languages. However, the beginner learners produced the most errors from L1 Yi for the Wh-question. For instance, they chose sentences such as *'Mr. Harrison what repaired' and *'Tom's sister for him what made?'. These sentences were evidence of the L1 Yi

Wh-question word order in which the Wh-word precedes the verb. Meanwhile, sentences in L2 Mandarin word order were also chosen by the beginner learners such as *‘He like which?’ that follows the Mandarin word order of ‘S+V+Int’ for the Wh-question.

In terms of L3A as a different case from L2A, the findings supported the claim made by Leung (2001; 2003; 2007) that L3 acquisition was not simply another case of L2A because transfer in L3A does not always come from L1 in terms of article acquisition. In the beginner learners’ written production results, errors were frequently produced not only from L1 Yi but also produced from L2 Mandarin word order. Evidence of the negative influence from L2 Mandarin word order was frequent such as in the negative Yes-no question ‘Aux.v+Neg.pt+S+V+O’ structure in the Mandarin word order. Therefore, with the exception of L1Yi, L2 Mandarin as the other language probably plays a role in the acquisition process of the L3 English interrogative structures. Also, the findings confirmed the studies concluded by Cabrelli, Iverson, Judy, & Rothman (2008) and Iverson (2010), which relate to the source of transfer, L2A and L3A are distinct, and regarding the source of transfer from the previous language, L3 learners have more potential for transfer at the L3 initial state.

However, the findings from the written production of the beginner learners’ interrogative structures were not in line with the previous research by García Mayo (1999) and Klein (1995). Regarding L3A, García Mayo (1999) and Klein (1995) agreed that L3 was treated as another case of L2A regarding L3 morphosyntax. As shown in the results, Mandarin as the L2 for the beginner learners also hindered the correct production of the L3 English word order. This showed that the production of the L3 English word order by the beginner learners was not only influenced by L1 Yi but also by L2 Mandarin. Therefore, L3A should not be treated as another case of L2A, as L3A shows a difference from L2A since the negative influence from L2 Mandarin was also examined.

To summarise, the beginner learners exhibited cross-linguistic influence from both L1 Yi and L2 Mandarin in the written production task, and the interlingual errors from L1 Yi were higher than from L2 Mandarin for both the affirmative and

interrogative structures. It is worth noting that the production errors from the case of L1≠L2≠L3 were much higher than for L1≠L2&L3. Therefore, it is assumed that the beginner learners faced more challenges in the process of producing the interrogative structures than the simple affirmative structures in the written production task.

4.1.2 Results and discussions for the written production errors of L3 English word order by the upper-intermediate learners

This subsection presents the results of the upper-intermediate learners' production errors of L3 English word order in the written task, and the findings are discussed. 4.1.2.1 focuses on the results and 4.1.2.2 highlights the discussions concerning the written production errors by the upper-intermediate learners.

4.1.2.1 Results of the written production errors of L3 English word order by the upper-intermediate learners

The upper-intermediate learners' results for the written production errors of L3 English word order from the multiple choice questions are presented in the sequence of the sentence structures of Case 1: L1≠L2&L3 first, followed by the sentence structures of Case 2: L1≠L2≠L3.

Table 20: Upper-intermediate learners' written production of L3 English word order in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%
S+V+O	2/90	2.2	0/90	0
S+V+O+to	0/90	0	3/90	3.3
S+V+IO+DO	1/90	1.1	1/90	1.1
Total	3/270	1.1	4/270	1.5

Table 20 shows that the upper-intermediate learners produced a very low proportion of word order errors from L1 Yi and other structures when the word order of L2 Mandarin is as same as L3 English (L2=L3). The error rates from L1 Yi word order were 2.2% in the 'S+V+O' structure, 1.1% in the 'S+V+IO+DO' structure, and no errors from L1 Yi word order were produced in the 'S+V+O+to' structure. Similarly, the error rates from other structures were infrequent. The error rates of

3.3% were produced from the 'S+V+O+to' structure and 1.1% from the 'S+V+IO+DO' structure, and no errors from other structures were produced in the 'S+V+O' structure. Overall, the upper-intermediate learners produced few errors in the simple affirmative structures for Case L1≠L2&L3.

The upper-intermediate learners' results for the written production of word order in the affirmative structures for L1≠L2≠L3 are presented in Table 21.

Table 21: Upper-intermediate learners' written production of L3 English word order in the affirmative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%
S+V+O+PP	0/90	0	1/90	1.1	0/90	0
O(patient)+Be+V3+by +S(agent)	2/90	2.2	0/90	0	1/90	1.1
S+V+to	5/90	5.6	1/90	1.1	1/90	1.1
Total	7/270	2.6	2/270	0.7	2/270	0.74

Table 21 shows the average error rates that the upper-intermediate learners made in the affirmative structures for L1≠L2≠L3 were below 3%, which was a very low proportion. The error rates from L2 Mandarin word order were 2.2% in the 'S+V+to' structure and 5.6% in the passive voice 'O(patient)+Be+V3+by+S(agent)' structure, and no errors of L2 Mandarin word order were found from the 'S+V+O+PP' structure. Accordingly, a very low proportion of the error rates, i.e. less than 2% was produced from L1 Yi word order and other structures. No errors of L1 word order were produced from the passive voice 'O(patient)+Be+V3+by+S(agent)' structure. The results indicated that the upper-intermediate learners succeeded in producing the affirmative structures of L3 English for L1≠L2≠L3, and less difficulty was encountered in the acquisition of L3 English affirmative structures.

The upper-intermediate learners' results for the written production of word order in the interrogative structures for L1≠L2≠L3 are presented in Table 22 below.

Table 22: Upper-intermediate learners' written production of L3 English word order in the interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%
Aux.v+S+V+O	2/90	2.2	1/90	1.1	0/90	0
Aux.v+Neg.pt+S+V+O	0/90	0	0/90	0	2/90	2.2
Int+Aux.v+S+V	0/90	0	0/90	0	1/90	1.1
Total	2/270	0.7	1/270	0.3	3/270	1.1

The results from the upper-intermediate learners' written production task in the interrogative structures for L1≠L2≠L3 showed that negative influences from L1 Yi and L2 Mandarin word order were infrequent since a very small proportion of the production errors was found from the written task. Only 2.2% of the error rates were found from L2 Mandarin word order and 1.1% from L1 Yi word order in the affirmative Yes-no question 'Aux.v+S+V+O' structure, respectively. The error rates from other structures were 2.2% in the negative Yes-no question 'Aux.v+Neg.pt+S+V+O' structure and 1.1% in the Wh-question 'Int+Aux.v+S+V' structure.

Overall, the results indicated that the upper-intermediate learners produced a few errors in the written task for both the affirmative and interrogative structures for two cases. A high proportion of correct sentences from L3 English word order were produced, and production errors form L1 Yi, L2 Mandarin and other structures were not obvious. The upper-intermediate learners did not show a high degree of difficulty in producing the L3 English affirmative and interrogative structures.

4.1.2.2 Discussions of the written production errors of L3 English word order by the upper-intermediate learners

Based on the findings in the written production errors of L3 English word order by the upper-intermediate learners, this part discusses the findings in relation to the previous research. The previous research applied to the discussions included the Cumulative Enhancement Model (CEM) (see 2.1.3.62) and the 'L2 status factor' theory in L3A (see 2.1.3.4).

As presented in Section 4.1.2.1, the results in the affirmative structures for L1≠L2&L3 showed that the upper-intermediate learners produced few errors in the L3 English word order, and the error rates from L1 Yi word order and other structures were low. The minor errors produced in the word order of L1 Yi and other structures are extracted and presented in Table 23.

Table 23: Examples of the upper-intermediate learners' errors from the written production in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting L1 word order	Errors reflecting other structures
S+V+O	S+O+V+PP *He food cooked for his mom. S+O+V *She a book read.	-
S+V+O+to	-	S+V+IO+V+O *Her friend invited her go to the concert. *The doctor advised him take the medicine.
S+V+IO+DO	S+IO+DO+V *Lisa him a book gave.	S+V+DO+IO *He showed a photo her.

The upper-intermediate learners produced a high proportion of correct sentences of L3 English word order in the affirmative structures for L1≠L2&L3, and few errors of L1 Yi word order and other structures were found. The errors, as exemplified from L1 Yi word order, were in the 'S+V+O' structure such as *'He food cooked for his mom' and *'She a book read', and in the 'S+V+IO+DO' structure such as *'Lisa him a book gave', which reflect L1 Yi word order of 'S+O+V+PP' and 'S+IO+DO+V', respectively. Besides, the errors reflecting other structures were in the 'S+V+O+to' structure such as *'Her friend invited her go to the concert', and in the 'S+V+IO+DO' structure such as *'He showed a photo her', using L1 Yi word order of 'S+V+IO+V+O' and 'S+V+DO+IO', respectively.

Similarly, the upper-intermediate learners' results from the affirmative structures for L1≠L2≠L3 showed that low error rates of L3 English word order were produced, which was similar to the result of low error rates of L3 English word order in the

affirmative structures for L1≠L2&L3 as well. Some examples of word order errors in the affirmative structures for L1≠L2≠L3 are shown below.

Table 24: Examples of the upper-intermediate learners' errors from the written production in the affirmative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order	Errors reflecting L1 word order	Errors reflecting other structures
S+V+O+PP	-	S+PP+O+V *He under the bus a cat saw.	-
O(patient)+ Be+V3+by +S(agent)	O(patient)+Be+by+S (agent)+V3 *It was by her grandma made.	-	By+S(agent)+it+ Be+V3 *By his uncle it was built.
S+V+to	S+V+V+O *He planned watch a movie. *He liked make apple juice. *He wanted visit Shanghai.	S+O+V+V+to *He a movie watch planned to.	O+V+S+V *Shanghai visit he wanted.

The errors that the upper-intermediate learners produced in this case were similar to the beginner learners' results. Errors reflecting L1 Yi word order such as *'He under the bus a cat saw' were produced in the English structure 'S+V+O+PP'. In the passive voice sentence, errors of L1 Yi word order were produced such as * 'It was by her grandma made'. It was L1 Yi word order of 'O(patient)+Be+by+S(agent)+V3', in which the subject precedes the V3. In the 'S+V+to' structure, errors of L2 Mandarin word order were exemplified as *'He planned watch a movie', *'He liked make apple juice', and *'He wanted visit Shanghai'. These sentences reflected errors of L2 Mandarin word order of 'S+V+V+O' and the infinitive 'to' omission. Meanwhile, few examples of errors reflecting other structures were explained. For instance, the sentence of the 'By+S(agent)+it+Be+V3' word order *'By his uncle it was built' was produced in the passive voice, and the sentence of 'O+V+S+V' word order *'He a movie watch planned to' was made in the 'S+V+to' structure. These erroneous sentences were irrelevant to the word order in L1 Yi and L2 Mandarin.

Likewise, as shown in the results for the written production errors of L3 English word order in the interrogative structures for L1≠L2≠L3 by the upper-intermediate

learners, a very small proportion of erroneous sentences of L1 Yi, L2 Mandarin word order, or other structures were produced in accordance with the results for the affirmative sentence structures for both cases of L1≠L2&L3 and L1≠L2≠L3. Examples of the errors in each sentence structure are presented in the table below.

Table 25: Examples of upper-intermediate learners' errors from the written production in the interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order	Errors reflecting L1 word order	Errors reflecting other structures
Aux.v+S+V+O	S+V+O+PP+Int.pt *Tony played basketball last Saturday? S+V+O+Int.pt *He finished the work?	S+O+V+Int.pt *He the concert attended?	-
Aux.v+Neg.pt+ S+V+O	-	-	Neg.pt+PP+S+V *Didn't in Beijing Tom live? O+S+Neg.pt+V *The book he didn't return?
Int+Aux.v+S+V	-	-	Int+PP+S+V *What for him Tom's sister made?

Table 25 presents all the errors that the upper-intermediate learners produced in the written task in the interrogative structures for L1≠L2≠L3. The erroneous sentences of L2 Mandarin word order were found from the affirmative Yes-no question 'Aux.v+S+V+O' structure. These errors reflected the word order of the affirmative Yes-no question in L2 Mandarin such as *'Tony played basketball last Saturday?' followed the 'S+V+O+PP+Int.pt' word order, and *'He finished the work?' followed the 'S+V+O+Int.pt' word order. In the grammar for L2 Mandarin affirmative Yes-no question, it follows the word order rule of 'S+V+O' followed by a mood particle[19] 'ma' at the end of the sentence. Besides, the exclusive erroneous sentences produced in L1 Yi word order were also from the affirmative Yes-no question such as *'He the concert attended?', using L1 Yi word order 'S+O+V+Int.pt'. Except for the erroneous sentences mentioned above, few sentences of other structures were made in the

[19] In Mandarin, a mood particle is a particle at the end of a Yes-no question such as 'ma', 'la', 'a', 'ne', or 'ba'.

negative Yes-no question ‘Aux.v+Neg.pt+S+V+O’ structure such as *‘Didn’t in Beijing Tom live?’ and *‘The book he didn’t return?’, and in the Wh-question ‘Int+Aux.v+S+V’ structure such as *‘What for him Tom’s sister made?’.

The results of the upper-intermediate learners’ production errors in the written production task for both affirmative structures and interrogative structures were similar. That is, a high proportion of correct sentences of L3 English word order in all the sentence structures were produced, and very few errors reflecting the word order of L1 Yi, L2 Mandarin and other structures were examined in their elicited production task. Therefore, the findings for both the affirmative and interrogative structures were discussed together in relation to the previous literature.

The findings from the upper-intermediate learners’ written production task disagreed with some previous studies. Regarding the Cumulative Enhancement Model (CEM) for multilingual transfer, Flynn et al. (2004) claims that all previous linguistic knowledge, both L1 and L2, can potentially modify the course of L3A at the syntactic level. Conversely, the findings from the upper-intermediate learners’ production errors in the written task showed that they produced fewer word order errors from L1 Yi, L2 Mandarin, and other structures, and succeeded in producing L3 English word order in both the affirmative and interrogative structures. It seemed like they were not influenced negatively by L1 Yi, L2 Mandarin, or other structures for the written production of L3 English.

In addition, the findings were also consistent with the ‘L2 status factor’ theory by Meisel. Meisel (1983) assumes that L2 plays a significant role in L3A. Consistently, in this study, the results indicated that the upper-intermediate learners were more negatively influenced by L2 Mandarin rather than L1 Yi since they produced more errors of L2 Mandarin word order. Therefore, the ‘L2 status factor’ seemed to play a significant role for the upper-intermediate learners. In particular, the upper-intermediate learners produced more errors of L2 Mandarin word order for the sentence structures if the word order of the three languages was different. In this case, L2 Mandarin became a hinderance rather than a facilitator in acquisition of L3 English. This also confirmed Bardel and Falk (2007)’s claim that the ‘L2 status factor’ played a more important role than typological distance.

Therefore, it seemed like the upper-intermediate learners had more syntactic knowledge of L3 English and made fewer interlingual errors compared with the beginner learners, who were still at the initial state of L3 acquisition, and had not fully mastered the linguistic knowledge of L3, resulting in more interlingual errors of L1 Yi and L2 Mandarin word order. Overall, the findings indicated that the cross-linguistic influences from the prior languages were not prominent for the upper-intermediate learners in the acquisition of L3 English word order in the written production of the affirmative and interrogative structures.

To summarise, the upper-intermediate learners did not reveal much cross-linguistic influence from L1 Yi and L2 Mandarin in the written production task, and the minor interlingual errors from L2 Mandarin were higher than from L1 Yi for both the affirmative and interrogative structures.

4.1.3 Comparison and contrast of written production errors of L3 English word order between the beginner and upper-intermediate learner groups

This part compares and discusses the similarities and differences of the production errors produced by the beginner and upper-intermediate learners in the written task regarding L3 English word order of affirmative and interrogative structures.

Table 26: Comparison and contrast of error rates between the two groups of learners in the written production task

Error rates / Learners	Affirmative structure: L1≠L2&L3		Affirmative structure: L1≠L2≠L3			Interrogative structure: L1≠L2≠L3		
	L1	Others	L2	L1	Others	L2	L1	Others
Beginners	17%	1.1%	11.5%	13%	0.4%	8.1%	23%	2.2%
Upper-intermediates	1.1%	1.5%	2.6%	0.7%	0.74%	0.7%	0.3%	1.1%
Total	9.05%	1.3%	7.05%	6.85%	0.57%	4.4%	11.65%	1.65%

Note: ‘L1’ means errors reflecting L1 Yi word order; ‘L2’ means errors reflecting L2 Mandarin word order; ‘Others’ means errors reflecting other structures.

In terms of the sentence structures, the results showed that the beginner learners produced more errors than the upper-intermediate learners in the written task for both

the affirmative and interrogative structures in terms of cross-linguistic influences from L1 Yi and L2 Mandarin, the beginner learners produced higher error rates from L1 Yi word order than from L2 Mandarin and other structures than the upper-intermediate learners. The error rates that the beginner learners produced from L1 Yi word order were 17% from the affirmative structure for L1≠L2&L3, 13% from the affirmative structure for L1≠L2≠L3, and 23% from the interrogative structure for L1≠L2≠L3, respectively. Comparatively, the upper-intermediate learners only produced a small proportion of errors from L1 Yi and L2 Mandarin word order. The average error rates that the upper-intermediate learners produced from L1 Yi were less than 1%, which was far different from the result for the beginner learners. Accordingly, the errors made by the beginner learners from L2 Mandarin word order were higher than that of the upper-intermediate leaners, with 11.5% from the affirmative structure for L1≠L2≠L3, and 8.1% from the interrogative structure for L1≠L2≠L3, respectively. However, the average error rates by the upper-intermediate learners from L2 Mandarin word order were less than 3%. The results indicated that the error rates produced by the upper-intermediate learners was very low, and they seemed to be successful in the production of L3 English word order in the written form.

Regarding the acquisition of word order, Odlin (1989) claimed that the similarities and differences between languages may influence the acquisition of grammar, vocabulary, and pronunciation. Accordingly, similarities and differences were shown regarding the written production errors made by the beginner and upper-intermediate learners. The similarities were that the beginner learners and upper-intermediate learners produced few errors from other structures in all sentence structures in the written production task. Tarone (2010) claimed that the learners created a separate linguistic system that was different from the learner's L1 and the target language through the interlingual identification. Accordingly, some errors reflecting other structures produced by the two groups were different from L1 Yi, L2 Mandarin or the target L3 English in terms of word order. Therefore, both the beginner and upper-intermediate learners seemed not to be influenced negatively by errors of other structures in the acquisition of L3 English word order in the written task.

At the same time, the two groups produced errors of L2 Mandarin word order, i.e. omission of the infinitive ‘to’ in the ‘S+V+to’ structure. The main difference in the written production errors between the two learner groups was that the beginner learners produced a higher proportion of errors from L1 Yi word order than L2 Mandarin in the affirmative structures for L1≠L2≠L3. In particular, the highest rates of erroneous sentences were produced, i.e. in the passive voice ‘O(patient)+Be+V3+by+S(agent)’ structure by the beginner learners, whereas only a small proportion of errors from L2 Mandarin word order was produced by the upper-intermediate learners in the same sentence. In the interrogative structures, the beginner learners produced a high proportion of error rates mainly from L1 Yi word order in all the sentence structures which exhibited a strong influence from L1 Yi word order, whereas the upper-intermediate learners only produced some minor errors of L2 Mandarin word order.

4.2 Results and discussions for the oral production errors of L3 English word order (Oral task)

This section presents the two learner groups’ results and discussions regarding the oral production errors of L3 English word order through an oral task. 4.2.1 focuses on the beginner learners’ results and discussions, 4.2.2 focuses on the upper-intermediate learners’ results and discussions, and 4.2.3 compares and discusses the oral production errors of L3 English word order between the two groups.

4.2.1 Results and discussions for the oral production errors of L3 English word order by the beginner learners

This subsection reports the results of the beginner learners’ production errors of word order in the oral task, and discusses the findings. 4.2.1.1 focuses on the results and 4.2.1.2 concentrates on the discussions concerning the oral production errors by the beginner learners.

4.2.1.1 Results of the oral production errors of L3 English word order by the beginner learners

The beginner learners' results for the oral production errors of L3 English word order from the oral task are presented in the sequence of the sentence structures of Case 1: L1≠L2&L3 first, followed by the sentence structures of Case 2: L1≠L2≠L3.

Table 27: Beginner learners' oral production of L3 English word order in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%
S+V+O	20/90	22.2	2/90	2.2
S+V+O+to	20/89	22.5	2/89	2.2
S+V+IO+DO	24/89	27	7/89	7.9
Total	64/268	23.9	11/268	4.1

The result of the beginner learners' oral production of L3 English word order showed a high proportion of error rates from L1 Yi was produced in the affirmative structures for L1≠L2&L3. The error rates from L1 Yi word order and the other structures were 23.9% and 4.1%, respectively. Individually, the highest error rates were from the 'S+V+IO+DO' structure, at 27% errors from L1 Yi word order and 7.9% from other structures. Comparatively, the error rates from L1 Yi word order were almost equivalent to 22.2% and 22.5% in the 'S+V+O' and 'S+V+O+to' structures, respectively; only 2.2% were from other structures.

The results of the oral production errors of L3 English word order for the beginner learners in the affirmative structures for L1≠L2≠L3 are presented in Table 28.

Table 28: Beginner learners' oral production of L3 English word order in the affirmative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting others structures	
	Ratio	%	Ratio	%	Ratio	%
S+V+O+PP	1/90	1.1	13/90	14.4	2/90	2.2

O(patient)+Be+V 3+by+S(agent)	8/89	9	44/89	49.4	3/89	3.4
S+V+to	23/90	25.6	4/90	4.4	0/90	0
Total	32/269	11.9	61/269	22.7	5/269	1.9

The result demonstrated that the beginner learners produced a high proportion of error rates in the affirmative structures for L1≠L2≠L3. The error rates of the oral production in this case ranged from high to low were at 22.7% from L1 Yi word order, 11.9% from L2 Mandarin word order, and 1.9% from other structures. Comparatively, the error rates from L1 Yi word order were 10.8% higher than from L2 Mandarin, and 20.8% higher than from other structures. However, in the individual sentence structure, the highest error rates were produced from the passive voice 'O(patient)+Be+V3+by+S(agent)' structure, at 49.4% from L1 Yi; the second-highest error rates were from the 'S+V+to' structure, at 25.6% from L2 Mandarin. Comparatively, the beginner learners produce a high proportion of correct sentences from the 'S+V+O+PP' structure and fewer errors were evidenced.

The beginner learners' results on the oral production of word order in the interrogative structures for L1≠L2≠L3 are presented in Table 29 below.

Table 29: Beginner learners' oral production of L3 English word order in the interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%
Aux.v+S+V+O	0/90	0	19/90	21.1	0/90	0
Aux.v+Neg.pt+S+V+O	17/90	18.9	20/90	22.2	1/90	1.1
Int+Aux.v+S+V	16/90	17.8	10/90	11.1	5/90	5.6
Total	33/270	12.3	49/270	18.1	6/270	2.2

The results from the beginner learners' oral production in the interrogative structures for L1≠L2≠L3 showed great differences from those of the affirmative structures for L1≠L2&L3 and L1≠L2≠L3. That is, the error rates from L1 Yi word order were greater than L2 Mandarin word order in this case, with 18.1% of the errors

was from L1 Yi word order and 12.3% was from L2 Mandarin. It is worth noting that a high proportion of error rates from L3 English word order were produced for the interrogative structures, compared with the results of the written and oral production in L1≠L2≠L3 and L1≠L2&L3 from the affirmative structures. Besides, a small proportion of errors was produced from other structures, totaling 2.2%.

When comparing the three interrogative structures for L1≠L2≠L3, the error rates from L1 Yi word order were more evident than L2 Mandarin in the negative Yes-no question 'Aux.v+Neg.pt+S+V+O' structure, at 22.2%. The error rates from L1 Yi word order were 21.1% in the affirmative Yes-no question 'Aux.v+S+V+O' structure. In contrast, erroneous sentences from L2 Mandarin word order in the same sentence structure were not evidenced. However, the error rates from L2 Mandarin word order were 17.8% in the Wh-question 'Int+Aux.v+S+V' structure. Meanwhile, this showed that the error rates from other structures rather than L1 Yi and L2 Mandarin word order were also examined. That is, a smaller proportion of 5.6% was from the 'Int+Aux.v+S+V' structure, 1.1% from the 'Aux.v+Neg.pt+S+V+O' structure, and there were no errors from other structures produced in the 'Aux.v+S+V+O' structure.

Overall, this demonstrated that the beginner learners were negatively influenced by L1 Yi and L2 Mandarin word order in the oral production of the English interrogative structures for L1≠L2≠L3, but the proportion of interlingual error rates from L1 Yi and L2 Mandarin word order produced for each individual structure were different, with more influences from L1 Yi word order than L2 Mandarin word order. Therefore, the degree of negative influence from L1 Yi or L2 Mandarin word order varied in different sentence structures in the oral production of L3 English word order.

4.2.1.2 Discussions of the oral production errors of L3 English word order by the beginner learners

The findings from the oral production errors of L3 English word order in the oral task are discussed in the sequence of the sentence structures for Case 1: L1≠L2&L3 first, followed by the sentence structures for Case 2: L1≠L2≠L3. The findings regarding the oral production errors of L3 English word order for the beginner learners were discussed in agreement with some previous research such as the Cumulative Enhancement Model (CEM) (see 2.1.3.6), the Typological Primacy

Model (TPM) (see 2.1.3.3), the 'L2 status factor' theory in L3A (see 2.1.3.4), Error Analysis (see 2.3.3), and Interlanguage (see 2.3.4).

Obviously, in the oral production of the affirmative structures for L1≠L2&L3, the beginner learners showed higher error rates for the 'S+V+IO+DO' structure than the two other structures, and more difficulties were encountered in producing this structure in L3 English word order. As L2 Mandarin and L3 English have the same word order for these affirmative structures, the linguistic knowledge of L2 Mandarin word order might facilitate the production of correct sentences of L3 English word order. Probably, in the process of producing L3 English word order in the oral task, the beginner learners frequently applied the linguistic knowledge of L1 Yi word order to facilitate L3 production at the syntactical level.

Examples of the beginner learners' errors from the oral production of L1 Yi word order and other structures in the affirmative structures for L1≠L2&L3 are presented in Table 30.

Table 30: Examples of beginner learners' errors from the oral production in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting L1 word order	Errors reflecting other structures
S+V+O	S+O+V+PP a.*I book buy in shop. S+O+V b.*Yes, he homework do. PP+S+O+V c.*In shop mall he fish a buy.	O+S+V a.*The book Lily give. b.*Homework he do.
S+V+O+to	S+O+ V+ Complement a.*Teacher him ask do homework. PP+S+O+V+ Complement b.*During the holiday, his mother him advise buy book. S+O+V+ Complement c.*His mother him advise T-shirt wash. d. *His friend him told what make.	S+to+O+V+to+ Complement a.*The teacher to her ask to buy book. S+ Complement +V+O b.*His friend make house told him.

S+V+IO+DO	S+IO+DO+V+ Complement a.*Peter him a card send to as gift. b.*Her grandma her fish a buy to for her birthday. c.*His parents a pen him give for birthday.	S+to+IO+V+DO a.*Peter to him send a card. PP+S+IO+DI+to+V b.*For her grandma her she card to buy. S+V+DO+PP+DO c.*His parent give him for her birthday some milk.

Table 30 presents some examples of the errors that the beginner learners produced in the oral production task for the affirmative structures for L1≠L2&L3. The results indicated that the beginner learners produced a higher proportion of error rates from L1 Yi word order and a lower proportion of errors rates from other structures. Accordingly, erroneous sentences of L1 Yi word order or other structures were presented in order to exemplify how various errors were produced in the oral production task, and compared how such errors were different from those in the written production task. In the three types of affirmative structures for L1 ≠L2&L3, a variety of errors that were different from those in the written production task were produced by the beginner learners.

In the English 'S+V+O' structure, the errors were mainly from L1 Yi word order of the 'S+O+V' structure such as *'Yes, he homework do', in which the object precedes the verb. Meanwhile, some errors were produced in L1 Yi word order using placement of the PP prepositional phrase at the beginning of the sentence. For example, *'In shop mall he fish a buy'. In contrast, the PP is placed after the main sentence in the English grammatical rule, but this example indicated that the Yi grammar rule of the PP preposing the main sentence was applied.

In the English 'S+V+O+to' structure, it is necessary to use the infinitive 'to' to connect the main part of the sentence and the infinitive structure, comparatively, an equivalent of 'to' is not a grammatical marker in L1 Yi grammar. However, the errors that the beginner learners frequently produced for this structure were to omit the infinitive 'to' and use L1 Yi word order 'S+O+V' instead. For instance, *'Teacher him ask do homework' and *'During the holiday, his mother him advise buy book' were typical errors of L1 word order, and the infinitive 'to' was not used by the

beginner learners in these sentences. These errors were evidence of interlingual errors from L1 Yi word order. Comparatively, in English grammar, the infinitive ‘to’ is necessary for some verbs such as ‘ask somebody to do’ and ‘advise somebody to do’. Thus, it showed that the beginner learners were strongly influenced by L1 Yi word order when producing equivalent L3 English sentences due to omission of the infinitive ‘to’. Therefore, the interlingual errors of L1 Yi word order were exhibited when in the oral production of the beginner learners’ L3 English word order.

In the English ‘S+V+IO+DO’ structure, a highest proportion of error rates from L1 Yi ‘S+IO+DO+V’ structure and other structures were orally produced by the beginner learners, as shown in the tree diagram (9) and (10) below.

(9) *Peter him a card send to as gift.

S IO DO V Complement

(10) *His parents he a violin give for her birthday.

As the English word order ‘S+V+IO+DO’ structure is more complex than other simple sentence structures, a tree diagram is provided to indicate how the beginner learners applied the Yi word order in this structure. The word order in this structure is ‘S+V+IO+DO’ in English, while the equivalent in the Yi word order is ‘S+IO+DO+V’. It means the word order of this structure is clearly different between L3 English and L1 Yi. However, the beginner learners produced erroneous sentences using the Yi word order. That is, the linguistic knowledge of the Yi word order was applied by the beginner learners when producing L3 English for this structure.

In addition, sentences of other structures were also produced by the beginner learners in the affirmative structure for L1≠L2&L3 in the oral production task. For the English ‘S+V+O’ structure, erroneous sentences such as *‘The book Lily give’ and *‘Homework he do’ were produced; for the English ‘S+V+O+to’ structure, erroneous sentences such as *‘The teacher to her ask to buy book’ and *‘His friend make house told him’ were produced; for the English ‘S+V+IO+DO’ structure, more erroneous sentences of other structures were produced such as *‘Peter to him send a card’, *‘For her grandma her she card to buy’, and *‘His parent give him for her birthday some milk’. These sentences were in the formation of other structures, rather than in the

word order of L1 Yi and L3 English. The erroneous production of other structures might be attributed to the beginner learners' lack of L3 grammatical knowledge at the early stage of L3 English acquisition, and a linguistic system that is different from L3 English might be utilised by the beginner learners to facilitate in the oral production of English affirmative structures.

Obviously, the results indicated that more difficulties in producing correct sentences of L3 English word order were encountered by the beginner learners due to the findings which showed that the errors from L1 Yi word order were produced more frequently, rather than from L2 Mandarin and other structures. When the word order of the affirmative structure was totally different among the three languages, the beginner learners mainly applied L1 Yi word order rather than L2 Mandarin word order to produce L3 English sentences. It seemed that cross-linguistic influences from L1 Yi played a major role in the acquisition of L3 English word order in the oral production of the affirmative structures for L1≠L2≠L3.

The highest error rates from L1 word order, at 49.4%, were produced orally by the beginner learners in the English passive voice 'O(patient)+Be+V part+by+S(agent)' structure. That is, when producing the English passive voice sentences orally, the beginner learners made more interlingual errors of L1 Yi word order. Comparatively, a higher proportion of error rates from L2 Mandarin word order, i.e. 25.6% was examined in the English 'S+V+to' structure. Thus, the greater negative influences from L2 Mandarin word order were exhibited. The most extreme difference was shown from the error rates in the English 'S+V+O+PP' structure. That is, the error rates from L1 Yi word order were 14.4%, and from L2 Mandarin only 1.1%, respectively. Overall, the beginner learners seemed to be influenced negatively by both L1 Yi and L2 Mandarin in the acquisition of the affirmative structures for L1≠L2≠L3, but the degree of influence from L1 Yi word order, L2 Mandarin word order, or other structures varied according to different affirmative structures.

Based on the summary of the errors from the beginner learners' oral production in the affirmative structures for L1≠L2&L3, various interlingual errors from L1 Yi word order and other structures were committed, but negative transfer from L1 Yi was higher than from other structures. Besides, it is worth noting that fewer interlingual

errors were produced orally in the affirmative structure for L1≠L2&L3, compared with the results from Case 2: L1≠L2≠L3 by the beginner learners since the word order of L2 Mandarin is as same as L3 English in this case. According to the Typological Primacy Model (TPM) by Rothman (Rothman, 2010, 2011), typological distance plays the most important role in the selection of one language over another when learning an L3 language. When the prior languages show typological similarities to the target language, the prior language can be a facilitator for production in the target language in the acquisition of grammar, vocabulary, and pronunciation. In the case of L1≠L2&L3 for the affirmative structures, the learners produced fewer errors than in the case of L1≠L2≠L3. The cross-linguistic influence of L2 Mandarin word order might be a facilitator since the word order of L2 Mandarin is as same as L3 English in Case 1: L1≠L2&L3. The results from the beginner learners' oral production in this case supported the TPM theory.

On the contrary, the finding was not consistent with Grümpel (2009)'s claim that the hierarchy of difficulty in the acquisition of word order in L3 is SVO-SOV-VSO in the syntactic level. However, the beginner learners' oral production in this case indicated a high proportion of correct sentences in L3 English SVO word order. It seemed to be less difficult for the learners to produce the SVO word order. Therefore, whether a structure is difficult to acquire or not might not be explained simply by the hierarchy of acquisition sequence as other factors such as cross-linguistic influences and intralingual errors also played a role in the acquisition process.

Evidence of the beginner learners' errors of oral production in the affirmative structures for L1≠L2≠L3 is exemplified below.

Table 31: Examples of beginner learners' errors from the oral production in the affirmative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order	Errors reflecting L1 word order	Errors of other structures
S+V+O+PP	S+PP+V+O a.*He at the playground play ball.	S+PP+O+V a.*He in school ball play. b.*He on ground the ball kick.	PP+S+Be a.*In the box it is. O+S+V+PP b.*Her friend she meet yesterday.

		c.*She at home her friend meet to.	
O(patient)+Be+ V3+by+S(agent)	O(patient)+by+S (agent)+V a.*The picture by me drawn. b.*It by my mother made. c.*It's Lily made.	O(patient)+S+Agt.pt +V a.*The cake mom by made. b.*The picture me by drawn. c.*Classroom teacher cleaned.	S+By+V3+O+who a.*The picture by drawn I who.
S+V+to	S+V+V+O a.*Smith in the bookstore want buy book. b.*I like go now. c.*Her birthday Susan hope get a cake.	S+O+V+ V a.*He like to homework do during weekend. b.*Smith want to book many buy in bookstore.	-

Table 31 presents the errors produced by the beginner learners in the affirmative structures for L1≠L2≠L3. In the English 'S+V+O+PP' structure, the errors of L1 Yi word order 'S+PP+O+V' were evident such as *'He in school ball play' and *'She at home her friend meet to'. In Yi grammar, it is the rule to place the PP preposition phrase before the predicate. These erroneous sentences were in L1 Yi word order. Meanwhile, sentences of a combination of both L1 Yi and L3 English word order were examined in a single sentence. For example, in the sentence *'He in the playground the ball play with his friend', the Yi word order 'S+PP+O+V' structure was used in the beginning part, followed by the English word order 'S+V+O+PP' structure, in which the PP preposition phrase was placed at the end of the sentence.

According to Yi grammar, the correct sentence word order should be *'He with his friend in the playground the ball play'. However, these sentences showed evidence of combining both L1 Yi and L3 English word order in a single sentence. In the process of producing the 'S+V+O+PP' structure in the oral form, presumably, both linguistic grammatical knowledge of L1 Yi and L3 English were simultaneously applied by the beginner learners, so the interlingual errors of L1 Yi and intralingual errors of L3 English were produced. Comparatively, only one error from L2 Mandarin word order was examined in this structure, i.e. *'He at the playground play ball'.

Thus, the negative influences from L2 Mandarin word order were not evident in the English ‘S+V+O+PP’ structure.

In the English passive voice ‘O(patient)+Be+V3+by+S(agent)’ structure, a higher proportion of error rates from L1 Yi word order rather than other languages was examined, and these errors were exhibited in various forms. Three types of erroneous production were found in the passive voice. The first error type was the word order of the Yi passive voice ‘O(patient)+S+Agt.pt+V’ structure was fully produced. For instance, *‘The classroom Xiaozhang by whom cleaned’ and *‘The cake is mom by made’ were examples of such word order. The second error type was the agent particle ‘by’ was omitted. For example, the particle ‘by’ was omitted in the sentences *‘The cake my mom made’ and *‘Classroom teacher cleaned’. The L3 English word order rule for the passive voice sentence is that the patient of the sentence should be moved to the subject position, i.e. ‘the cake’ and ‘classroom’. However, the rule that the agent should be followed by the past participle V3 and that use of the agent particle ‘by’ to connect the agent and V3 was not applied in these sentences. Thus, such erroneous sentences were produced. Instead, L1 Yi word order was used such as *‘My mom made’ and *‘Teacher cleaned’, and the agent particle ‘by’ was omitted. The third error type was that erroneous sentences of L1 Yi declarative sentences were produced instead of passive voice sentences.

Particularly, in the English passive voice ‘O(patient)+Be+V3+by+S(agent)’ structure, it was found that the beginner learners avoided using the English passive voice structure and preferred to use the word order of the L1 Yi declarative sentence. The examples are provided below.

(11) *My grandma was cake made.

S (agent) Copular O (patient) V3

(12) *My teacher was class cleaned.

(13) *My father was picture drawn.

As shown in (11), (12), and (13), these sentences are the word order of L1 Yi declarative sentence. The agents such as ‘my grandma’, ‘my teacher’, and ‘my father’

were placed in the subject position. But the passive voice marker and the past participle V3 ‘made’, ‘cleaned’, and ‘drawn’ were also applied. Meanwhile, the grammatical knowledge of the L3 English passive voice was recognised by using “the copular ‘be’+V3” to indicate the passive voice marking in English, but the Yi word order of ‘O+V’ was also applied. It assumed that the linguistic knowledge of both the L1 Yi and L3 English word order was applied to produce English passive voice sentences by the beginner learners. Both interlingual errors from L1 Yi and intralingual errors from L3 English were examined. Besides, the passive voice sentences were not frequently produced in the Yi word order except when the speaker emphasised the patient of an action. Therefore, this might result in the beginner learners’ preference to use declarative sentences instead of passive voice sentences when producing L3 English in the oral production task.

In addition, errors of word order from L2 Mandarin passive voice were also examined from the beginner learners’ oral production. For example, *‘The picture by me drawn’, *‘It by my mother made’, and *‘It’s Lily made’. The word order of the passive voice in L2 Mandarin is ‘O(patient)+by+S(agent)+V’. Similarly, the errors produced by the beginner learners were consistent with this kind of word order.

In the English ‘S+V+to’ structure, the error most frequently produced by the beginner learners was omitting the infinitive ‘to’ marker after the main verb. The errors were such as *‘Smith in the bookstore want buy book’, *‘Her birthday Susan hope get a cake’, and *‘He like cook delicious food on weekend’. The errors applied L2 Mandarin word order of ‘S+V+V+O’ and omitting the infinitive ‘to’ marker of L3 English in the sentence. It seemed that L2 Mandarin word order ‘S+V+V+O’ structure was applied to produce the equivalent of the English ‘S+V+to’ structure by the beginner learners.

On the one hand, an equivalent of the infinitive ‘to’ marker of L3 in English is not used in L2 Mandarin word order. On the other hand, it is a grammatical rule to use the infinitive ‘to’ marker after some verbs in L3 English such as ‘hope to’, ‘like to’, and ‘decide to’, and so forth. In relation to the ‘L2 status factor’ in L3A, Bardel & Falk proposed that syntactic structures were more easily conveyed from L2 than from L1 at the initial state of L3A (Bardel & Falk, 2007). Accordingly, based on the errors

that were produced by the beginner learners for this sentence structure, it might be attributed to the interlingual errors from L2 Mandarin word order which negatively influenced the oral production of L3 English word order. Overall, the negative influence from L2 Mandarin word order was more evident when they produced this sentence structure in L3 English in oral form. The beginner learners might not fully master the grammatical rule that some verbs should be followed by 'to' in English. As a result, the beginner learners used such sentences frequently.

Based on the error rates produced orally by the beginner learners in the affirmative structure for L1≠L2≠L3, interlingual errors of both L1 Yi and L2 Mandarin word order were prevalent in each individual sentence in various ways. The finding might be explained with the claim made by Lott (1983) regarding interlingual errors in the error analysis theory. When the target language shares features with items in the prior languages, the learner may misuse those items, and overextension of the analogy occurs in the production. As shown in the evidence of various erroneous sentences produced above, clues of the negative influence from L1 Yi and L2 Mandarin word order were obvious; thus, interlingual errors were produced.

In addition, the results showed that more interlingual errors from L1 Yi were produced than L2 Mandarin, in particular, more interlingual errors were produced in the passive voice sentence 'O(patient)+Be+V3+by+S(agent)'. It is worth noting that errors of other structures were not regularly produced by the beginner learners in the affirmative structure for L1≠L2≠L3. In the English 'S+V+O+PP' structure, only two sentences of other structures were produced such as *'In the box it is' and *'Her friend she meet yesterday'. In the English passive voice 'O(patient)+Be+V3+by+S(agent)' structure, two erroneous sentences of other structures were produced such as *'The classroom cleaned me' and *'The picture by drawn I who'. These sentences were irrelevant to the word order of the three languages discussed in the study. The oral production of other structures might be explained with Tarone's view on interlanguage. According to Tarone (2010), interlanguage is a separate linguistic system, and it is clearly different from the learner's native language and the target language being learnt, but linked to both the native language and the target language by the interlingual identification from the

learner's perception. It might be the systematic development that the beginner learners experienced in the process of producing L3 English word order.

Evidence of the beginner learners' errors of the oral production in the interrogative structures for L1≠L2≠L3 is exemplified below.

Table 32: Examples of beginner learners' errors from the oral production in the interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order	Errors reflecting L1 word order	Errors reflecting L1 word order combined with L3 word order	Errors reflecting other structures
Aux.v+S+V+O	-	S+O+V+ Int.pt a.*He the girl crying know? b.*He key find? c.*He at school arrive at?	Aux.v+S+O+V a.*Do he key find? b.*Do he the girl crying know? Aux.v+S+PP+V c.*Do he at school arrive at?	-
Aux.v+Neg.pt+S+V+O	S+Neg.pt+V+O+PP[20] a.*He didn't like to live in that house? b.*She didn't turn off the light last night? c.*She could not use the computer?	S+PP+Neg.pt+V a.*I in house no like live in? PP+S+O+Neg.pt+V b.*Last night I the light no turn off? c.*He that house live don't like?	Aux.v+S+O+V a.*Did she the light turn off? Aux.v+S+O+V b.*Could she computer use? PP+Aux.v+S+O+Neg.pt+V c.*Last night do she the light didn't turn off?	-
Int+Aux.v+S+V	S+V+Int a.*She saw what? b.*She made what? S+V+O+ Int.pt c.*She made a toy car?	S+Int+V a.*She what made? b.*She what saw? c.*He what played? S+O+V+ Int.pt d.*She a toy car made?	Aux.v+S+Int+V a.*Did she what made? Aux.v+S+Int+V+PP b.*Do she what saw in the park?	Int+Be+S+V+it a.*What is she made it? S+Int+Aux.v+V b.*He what do play? Be+Int+V+S+O c.*Is what played he football? S+V+Int+be d.*She saw what is?

[20] The learners used a falling intonation in the oral production of this sentence structure.

The beginner learners' errors from the oral production in the interrogative structures for L1≠L2≠L3 are exemplified in Table 28. As the errors produced in the interrogative structures showed great variety, the errors from each sentence structure were elaborated separately as follows:

1. The affirmative Yes-no question: 'Aux.v+S+V+O' structure

The major finding in the 'Aux.v+S+V+O' structure was that the word order of L1 Yi affirmative Yes-no questions was applied in the oral production of the equivalent in L3 English, and a rising intonation was used at the end of the sentence. For example, *'He the girl crying know?', *'He key find?', and *'He at school arrive at?'. These sentences were in the word order of the L1 Yi affirmative Yes-no question 'S+O+V+Aux.v+Int.pt'. But an interrogative final particle as required in the Yi grammar was not applied by the beginner learners. Instead, a rising intonation or a falling intonation was used at the end of the sentence to show the interrogative marking. In addition, erroneous sentences reflecting L1 Yi combined with L3 English were examined such as *'Do he key find?', *'Do he at school arrive at?' and *'Do he the girl crying know?' were produced. The 'do' support was realised and preposed, and the left part of the sentence was produced in the word order of L1 Yi, as shown in the 'Aux.v+S+O+V' and 'Aux.v+S+PP+V' structures. According to the Cumulative Enhancement Model (CEM) by Flynn et al. (2004), transfer into L3 can come from any previously acquired language, and transfer from L1 or L2 can only be facilitative. As shown from the errors reflecting L1 Yi combined with L3 English, it seemed that the linguistic knowledge of both L1 Yi and L3 English was applied in the production of the English affirmative Yes-no questions.

It is worth noting that a high proportion of declarative questions [21] was produced in the affirmative Yes-no questions rather than the interrogative questions in the oral production task. A declarative question is a kind of Yes-no question that has the form of a declarative sentence, but it is spoken with a rising intonation at the end of the sentence (Nordquist, 2013). However, in the beginner learners' results for the oral production in the 'Aux.v+Neg.pt+S+V+O' structure, it was observed that a

[21] According to Richard (1987), declarative questions are acceptable in informal speech or in colloquial contexts. They are usually spoken with a rising intonation at the end to express surprise or ask for verification.

falling intonation was used rather than a rising intonation. Examples were *‘He arrive at school on time?’, ‘He knows the crying girl?’ and ‘He found the key?’. A falling intonation was used in these examples. In informal speech, a declarative question is preferred rather than an interrogative question. Among the 90 sentences produced in this sentence structure, 19 items, i.e. 21.1% were produced in declarative questions but using a falling intonation. Therefore, these errors were deemed as oral production of L2 Mandarin word order.22

Furthermore, in the English intonation rule, a rising intonation is necessary in the interrogative sentence of a Yes-no question in the oral form to indicate the interrogative marking, except for using the ‘do’ support. Comparatively, the interrogative final particle ‘ma’, ‘ba’, or ‘la’ is required to end a sentence in the L2 Mandarin affirmative Yes-no question structure. Based on the grammatical rule of L2 Mandarin and L3 English intonation for the affirmative Yes-no question, similarities were shared between L2 Mandarin and L3 English. The use of a rising intonation also indicated that the phonological knowledge of using a rising intonation in English affirmative Yes-no questions was also recognised by the beginner learners.

The high proportion of oral production of word order might be explained based on the Typological Primacy Model (TPM) (Rothman, 2010, 2011). TEM claims that typological distance plays the most important role in the selection of one language over another when learning an L3 (Rothman, 2010). L2 Mandarin and L3 English were typologically close for this structure, using the ‘S+V+O” word order, thus the beginner learners tended to apply the equivalent of L2 Mandarin in production of L3 English. In addition, as it was obliged to apply a rising intonation in the oral production of Yes-no questions, and the learners tended to use declarative questions to show agreement or confirmation.

2. The negative Yes-no question: ‘Aux.v+Neg.pt+S+V+O’ structure

There were three categories of errors produced in the ‘Aux.v+Neg.pt+S+V+O’ structure. The first error type was that L2 Mandarin word order of the negative Yes-no question ‘S+Neg.pt+V+O’ was produced to place the equivalent sentence structure

in English. For example, *‘He didn’t like to live in that house?’, *‘She didn’t turn off the light last night?’, and *‘She could not use the computer?’. The beginner learners produced more L2 Mandarin negative Yes-no questions in the oral production. Regarding the ‘L2 status factor’ in L3A, (Bardel & Falk, 2007) conducted a study of the initial state in relation to the placement of a negation in a sentence, and indicated that syntactic structures were more easily conveyed from L2 than from L1. The results from the beginner learners were consistent with the findings.

The second error type was that L1 Yi word order of the negative Yes-no question ‘S+O+Neg.pt+V’ structure was produced instead of the equivalent sentence in English. For example, *‘I in house no like live in?’, *‘Last night I the light no turn off?’, and *‘He that house live don’t like?’. The word order of the L1 Yi negative Yes-no question was used in these sentences, and the preposition phrase PP was moved especially to the beginning of the sentence. In L1 Yi grammar, the rule is to position the preposition phrase PP before the main verb. It seemed that L1 Yi grammatical knowledge was applied to produce the equivalent sentence in the L3 English interrogative structure in the oral production task.

The third error type was that sentences of a combination of L1 Yi and L3 English word order were produced in the ‘Aux.v+Neg.pt+S+V+O’ structure. For example, *‘Did she the light turn off?’, *‘Could she computer use?’, and *‘Last night do she the light didn’t turn off?’. In these sentences, the word order of the L1 Yi affirmative or negative Yes-no question was used in the main structure, but the beginner learners also applied the ‘do’ support to demonstrate the question marking in English. That is, the errors from L1 Yi word order were examined and the English interrogative structure rule of the ‘do’ support was also applied. The beginner learners might combine the word order of L1 Yi and L3 English in the production of the negative Yes-no questions. At the same time, a rising intonation was used at the end of sentences to indicate the interrogative function in the negative Yes-no questions.

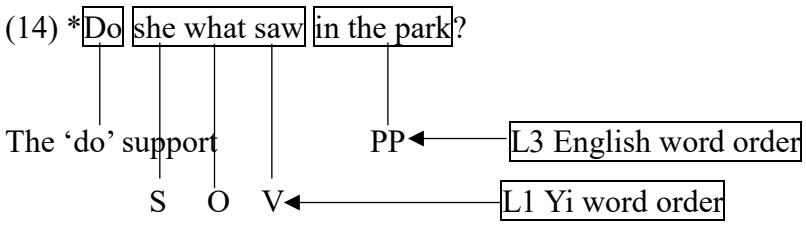
Except for the errors exemplified above, some beginner learners produced correct L3 English Yes-no question sentences, but the affirmative Yes-no question was produced instead of the negative Yes-no question in the oral production. For example, *‘Did he like to live in that house?’, *‘Did she turn off the light last night?’,

and *‘Could she use the computer?’. As the affirmative Yes-no question is more frequently used than the negative Yes-no question in L3 English, it seemed that the beginner learners produced more affirmative Yes-no questions than the negative Yes-no questions when instructed to produce a negative Yes-no question. From this point of view, interlingual errors of L3 English were produced in production of the ‘Aux.v+Neg.pt+S+V+O’ structure.

3. Wh-question (Wh-word as the object): ‘Int+Aux.v+S+V’ structure

In the interrogative structure ‘Int+Aux.v+S+V’, the beginner learners’ main errors were producing sentences of the interrogative question in L1 Yi or L2 Mandarin word order, or the error of a combination of L1 Yi and L3 English word order. That is, sentences with the Wh-question word order in L1 Yi or L2 Mandarin were applied to indicate the equivalent of L3 English word order in the oral production of English Wh-question sentences. As the word order of the interrogative structure of the equivalent in L1 Yi and L2 Mandarin are ‘S+V+Int’ and ‘S+Int+V’, respectively, sentences with such errors from L1 Yi and L2 Mandarin were produced. Thus, sentences with the word order from L1 Yi such as *‘She what made?’ and *‘He what played?’, and sentences with the word order from L2 Mandarin such as *‘She saw what?’ and *‘He made what?’ were produced. Besides, sentences with the word order of the affirmative Yes-no question of L1 Yi were also produced such as *‘She a toy car made?’. At the same time, the beginner learners used a rising intonation at the end of the sentence to show the question marking in this kind of error.

In addition, errors of a combination of L1 Yi and L3 English word order were found in the ‘Int+Aux.v+S+V’ structure, as shown in the tree diagram (14) below.



This sentence was produced in a combination of L1 Yi and L3 English word order. The English grammar rules that the ‘do’ support is needed in the interrogative structure and the preposition phrase PP should be positioned at the end of the sentence

were applied in this sentence. However, evidence of L1 Yi ‘S+O+V’ word order, i.e. *‘she what saw’ was applied. It is worth noting that errors of a combination from L1 Yi and L3 English word order were especially evident in the ‘Int+Aux.v+S+V’ structure.

In relation to the previous studies concerning interlingual errors, the errors that result from language transfer and originate from the learner’s native language are classified as interlingual errors (Brown, 2006; Gass & Selinker, 2008; Richards, 2015). Krashen (1981) also viewed L1 as the source language, and suggested that learners use L1 to initiate utterances if they lack the target language. The results from the beginner learners’ errors in the Wh-question ‘Int+Aux.v+S+V’ structure in the oral production task were in accordance with the findings. These errors might be committed due to the fact that the beginner learners had not fully mastered a certain grammatical feature for the interrogative structure in L3 English. Presumably, they were influenced by the similar features in L1 Yi word order, and the lack of linguistic knowledge in L1 Yi and L3 English word order may contribute to the errors in oral production of the word order in L3 English interrogative structures.

That is, interlingual errors are those that result from language transfer and originate from the learner’s native language, whereas intralingual errors are those due to faulty or partial learning of the sequential languages after L1 and L2, rather than from language transfer (Brown, 2006; Gass & Selinker, 2008; Richards, 2015).

Besides the interlingual errors mention above, the following examples revealed evidence of other intralingual errors. Evidence of errors that the beginner learners produced in the oral task was that the past tense of the main verb was not changed to the present tense after the Wh-question movement and the ‘do’ auxiliary inversion was used. For example, *‘What do she saw?’, and *‘What did he played?’ were this type of error. However, the grammar rule for the Wh-question in English is that the present tense should be used for the main verb after Wh-question movement and the ‘do’ support should be applied. It seemed that the basic grammatical rule for English interrogative structures was realised by the beginner learners, but the rule for the ‘do’ support and remaining in the present tense of the main verb were not well used at the early stage of L3 English acquisition by the beginner learners.

Errors of omission of the ‘do’ support were also observed and the past tense was not changed to verb base after applying the ‘do’ support. For example, these sentences, i.e. *‘What she made?’, *‘What she saw?’, and *‘What he played?’ were evidence of this kinds of error; “made” and “saw” are in the irregular past tense, but they were not identified and changed into the present tense as required in English grammar for the interrogative structure. In particular, this kind of error was frequently produced by the beginner learners at a lower English proficiency level. On the contrary, the beginner learners had fully mastered the rule of the Wh-movement in the English affirmative Yes-no question. According to the grammar rule of L1 Yi and L2 Mandarin, Wh-movement does not exist in the interrogative structure of L1 Yi and L2 Mandarin. Instead, the indicator of the affirmative or negative Yes-no question sentences in L1 Yi and L2 Mandarin is by adding a final particle at the end of sentence and using a rising intonation to indicate the question marking. Based on a comparison of the differences among the interrogative question rule in the three languages, the errors produced by the beginner learners as mentioned above might not be explained in terms of interlingual errors.

According to Richards et al. (1986), the major intralingual errors that L3 learners produce are due to ignorance of the rule restrictions. The errors most frequently revealed in the beginner learners’ oral task for the interrogative structures were omission of the ‘do’ support, misuse of the tense, misplacement of the negation, and so forth. These errors might be committed due to their ignorance of the rules, and they did not apply the rules in the context as required; thus, erroneous sentences were produced.

In addition, errors of other structures (excluded the word order of L1 Yi, L2 Mandarin, and L3 English) were found in the ‘Int+Aux.v+S+V’ structure. These errors did not exhibit the word order of L1 Yi, L2 Mandarin, and L3 English. For example, *‘What is she made it?’, *‘He what do play?’, *‘She saw what is?’, and *‘Is what played he football?’. These sentences were comprehensible in meaning but ungrammatical in terms of the word order in L3 English, and typically it was a clue that the interlingual errors of L1 Yi or L2 Mandarin were not evident. However, it revealed some obvious errors. For example, the object ‘it’ still remained when the

Wh-movement was used, and ‘what is’ was not placed at the beginning to produce an interrogative structure, and so forth.

Except for the errors regarding the word order discussed above, some other intralingual errors were found in the beginner learners’ work such as the verb tense confusion, and misuse of the irregular verb, plural forms, the third person singular, and subject-verb agreement. At the same time, the beginner learners placed the preposition phrase PP at the beginning of the sentence. It is a grammar rule in L1 Yi and L2 Mandarin, but the preposition PP is usually placed at the end of the sentence in English. As these errors are irrelevant to the word order errors examined in the current study, they were not specifically analysed and exemplified.

These errors might be explained in accordance with some of the previous research regarding intralingual errors. It is assumed that the hypothesised false concepts arise if a learner does not fully comprehend a distinction in the target language, and these are caused due to faulty or partial learning of the sequential languages after L1 and L2, rather than from language transfer (Brown, 2006; Gass & Selinker, 2008; Richards, 2015). Also, Touchie (1986) extended it with more examples. One case is that the teacher might teach that the present tense of the verb ‘be’ includes ‘am, is, are’, and the past tense includes ‘was, were’. However, the learners might falsely assume that ‘am, is, are’ is the marker for the present tense and ‘was, were’ is the past tense marker. Thus, they might produce sentences by confusing the present tense and past tense. Therefore, the errors presented above in the ‘Int+Aux.v+S+V’ structure might be committed due to intralingual errors.

Overall, the evidenced errors in the three interrogative structures showed that it was more difficult to produce the interrogative structures by the beginner learners because the word order of the three languages are typologically distant in the interrogative structures. Both interlingual errors of L1 Yi and L2 Mandarin word order were produced, and the interlingual errors from L1 Yi rather than L2 Mandarin took the lead. The beginner learners tended to employ L1 Yi interrogative structures when producing the equivalent interrogative structures in L3 English, even though interlingual errors from L2 Mandarin were also evidenced. At the same time, intralingual errors of L3 English were also examined. All of these errors might be

caused by many factors such as interlingual errors and intralingual errors. Overall, the beginner learners tended to apply the grammar of the three languages to facilitate the oral production of the interrogative structures in L3 English.

In relation to the overall findings, the Typological Primacy Model (TPM) could be used to account for the beginner learners' higher proportion of error rates in the interrogative structures than in the simple affirmative structures. According to Rothman's view of the TPM, the learners transfer the grammar properties of either L1 or L2 that are perceived to be typologically closer to the L3 (Rothman, 2011, 2015). In this study, the word order of the interrogative structures discussed for L1 Yi, L2 Mandarin, and L3 English are totally different and typologically distant. Thus, the negative influence from L1 Yi and L2 Mandarin word order was more evident rather than any positive influence, and a higher proportion of error rates was produced in the acquisition of L3 English interrogative structures, and these were indicators of the negative influence from L1 Yi and L2 Mandarin word order. Therefore, when the beginner learners produced sentences which were typologically distant in the syntactic properties, they encountered more obstacles for the production of the sentence structures in the target language.

Although evidence of intralingual errors was not as frequent as the interlingual errors in the oral task, this is also in line with the view proposed by Kellerman (1983), that beginner and elementary level learners show more prevalence for interlingual errors than intralingual errors in the acquisition of the second and additional languages. Therefore, both interlingual and intralingual errors occurred in the oral production of L3 English interrogative structures by the beginner learners.

Based on the analysis of the errors that the beginner learners produced in the oral production task of the interrogative structures in L3 English, the results revealed various errors which were different from the errors observed from the affirmative structures. As we can see, the word order in interrogative structures is totally different among L1 Yi, L2 Mandarin, and L3 English. The interrogative marking in L1 Yi and L2 Mandarin is ending a sentence with a final interrogative particle, while Wh-movement and 'do' support are applied to indicate the interrogative marking in L3 English. Therefore, these extreme differences are embedded in the interrogative

structures in the three languages. It is a complex process of L3 English acquisition of the interrogative structures, so various interlingual and intralingual errors were produced by the beginner learners in the interrogative structures.

To conclude, cross-linguistic influences from L1 Yi, L2 Mandarin, and other structures were examined in the oral production of L3 English word order. The errors produced in the interrogative structures showed more error types than the errors from the affirmative structures: L1≠L2&L3 and L1≠L2≠L3. Presumably, the beginner learners experienced more difficulties in producing the interrogative structures than the affirmative structures, and the negative influence from both L1 Yi and L2 Mandarin word order to L3 English production were examined. However, the interlingual errors of L1 word order were more evident than L2 Mandarin for the two cases, and various intralingual errors of L3 English were also evidenced. Therefore, the oral production of L3 English word order by the beginner learners showed greater complexity.

4.2.2 Results and discussions for the oral production errors of L3 English word order by the upper-intermediate learners

This subsection presents the upper-intermediate learners' results for the production errors of word order in the oral task, and discusses the findings. 4.2.2.1 focuses on the results and 4.2.2.2 concentrates on the discussions concerning the oral production errors by the upper-intermediate learners.

4.2.2.1 Results of the oral production errors of L3 English word order by the upper-intermediate learners

The upper-intermediate learners' results for the oral production errors of L3 English word order from the oral task were presented in the sequence of the sentence structures of Case 1: L1≠L2&L3 first, followed by the sentence structures of Case 2: L1≠L2≠L3. Since the upper-intermediate learners mainly produced errors in L3 English in the oral task, errors from L1 Yi word order were minor, and no errors from other structures were produced, and the focus in this part is on reporting the errors in L3 English.

Table 33: Upper-intermediate learners' oral production of L3 English word order in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting (L2=L3) word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%
S+V+O	0/90	0	0/90	0	0/90	0
S+V+O+to	2/90	2.2	0/90	0	0/90	0
S+V+IO+DO	1/90	1.1	0/90	0	0/90	0
Total	3/270	1.1	0/270	0	0/270	0

Table 33 shows that the upper-intermediate learners only produced errors from L3 English. there were no clues of error rates from L1 Yi word order and other structures were examined in the three affirmative structures for L1≠L2&L3. The minor errors from L3 English were 2.2% from the 'S+V+O+to' structure and 1.1% from the 'S+V+IO+DO' structures, and the proportion of error rates from these two structures were insignificant. The results indicated that the upper-intermediate learners succeeded in acquiring the affirmative structures in the oral production since only minor production errors were examined in their oral task.

Next, the upper-intermediate learners' results for the oral production of word order in the affirmative structures for L1≠L2≠L3 are presented in Table 34.

Table 34: Upper-intermediate learners' oral production of L3 English word order in the affirmative structures: L1≠L2≠L3

English structures	Errors reflecting L3 word order		Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%	Ratio	%
S+V+O+PP	0/90	0	0/90	0	0/90	0	0/90	0
O(patient)+Be+ V3+by+S(agent)	39/90	43.3	0/90	0	8/90	8.9	0/90	0
S+V+to	0/90	0	1/90	1.1	0/90	0	0/90	0
Total	39/270	14.4	1/270	0.37	8/270	3	0/270	0

Table 34 exhibits that production errors only occurred in the passive voice sentence structures, and no errors from any languages were examined in the 'S+V+O+PP' structure and 'S+V+to' structure. The error rates produced in the passive voice sentences were as high as 43.3%, whereas error rates from L1 Yi word order were 8.9% from the same sentence structure. It is worth noting that these were errors produced by the upper-intermediate learners from the word order of L1 Yi in the oral task. Therefore, the errors of L3 English were noticeable Case 2: L1≠L2≠L3.

However, the errors that were produced by the upper-intermediate learners were various, as shown in Table 35 below.

Table 35: Production of various errors from L3 English in the passive voice sentence

Error types	Omission of the copular 'be'	Substitution of the active voice (declarative sentence)	Omission of the infinitive 'to'	Other errors
Number of errors (39 items)	15 items	20 items	1 item	3 items
Ratio of errors	38.47%	51.28%	2.6%	7.7%

Table 35 presents the various error types that the upper-intermediate learners produced in L3 English. The major errors were omission of the copular 'be' at 38.47%, and substitution of the active voice (declarative sentence) for the passive voice at 51.28%; minor errors were omission of the infinitive 'to' at 2.6%, and other errors were 7.7%.

The upper-intermediate learners' results for the oral production of word order in the interrogative structures for L1≠L2≠L3 are presented in Table 36 below.

Table 36: Upper-intermediate learners' oral production of L3 English word order in the interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L3 word order		Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%	Ratio	%

Aux.v+S+V+O	7/90	7.8	0/90	0	0/90	0	0/90	0
Aux.v+Neg.pt+ S+V+O	75/90	83.3	0/90	0	0/90	0	0/90	0
Int+Aux.v+S+V	41/90	45.6	0/90	0	0/90	0	0/90	0
Total	123/270	45.6	0/270	0	0/270	0	0/270	0

Table 36 indicates that the upper-intermediate learners only produced errors of L3 English, and evidence of errors from L1 Yi, L2 Mandarin and other structures was not produced in the oral task for interrogative structures. The highest error rate of 83.3% was produced in the negative Yes-no question 'Aux.v+Neg.pt+S+V+O' structure, the error rates in the Wh-question 'Int+Aux.v+S+V' structure ranked second at 45.6%, and the lowest error rate was 7.8% in the affirmative Yes-no question 'Aux.v+S+V+O' structure. Therefore, the upper-intermediate learners frequently produced errors in the interrogative structures, and these errors reflected L3 English grammatical errors. They were not negatively influenced by the prior languages in the process of oral production of L3 English interrogative structures.

Since the oral production errors that the upper-intermediate learners made reflected various error types from L3 English word order, the error types were analysed and presented in Table 37 below.

Table 37: Oral production of various errors from L3 English in the interrogative structures

English structures	Error types	Number of errors (123 items)	%
Affirmative Yes-no question: Aux.v+S+V+O	Use of the Wh-question	6 items	4.9%
	Use of the copular 'be' to ask a question	1 item	0.8%
Negative Yes-no question: Aux.v+Neg.pt+S+V+O	Substitution of an affirmative Yes-no question for the negative Yes-no question	72 items	58.5%
	Use of the 'if' conditional to report a question	3 items	2.4%
Wh-question as the object: Int+Aux.v+S+V	Omission of the 'do' support	6 items	4.88%
	Omission of the 'do' support and use of the past tense for the main verb	8 items	6.5%

	Use of the past tense for both the ‘do’ support and the main verb, or use of the present tense for the ‘do’ support and the past tense for the main verb	19 items	15.4%
	Other errors from L3	8 items	6.5%

Table 37 shows that the upper-intermediate learners produced various error types in each interrogative structure. The most frequently produced error was substitution of an affirmative Ye-no question for a negative Yes-no question from the negative Yes-no question Aux.v+Neg.pt+S+V+O structure, with the highest proportion of the error rates at 58.5% was produced in the interrogative structures in the oral task. The error rate ranking second was from the Wh-question as the object, with the proportion at 15.4%, and these errors were use of the past tense for both the ‘do’ support and the main verb, or use of the present tense for the ‘do’ support and the past tense for the main verb.

Except for the most frequently produced error types mentioned above, the following error types were less frequent with the average error rates below 7%, but they were evidenced in the oral production of the interrogative structures by the upper-intermediate learners. These errors were using the Wh-question and the copular ‘be’ to ask a question from an affirmative Yes-no question, using the ‘if’ conditional to report a question from a negative Yes-no question, and errors from the interrogative Wh-question as the object such as omission of the ‘do’ support and the remains of the verb stem, omission of the ‘do’ support and use of the past tense for the main verb, and some other errors.

To summarise, various errors from L3 English were produced by the upper-intermediate learners in the oral production task. They produced more production errors in L3 English, except for a few errors of L1 Yi word order in the passive voice. Overall, cross-linguistic influences from L1 Yi and L2 Mandarin were not evident in the upper-intermediate learners’ oral production task, whereas L3 English errors took a lead in the acquisition of the interrogative structures in the oral form.

4.2.2.2 Discussions of oral production errors of L3 English word order by the upper-intermediate learners

Based on the findings in the oral production errors of L3 English word order by the upper-intermediate learners, this part discusses the findings in relation to the previous research. The findings were discussed in relation to the relevant previous research concerning the Typological Primacy Model (TPM) in L3A (see 2.1.3.3), the 'L2 status factor' theory in L3A (see 2.1.3.4), Error Analysis (see 2.3.3), and Interlanguage (see 2.3.4).

As presented in Section 4.2.2.1, the results from the upper-intermediate learners' oral production task showed that the production errors from L3 English were predominant, while the errors from L1 Yi, L2 Mandarin, and other structures were less frequent since only a few errors from L1 Yi word order were examined. Accordingly, following Richards (1989) views concerning the error analysis theory, interlingual errors occur as a result of 'the use of elements from one language while speaking another; intralingual errors reflect the general characteristics of rule learning, such as faulty generalisation, incomplete application of rules, and failure to learn the conditions under which various rules apply in the target language. Consistently, the errors by the upper-intermediate learners' oral task revealed a variety of errors in relation to L3 English grammar. Furthermore, Ellis (2008) claims that competence errors of interlingual errors (transfer) and intralingual errors could explain the error sources in L3 acquisition. The errors found in the target L3 English were discussed from the perspective of intralingual errors, whereas errors which reflected L1 Yi word order were discussed in terms of interlingual errors.

The erroneous sentences produced by the upper-intermediate learners in both affirmative and interrogative structures in the oral task are extracted and presented below.

Table 38: Examples of the upper-intermediate learners' intralingual errors from the oral production in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting L3 English grammar
S+V+O	-
S+V+O+to	*The teacher ask her do homework. *The teacher ask her finish her homework.
S+V+IO+DO	*Per send him a cake.

Three error types from L3 English were revealed from the upper-intermediate learners' oral production in the affirmative structures for L1≠L2&L3. That is, in the 'S+V+O+to' structure, the infinitive 'to' and subject-verb agreement were omitted such as *'The teacher ask her do homework' and *'The teacher ask her finish her homework' in the 'S+V+IO+DO' structure, the preposition 'to' should be included. The rule for the subject-verb agreement was omitted such as *'Per send to him a cake'. In the English grammar rule for the sentence with double objects, if the indirect object 'IO' precedes the direct object 'DO', the preposition 'to' is redundant, and the correct sentence should be 'Per sends him a cake, whereas, if 'DO' precedes 'IO', the preposition 'to' is necessary and the correct sentence should be 'Per sends a cake to him'.

Regarding the sources of intralingual errors, Richards et al. (1986) summarized various strategies of intralingual errors that the learners applied in the process of L3A, and the most frequently used strategy was incomplete application of the rules. The error of omission of the infinitive 'to' could be explained with this strategy. The upper-intermediate learners probably did not apply the rule of using the verb 'ask' (ask…to…), but failed to apply this rule in the 'S+V+O+to' structure. Besides, Richards et al. (1986) further pointed out another strategy of intralingual errors, the ignorance of rule restrictions. From the data, the rule of subject-verb agreement tended to be ignored in the oral production such as omission of the present tense morpheme 's' occurred when the subject was singular.

Obviously, these oral production errors were attributed to intralingual errors of L3 English, and these were irrelevant to the interlingual errors of L1 Yi and L2

Mandarin word order. Therefore, cross-linguistic influences from the prior languages were not evident in the upper-intermediate learners' oral production task in the affirmative structures for L1≠L2&L3. They produced intralingual errors of the target L3 English.

Similarly, the errors produced in the affirmative structures for L1≠L2≠L3 were dominant in L3 English, except for a small proportion of errors from L1 Yi word order. It is worth noting that the errors were exclusively in the passive voice sentence. Therefore, the intralingual errors of L3 English and interlingual errors of L1 Yi word order are extracted and elaborated in the table below, respectively.

Table 39: Examples of the upper-intermediate learners' intralingual errors from the passive voice sentences in the oral production

Error types	Errors reflecting L3 English grammar
Omission of copular 'be'	*This cake made by her. *The classroom cleaned by Jody. *The picture by my mom. *The classroom cleaned by students. *The picture by my teacher.
Substitution of the active voice (declarative sentence) for the passive voice	*My teacher draw the picture. *Tom cleaned the classroom. *Susan draw the picture. *I cleaned the classroom. *Grandma make the cakes. *Lisa cleaned the classroom. *Lisa draw the picture.
Omission of the infinitive 'to'	*Susan hope receive a flower for her birthday gift.
Other errors	*It was drawn the picture by Max. *It was cleaned the classroom by myself.

The intralingual errors in passive voice sentences were the copular 'be' omission, substitution of the active voice (using a declarative sentence) for the passive voice, omission of the infinitive 'to', and some other errors.

Among these errors, the most frequently produced error was substitution of the active voice for the passive voice. The upper-intermediate learners showed good proficiency in oral production of L3 English in terms of affirmative structures since

they produced few errors, i.e. 2.2% and 1.1% were produced in ‘S+V+O+to’ structure and ‘S+V+IO+DO’ structure, respectively. However, when a passive voice sentence was required, correct declarative sentences were produced instead of the passive voice in the oral task. According to Gass & Selinker (2000), when L2 or additional language learners have difficulty using certain structures, a common phenomenon is that they tend to use less difficult sentence structures. Accordingly, the upper-intermediate learners might tend to use simple sentence structures rather than the passive voice since the active voice sentence is much easier to be acquired prior to the passive voice, or they might deem the passive voice is much more difficult to produce than the active voice. Moreover, the passive voice sentence is seldom used compared with the active voice, particularly in oral communication. Therefore, the phenomenon of frequently using a declarative sentence when a passive voice sentence was required might be attributed to the upper-intermediate learners’ tendency to not prefer this structure.

Besides, the copular ‘be’ was frequently omitted by the upper-intermediate learners when a passive voice sentence was produced orally. Sentences with omission of the copular ‘be’ such as *‘This cake made by her’ and *‘The picture drawned by my teacher’ were produced in the oral production task. Additionally, some other errors were also evidenced. For example, omission of the correct subject-verb agreement such as using ‘make’ for ‘makes’, false use of the past tense for irregular verbs such as using ‘drawed’ for ‘drew’, omission of the infinitive ‘to’ such as using ‘hope’ for ‘hope to’, and misuse of the word order for the passive voice such as producing *‘It was drawn the picture by Max’ for ‘The picture was drawn by Max’.

These errors might be caused by intralingual errors because the learners probably applied strategies of overgeneralisation (Richards et al. (1986). For instance, the past tense of the irregular verb ‘drew’ was overgeneralised to ‘drawed’ by following the normal rule of adding ‘ed’ to the regular verb. Meanwhile, the word order rule for the passive voice sentence in L3 English was not well developed in this sentence such as *‘It was drawn the picture by Max’. Thus, a deviant sentence structure on the basis of other structures in the target L3 English was created, and intralingual errors were assumed to occur.

In addition to the intralingual errors found in the passive voice sentence, intralingual errors of L1 Yi word order were also traced. Errors reflecting L1 Yi word order are presented in Table 40 and discussed according to the previous research.

Table 40: Examples of the upper-intermediate learners' interlingual errors from the oral production in the passive voice

Error types	Errors reflecting L1 word order
Errors from L1 word order	S(agent)+Be+O(patient)+V3 *Mary was the cake made. *Tony was picture drawn. *Liming was classroom cleaned. *Yuhua was the picture drawn. *The girl was the picture drawn. *I was the classroom cleaned.

Errors from the upper-intermediate learners' oral production in the passive voice were produced in L1 Yi word order. The word order of the passive voice in L1 Yi is 'O(patient)+S+Agt.pt+V'. However, the word order of the erroneous sentences produced by the upper-intermediate learners was 'S(agent)+Be+O(patient)+V3' such as *'Mary was the cake made' and *'Liming was classroom cleaned'. These sentences applied the SOV word order rule of the active voice sentence rather than the passive voice in L1 Yi. These errors might be attributed to interlingual errors from L1 Yi word order. Lott (1983) elaborated sources of interlingual errors in terms of cross-linguistic influence. When the learner utilises lexical or grammatical features of the prior languages, rather than those of the target language, transfer of structure arises. Accordingly, in the upper-intermediate learners' oral production, the L1 Yi grammatical features of the word order rule were applied in the passive voice. Thus, interlingual errors of L1 Yi were evident, and L1 Yi appeared to be an interference when the upper-intermediate learners orally produced the passive voice in L3 English.

Likewise, as shown in the results for the oral production errors of L3 English word order in the interrogative structures (L1≠L2≠L3) by the upper-intermediate learners, only intralingual errors from the target L3 English were produced, and no interlingual errors of L1Yi, L2 Mandarin and other structures were found. It is worth

noting that various intralingual errors were revealed in the three interrogative structures, so these errors are exemplified and discussed below.

Table 41: Examples of the upper-intermediate learners' intralingual errors from the oral production in the affirmative Yes-no question

Error types	Errors reflecting L3 English grammar
Substitution of a Wh-question sentence for the affirmative Yes-no question	*What he know who was crying? *Where he find the key? *Where did he find his key? *When he arrived at school?
Use of the copular 'be' to propose a question	*Was he know the girl who was crying?

The errors produced by the upper-intermediate learners in this case were substituting a Wh-question sentence for the affirmative Yes-no question and using the copular 'be' to ask a question. The most frequently produced error was the first category that the learners proposed a Wh-question sentence by using Wh-question words such as 'what', 'where', 'when', instead of an affirmative Yes-no question which was aimed to be elicited. For instance, the Wh-question sentence *'Where he find the key?' was produced instead of the expected affirmative sentence 'Did he find the key?'. The phenomenon of substituting a Wh-question sentence for an affirmative Yes-no question might be explained with the claim proposed by Touchie. Touchie (1986) assumed that false conceptualisation arises when the learner committed faulty understanding of the distinctions of the target language items. As shown in the example dialogue in the oral task below, an affirmative Yes-no question aimed to be elicited according to the underlined part in the answer, but the learner might hypothesise the Wh-question word 'when' would be required when the words relevant to time such as 'on time' appeared in the answer. Therefore, they produced an unexpected Wh-question sentence instead of a required affirmative Yes-no question (see 3.3.2.2 for details). An example is presented in (15) below.

(15) A:_____?

B: Yes, he arrived at school on time.

Besides, other intralingual errors of omission of the ‘do’ support and faulty use of the verb tense such as *‘What he know who was crying?’ and *‘When he arrived at school?’. These errors might be committed due to the learners’ ignorance of the rules regarding agreement of the Wh-movement and ‘do’ support, and the remains of the verb stem in the interrogative structure. Obviously, these errors could be explained with the claim proposed by Richards et al. (1986) that the learners failed to apply the rules when they ignored the rule restriction or did not fully master the rules. The ‘do’ support is needed when a Wh-movement is used, and the verb stem remains. However, the upper-intermediate learners did not simply apply the word order of the prior language in the target language production, instead, they applied a faulty understanding of the linguistic knowledge of L3 English; thus, erroneous sentences were produced. Therefore, intralingual errors of L3 English appeared to be predominant in the oral production of the L3 English affirmative structures.

Similarly, intralingual errors were prevalent in the upper-intermediate learners’ oral production of negative Yes-no questions. The examples are presented and discussed in the table below.

Table 42: Examples of the upper-intermediate learners’ intralingual errors from the oral production in the negative Yes-no question

Error types	Errors reflecting L3 English grammar
Substitution of an affirmative Yes-no question for the negative Yes-no question	*Did he like to live in that house? *Did she turn off the light last night? *Can she use the computer? *Could she use the computer? *Did she could use the computer?
Use of the ‘if’ conditional to report a question	*If he like to live in that house? *If he turn off the light last night? *If she could use the computer?

The production errors in the upper-intermediate learners’ oral task were substituting an affirmative Yes-no question for the negative Yes-no question and using the ‘if’ conditional in indirect speech to propose a question. The production errors from the first category were as high as 58.9%, making up a high proportion, and the expected negative Yes-no question was not elicited. Instead, the affirmative

Yes-no questions instead of negative Yes-no questions were produced orally, and these were correct sentences. The example of the oral task format for eliciting the negative Yes-no question is presented below to explain the source of such errors. The learners were induced to ask a question orally to answer the underlined words in the sentence and an example was provided in (16) below (see 3.3.2.2 for details).

(16) A:_____?

B: No, she did not turn off the light last night.

In terms of the various strategies of causing intralingual errors that the learners used, Touchie (1986) claimed that the learner hypothesised false concepts he/she does not fully comprehend a distinction in the target language. Accordingly, the problem of substitution might occur due to the upper-intermediate learners' faulty distinction between an affirmative Yes-no question and a negative Yes-no question, or their misunderstanding of the task's purpose was to form an affirmative Yes-no question rather than a negative Yes-no question. Additionally, in relation to the psycholinguistic processes of interlanguage, Tarone (Tarone, 2012) claimed that learners used the various strategies to communicate in order to convey meaning by using the interlanguage system. Relevant to this study, learners might prefer to use an affirmative Yes-no question in a communicative context since it is less difficult to produce orally compared with a negative Yes-no question. The strategy of communication might be attempted by the learners. Thus, the upper-intermediate learners tended to not prefer to orally produce negative Yes-no questions, and a high proportion of affirmative Yes-no questions was produced orally if a negative Yes-no question was expected to be elicited.

The source of the second intralingual error (misuse of the 'if' conditional) could be also explained with the hypothesised false concepts (Richards et al. (1986). The function of the 'if' conditional is indirect reporting of an affirmative Yes-no question in the form of a statement rather than an interrogative structure. This type of error occurred probably due to the learner's faulty conceptualisation of the 'if' conditional in the clause, and used it to propose a question as required in an interrogative

structure. Therefore, erroneous sentences such as *‘If he like to live in that house?’ and *‘If she could use the computer?’ were produced.

Besides, some other errors such as using both the ‘do’ support and modal verb in the interrogative sentence were produced. It might be caused by the learner’s ignorance of the rule restrictions as claimed by (Richards et al. (1986). According to the English grammar rules, the ‘do’ support and a modal verb are not compatible in a single sentence, that is, either choose the ‘do’ support or the modal verb. However, this grammar rule was not observed by the upper-intermediate learners in the oral production.

Similarly, a variety of intralingual errors were produced by the upper-intermediate learners in the Wh-question sentences. Examples of the relevant errors are presented in the table below and discussed in relation to the previous research.

Table 43: Examples of the upper-intermediate learners’ intralingual errors from the oral production in the Wh-question sentence

Error types	Errors reflecting L3 English grammar
Omission of the ‘do’ support	*What she see? *What she make?
Omission of the ‘do’ support and use of the past tense for the main verb	*What she made? *What he like played? *What he like played? *What made she?
Use of the past tense for both the ‘do’ support and the main verb, or use of the present tense for the ‘do’ support and the past tense for the main verb	*What did she made? *What did she saw? *What did she saw in the zoo? *What did he played? *What does she made?
The copular ‘be’ was inverted instead of the ‘do’ support	*What is he played? *What is she played? *What activity is he played? *What Susan is see? *What are did he?
Other errors	*What sports did he can play? *Who did a toy card?

The intralingual errors produced in the upper-intermediate learners’ oral task were divided into four categories.

The first category was omission of the ‘do’ support such as *‘What she see?’ and *‘What she make?’. The rule of applying the ‘do’ support in the interrogative structure was omitted, but the rule of Wh-movement was identified and utilised.

The second category was that the ‘do’ support was omitted but the past tense of the main verb remained. For instance, in the erroneous sentences *‘What she made?’ and *‘What he like played?’, the ‘do’ support was omitted, and the past tense of the main verbs ‘made’ and ‘played’ was not changed.

The third category was using the past tense for both the ‘do’ support and the main verb, or using the present tense for the ‘do’ support and the past tense for the main verb. This category was the most frequently produced error in Wh-question sentences, with an error percentage of 15.4%. In English grammar, using the ‘do’ support and Wh-movement, and retaining the base form of the main verb are necessary when triggering a Wh-question. However, erroneous sentences such as *‘What did she made?’ and *‘What did he played?’ were produced orally. In addition, the error of using the present tense for the ‘do’ support and the past tense for the main verb in a single sentence was produced such as *‘What does she made?’.

The last category was some errors which did not reveal obvious errors of the L3 English grammar rules. However, these errors exhibited some similarities. For example, the copular ‘be’ was used with the past tense of the main verb in these five erroneous sentences: *‘What is he played?’, *‘What is she played?’, *‘What activity is he played?’, *‘What Susan is see?’, and *‘What are did he?’. The copular ‘be’ might be functioning as the ‘do’ support, and the past tense of the main verb was not changed into the base form. Besides, few other errors such as *‘What sports did he can play?’ and *‘Who did a toy card?’ were also examined.

Similarities were revealed from the above-analysed errors that were produced in the Wh-question sentences by the upper-intermediate learners. That is, these errors of omission of the ‘do’ support, faulty use of the verb tense, and some other errors were easily committed when the learners ignored the grammatical rules or due to incomplete application of the rules in the process of orally producing the required sentence structures. These errors might be explained based on James (1998)’s claim

concerning intralingual errors. That is, the learner fails to observe the restrictions of the existing structures and produces various intralingual errors due to ignorance of the rule restrictions. Thus, errors occur if the learner fails to apply the rules correctly.

Besides, a few erroneous sentences did not reveal obvious errors of the L3 English grammar rules. These erroneous sentences were *'What made she?', *'What sports did he can play?', and *'Who did a toy card?'. It appeared that these errors could not be explained as intralingual errors since errors of the L3 English grammatical rules were not evidenced. In relation to the oral production of this category, Corder (1973) pointed out that errors are the selection of the wrong style, dialect, or variety; Ellis (2008:58) proposed psycholinguistic sources of errors and divided these error sources into errors of competence and mistakes of performance. Ellis (2008) further elaborated that performance mistakes might be due to processing problems and communication strategies. Accordingly, these erroneous sentences might be produced because the learner probably used some fault strategies, or selected the wrong sentence style during the oral production.

To sum up, based on analysis of the results, the error analysis theory of intralingual and interlingual errors was reviewed in order to discuss the findings for the upper-intermediate learners' oral production errors in L3A. The two types of error committed were competence errors of intralingual errors and performance mistakes. The intralingual errors committed by the upper-intermediate learners in the oral task included overgeneralisation, ignorance of rule restrictions, incomplete application of the rules, and hypothesised false concepts. The intralingual errors revealed in the upper-intermediate learners' oral task could facilitate in explaining the sources and causes of the errors, and the facilitative remedy for these errors were explored. It indicated that intralingual errors of the target L3 English were predominant in the oral production in both the affirmative and interrogative structures, and cross-linguistic influences from the prior languages L1 Yi and L2 Mandarin were not frequent. Therefore, the upper-intermediate learners were recommended to identify these intralingual errors and avoid committing these errors in the acquisition of L3 A in the oral production.

4.2.3 Comparison and contrast of the oral production errors of L3 English word order between the beginner and upper-intermediate learner groups

This part compares and discusses the similarities and differences of the production errors produced by the beginner and upper-intermediate learners in the oral task regarding L3 English word order of affirmative and interrogative structures.

Table 44: Comparison and contrast of error rates between the two groups of learners in the oral production task

Error rates / Learners	Affirmative structure: L1≠L2&L3		Affirmative structure: L1≠L2≠L3			Interrogative structure: L1≠L2≠L3		
	L1	Others	L2	L1	Others	L2	L1	Others
Beginners	23.9%	4.1%	11.9%	22.7%	1.9%	12.3%	18.1%	2.2%
Upper-intermediates	0%	0%	0.37%	3%	0%	0%	0%	0%
Total	11.95%	2.05%	6.14%	12.85%	0.95%	6.15%	9.05%	1.1%

Note: ‘L1’ means errors reflecting L1 Yi word order; ‘L2’ means errors reflecting L2 Mandarin word order; ‘Others’ means errors reflecting other structures.

Obviously, the table shows that the error rates produced were totally different between the beginner learners and the upper-intermediate learners in the oral task. A higher proportion of error rates were produced orally by the beginner learners from L1 Yi and L2 Mandarin than the upper-intermediate learners. That is, the error rates were 11.95% from L1 Yi word order in the affirmative structure: L1≠L2&L3, were 11.9% from L2 Mandarin word order and 22.7% from L1 Yi word order in the affirmative structure: L1≠L2≠L3, were 12.3% from L2 Mandarin word order and 18.1% from L1 Yi word order. However, the overall errors produced by the upper-intermediate learners were few with respect to the word order of the three languages and other structures in this task.

The findings of the beginner learners indicated that cross-linguistic influence from L1 Yi and L2 Mandarin word order was prevalent since the interlingual errors took up a big proportion in their oral production errors in the acquisition of L3 English word order in the oral production task. Comparatively, the findings from the

upper-intermediate learners demonstrated that intralingual errors occurred frequently in the oral production of affirmative and interrogative sentences.

The similarities displayed between the two groups of learners were that the two groups of learners committed fewer errors in the affirmative structures for L1≠L2&L3, and produced more errors in the affirmative structures and the interrogative structures for L1≠L2≠L3. It appeared that the learners at the two proficiency levels both encountered more oral production errors if the word order of the three languages was different. Besides, interlingual errors from L1 Yi word order were found in the passive voice sentences, and this type of error took a high proportion for the two groups of learners. Therefore, cross-linguistic influences from L1 Yi word order took a lead in the oral production of the passive voice sentences for both groups.

It is worth noting that both the beginner and upper-intermediate learners used a level intonation or falling intonation in the process of producing interrogative structures in the oral task, even for the affirmative Yes-no questions. According to the pronunciation rules in English, a rising intonation is used for an affirmative Yes-no question, and a falling intonation for a Wh-question. However, almost all learners at two proficiency levels committed intonation errors.

The differences between the two groups showed that the beginners produced more interlingual errors and suffered stronger negative influences from L1 Yi word order rather than L2 Mandarin word order; whereas the upper-intermediate learners produced more intralingual errors, and some cross-linguistic influences from prior languages were evident. In both the affirmative and interrogative structures, more erroneous sentences in L1 Yi word order were produced orally than in L2 Mandarin word order in oral production. However, the upper-intermediate learners committed various intralingual errors in the target L3 English. In particular, in oral production of the negative Yes-no questions, the beginner learners committed more interlingual errors of L2 Mandarin and L1 Yi word order, whereas the upper-intermediate learners exclusively produced intralingual errors.

The findings from the two groups of learners' oral production were consistent with the claim made by Taylor (1975). It claimed that more interlingual errors were produced by learners at an elementary level rather than learners at an intermediate or advanced level. Comparatively, he further found that the intermediate and advanced learners produced more intralingual errors than the learners of elementary level. For instance, the intermediate and advanced learners produced more intralingual errors due to overgeneralisation. Consistently, the results from the two groups of learners' oral production in this study confirmed this claim. On the contrary, the findings in the oral production disagreed with the claim stated by Ellis (2008) that the learners produce more intralingual errors in origin rather than interlingual errors even though the precise proportion of errors produced varies in different studies. As found from the oral production, whether the learners produced more intralingual errors or more interlingual errors was subjected to the learners' language proficiency level.

4.3 Conclusion

This chapter presented the results of written and oral production errors in L3 English word order for the two groups of learners in terms of affirmative and interrogative structures. The research questions regarding the learners' written and oral production errors in the acquisition of L3 English word order were answered. The hypotheses were supported accordingly. Both the beginner and upper-intermediate learners produced errors in the written and oral tasks, and some similarities and differences regarding production errors existed between the two learner groups; positive and negative transfer from L1 Yi and L2 Mandarin word order to L3 English were evidenced; the beginner and upper-intermediate learners were proved to produce both interlingual errors and intralingual errors. However, the upper-intermediate learners were found to produce more interlingual errors from L2 Mandarin word order and intralingual errors of L3 English, and fewer intralingual errors from L1 Yi word order, whereas the beginner learners were found to produce more interlingual errors from L1 Yi word order and fewer interlingual errors from L2 Mandarin word order and intralingual errors of L3 English.

The results indicated that more erroneous sentences were produced by the beginner learners than the upper-intermediate learners in the written and oral tasks. The two groups of learners produced fewer errors in the affirmative structures and produced more errors in the interrogative structures. The passive voice sentence was more complicated than the active voice sentence in the affirmative structures, and the interrogative structure was more complex than the affirmative structures, so these structures were considered to be more challenging to the two learner groups. The results further demonstrated that interlingual errors from L1 Yi word order were more evident than from L2 Mandarin word order and other structures by the beginner learners, whereas interlingual errors from L2 Mandarin word order and intralingual errors of target L3 English were more distinct by the upper-intermediate learners. Therefore, the beginner learners seemed to show more cross-linguistic influences from L1 Yi, and the upper-intermediate learners were influenced more by the 'L2 status factor' (see 2.1.3.4) and the target L3 English in the production of L3 English word order. The results showed that it is more difficult for the two groups of learners to produce interrogative structures than affirmative structures in the written and oral production of L3 English word order.

CHAPTER V
RESULTS AND DISCUSSIONS OF THE PERCEPTION TASK

This chapter presents the results and discussions of the study regarding the perception errors of L3 English word order by L1 Yi and L2 Mandarin learners. The perception errors were collected from the Grammaticality Judgement Tasks.

Four sections are included. 5.1 concentrates on the beginner learners' results and discussions for the perception errors of L3 English word order in 5.1.1 and 5.1.2, respectively. 5.1.1 focuses on the results, and 5.1.2 focuses on the discussions. 5.2 draws attention to the upper-intermediate learners' results and discussions for the perception errors in 5.2.1 and 5.2.2, respectively. 5.2.1 focuses on the results, and 5.2.2 focuses on the discussions. 5.3 provides a comparison and contrast of the perception errors between the beginner and upper-intermediate learner groups. 5.4 is the conclusion of the chapter.

This chapter aims to answer the research questions regarding the learners' perception errors in the acquisition of L3 English word order:

1. What are similarities and differences between the production and perception errors of word order in L3 English affirmative and interrogative structures by L1 Yi and L2 Mandarin learners?

2. Is transfer, whether negative or positive, evidenced from L1 Yi or L2 Mandarin to L3 English? If this exists, which language, L1 Yi or L2 Mandarin, has more influence on the acquisition of word order in L3 English affirmative and interrogative structures?

As the aim of the research questions was to explore the production and perception errors of word order in L3 English affirmative and interrogative structures by L1 Yi and L2 Mandarin learners, this chapter focuses on exploring the L1 Yi and L2 Mandarin learners' perception errors, and three hypotheses were posited:

Hypothesis 1: Similarities and differences exist between the production and perception errors of word order in L3 English affirmative and interrogative structures by L1 Yi and L2 Mandarin learners.

Hypothesis 2: Positive and negative transfer from L1 Yi and L2 Mandarin to L3 English is evidenced in the production of word order in affirmative and interrogative structures.

Hypothesis 3: With respect to negative transfer, the production and perception of L3 English word order of affirmative and interrogative structures are negatively influenced by both L1 Yi and L2 Mandarin. However, the negative transfer is more influenced by L2 Mandarin for learners with a higher L3 proficiency level, and more influenced by L1 Yi for learners with a lower L3 proficiency level.

In order to answer the research questions and test the hypotheses, two groups of learners' results and discussions for the perception errors of L3 English word order were presented and discussed sequentially.

5.1 Results and discussions for the perception errors of L3 English word order by the beginner learners (Grammaticality Judgement Tasks)

This section presents the beginner learners' results and discussions regarding the perception errors of L3 English word order through the grammaticality judgement tasks. 5.1.1 focuses on the beginner learners' results and 5.1.2 focuses on the discussions.

5.1.1 Results of the perception errors of L3 English word order by the beginner learners

The beginner learners' results regarding the perception errors of L3 English word order from the grammaticality judgement tasks are presented in the sequence of the sentence structures of Case 1: L1≠L2&L3 first, followed by the sentence structures of Case 2: L1≠L2≠L3.

The data for this part were collected from the results of the beginner learners' judgment of grammaticality and ungrammaticality of sentences. Their errors in the

perception of L3 English word order in the affirmative structures for L1≠L2&L3 are presented in Table 45.

Table 45: Beginner learners' perception errors of L3 English word order in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%
S+V+O	13/90	14.4	2/90	2.2
S+V+O+to	4/90	4.4	1/90	1.1
S+V+IO+DO	5/90	5.5	0/90	0
Total	22/270	8.1	3/270	1.1

The results showed that the average error rates reflecting L1 Yi word order were 8.1%, and the 1.1% error rates was from other structures. The highest error rates were from the 'S+V+O' structure, i.e. 14.4%. The perception error rates from the 'S+V+O+to and 'S+V+IO+DO' structures were much lower, i.e. 4.4% and 5.5%, respectively. The beginner learners demonstrated a good perception in the affirmative structures for L1≠L2&L3. It was less difficult for the beginner learners to perceive the correct sentences of L3 English word order, and they showed a good perception in the acquisition of L3 English word order in the affirmative structures for L1≠L2&L3. Meanwhile, errors reflecting other structures were also perceived by the beginner learners, with 2.2% of error rates from the 'S+V+O' structure and 1.1% was from the 'S+V+O+to' structure.

The beginner learners' results for the perception of word order in the affirmative structures for L1≠L2≠L3 are presented in Table 46.

Table 46: Beginner learners' perception errors of L3 English word order in the affirmative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%
S+V+O+PP	2/90	2.2	6/90	6.6	0/90	0
O(patient)+Be+V3 +by+S(agent)	0/90	0	14/90	15.6	0/90	0
S+V+to	19/90	21.1	6/90	6.6	0/90	0
Total	21/270	7.8	26/270	9.6	0/270	0

The results showed that the beginner learners exhibited perception errors from L1 Yi and L2 Mandarin word order in the affirmative structures for L1≠L2≠L3. That is, the average error rates from L1 Yi were 9.6%, and 7.8% from L2 Mandarin, respectively. Perception errors of word order for other structures were not found in the three structures. In detail, the beginner learners showed higher perception error rates from L1 Yi word order in the passive voice 'O(patient)+Be+V3+by+S(agent)' structure, at 15.6%. More perception errors from L2 Mandarin word order were exhibited in the 'S+V+to' structure, at 21.1%. However, only a few errors, i.e. 2.2% from L2 Mandarin word order and 6.6% from L1 Yi word order were found in perceiving the grammaticality of the 'S+V+O+PP' structure.

The results for the beginner learners' perception errors of L3 English word order in the interrogative structures for L1≠L2≠L3 are presented in Table 47.

Table 47: Beginner learners' perception errors of L3 English word order in the interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%
Aux.v+S+V+O	3/90	3.3	16/90	17.8	0/90	0
Aux.v+Neg.pt+S+V+O	9/90	10	12/90	13.3	0/90	0
Int+Aux.v+S+V	1/90	1.1	2/90	2.2	0/90	0
Total	13/270	5.4	30/270	11.1	0/270	0

The results from the beginner learners' perception errors of L3 English word order demonstrated that a greater influence from L1 Yi and L2 Mandarin word order was observed in the interrogative structures than in the affirmative structures. The average error rates from L2 Mandarin and L1 Yi were 5.4% and 11.1%, respectively. Perception errors of other structures were not found in the interrogative sentence structures. In each sentence structure, higher error rates were shown in L1 Yi word order more than L2 Mandarin word order in the affirmative Yes-no question 'Aux.v+S+V+O' structure and the negative Yes-no question 'Aux.v+Neg.pt+S+V+O' structure. That is, the error rates from L1 Yi were 17.8% for the affirmative Yes-no questions, and 13.3% for the negative Yes-no questions, and those from L2 Mandarin word order were 11.1% and 10%, respectively. Contrary to these two sentence structures, the error rates from the 'Int+Aux.v+S+V' structure were much lower, i.e. 1.1% from L2 Mandarin word order, and 2.2% from L1 Yi word order. It appeared that the beginner learners had a good perception for the 'Int+Aux.v+S+V' structure, but they also encountered some difficulties in perceiving the affirmative Yes-no questions and negative Yes-no questions.

Overall, the results showed that a low proportion of error rates were produced by the beginner learners in the perception task. The results indicated that fewer difficulties were encountered by the beginner learners in perceiving L3 English word order in the affirmative and interrogative structures. Although more perception errors were found in the interrogative structures than in the affirmative structures for the two cases: L1≠L2&L3 and L1≠L2≠L3, evidence of the beginner learners' perception of L3 acquisition of English word order was evident.

5.1.2 Discussions of the perception errors of L3 English word order by the beginner learners

This part discusses the findings based on the perception errors by the beginner learners' GJTs. The findings are discussed in the sequence of the sentence structures for Case 1: L1≠L2&L3 first, followed by the sentence structures for Case 2: L1≠L2≠L3. The findings for the perception errors of L3 English word order were discussed in parallel with some previous research such as the role of L1 and L2 in L3A (see 2.1.3.6), Cross-linguistic Influence (see 2.3.2), and Interlanguage (see 2.3.4).

It was shown in sub-section 5.1.1 that only a small proportion of the perception errors were found in the results of the beginner learners' GJTs. It is worth noting that the examples provided in this part were the perception errors by the beginner learners in the written form according to their judgment of the grammaticality and ungrammaticality of the targeted sentences, and corrections based on their judgement of the correct L3 English word order were required to be produced. Examples of these perception errors from L1 Yi and other structures in the affirmative structures: L1≠L2&L3 are presented in Table 48.

Table 48: Examples of the beginner learners' perception errors in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting L1 word order	Errors reflecting other structures
S+V+O	S+O+V *He the key left. *His the mom to room cleaned. S+O+V+V *He the key take left.	S+V+O *He has belong to school uniform himself. S+V+V+ reflective pron+N *He washed have belong to himself school uniform.
S+V+O+to	S+O+V+to *Her mom her reminded umbrella an to bring. *Susan him invited a dinner to have.	S+V+V+to *Susan have to invite a him dinner. S+V+O+to *Susan invited a dinner to have with him. S+V+V+O+to *She mom reminded bring an umbrella to her.
S+V+IO+DO	S+IO+DO+V	S+V+DO+IO

	* Her grandma her a story told. * His friend him book pass.	*She grandma told a story her. S+V+O *His friend and him passed the book. O+V+S *Her story told a grandma.

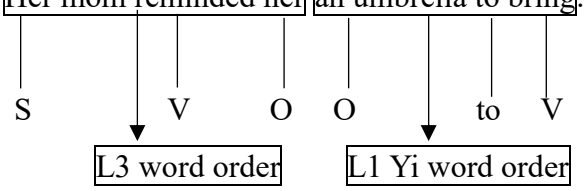
Examples in Table 48 are erroneous sentences produced by the beginner learners according to their judgement of the grammaticality of sentences designed in the word order of L1 Yi, L2 Mandarin, L3 English, and other structures in affirmative structures: L1≠L2&L3. As shown in the column 'Errors reflecting L1 Yi word order', sentences in L1 Yi word order were perceived as correct by a few beginner learners in three sentences structures. Sentences of other structures were produced based on the learners' judgement of grammaticality when some given sentences were judged as ungrammatical. For example, in the English 'S+V+O' structure, *'He has belong to school uniform himself' and *'He washed have belong to himself school uniform' were sentences of other structures; in the English 'S+V+O+to' structure, sentences of other structures were also produced such as *'Susan have to invite a him dinner' and *'She mom reminded bring an umbrella to her'; in the English 'S+V+IO+DO' structure, sentences such as *'She grandma told a story her' and *'Her story told a grandma' were produced. These sentences were irrelevant to the word order of affirmative structures in the three languages in this study, and they were ungrammatical and incomprehensible.

In relation to interlanguage, Tarone (2010) claims IL as a separate linguistic system that was clearly different from the learner's native language and the target language being learnt, but linked to both the native language and the target language by the interlingual identification from the learner's perception. In this case, the beginner learners perceived the erroneous sentences as correct, and this might be attributed to the interlanguage that the learners developed in the process of perceiving the target language. Thus, sentences of other structures which were irrelevant to L1 Yi, L2 Mandarin and L3 English were produced.

At the same time, some erroneous sentences revealed that a combination of L1 Yi and L3 English word order were produced. In the English 'S+V+O+to' structure,

for example, evidence of a combination of word order in L1 Yi and L3 English was found such as *‘Her mom reminded her an umbrella to bring’ and *‘The doctor told him the medicine to take’. The word order of this type is elaborated in the tree diagram below.

(17) *Her mom reminded her an umbrella to bring.



As shown in (17), L3 English word order ‘S+V+O’ was applied in the beginning of the sentence, followed by L1 Yi word order for the infinitive ‘to’ structure.

Besides, some sentences of misuse of the preposition ‘to’ and ‘for’ were examined. For example, erroneous sentences such as *‘He brother showed to him a photo’ and *‘His friend passed the book for him’ were found in the ‘S+V+IO+DO’ structure. Regarding the psychological processes in interlanguage, Tarone (Tarone, 2012) proposed that a learner tended to use a learning strategy of conscious attempt to master the target language through the conscious comparison of what is produced in interlanguage in the mother language and the perceived target language. Consistently, these perception errors might be committed due to the learning strategy that the beginner learner misused the prepositions ‘to’ and ‘for’.

Evidence of the beginner learners’ perception errors in the affirmative structures: L1≠L2≠L3 is shown below.

Table 49: Examples of beginner learners’ perception errors in the affirmative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order	Errors reflecting L1 word order	Errors reflecting other structures
S+V+O+PP	S+PP+V+O *She in the bag found a pen.	S+PP+O+V *She in bag pen find. *He in the park walk took.	-
O(patient)+ Be+V3+by +S(agent)	-	O(patient)+S+ Agt.pt + V *Henry was him by beaten. *The cake by his grandma was made.	-

S+V+to	S+V+V+O *Mary wanted return home. *He planned play football.	S+O+V+ V *Mary home return wanted. *He the moon hope go.	-

Table 49 provides some examples of the beginner learners' perception errors in the affirmative structures for L1≠L2≠L3. Only a few errors from L1 Yi and L2 Mandarin word order were observed. Some errors from L2 Mandarin word order 'S+PP+V+O' were perceived such as *'She in the bag found a pen'. Errors of L1 Yi word order 'S+PP+O+V' were also perceived such as *'She in bag pen find' and *'He in the park walk took'. In the passive voice sentence 'O(patient)+Be+V3+by+S(agent)' structure, more erroneous sentences of the L1 Yi passive voice word order were exhibited such as *'Henry was him by beaten' and *'The cake by his grandma was made', and these erroneous sentences were perceived as correct sentences of L3 English word order. However, these sentences were the word order for the L1 Yi passive voice structure. Besides, the passive voice sentence such as *'The farmer was cut down by the tree' and the active voice sentence such as *'Henry beat him' were produced when the beginner learners corrected the erroneous sentences according to their grammaticality judgement. Based on the perception errors exhibited in the passive voice of L1 Yi word order by the beginner learners, it seemed that the grammatical rules of L1 Yi passive voice were applied in the production of L3 English passive voice sentences. Comparatively, errors in the L2 passive voice structure were not evident in this structure.

In relation to L3A, Krashen (1981) suggested that learners may use L1 when initiating utterances if they lacked knowledge of the target language. To acquire L3, the learner might use L1 as the strategy to overcome any limitation regarding sequential language acquisition. The beginner learners' findings from the passive voice structure confirmed Krashen's claim regarding the perception errors in L1 Yi word order due to their lack of knowledge in the target L3 English.

In contrast to the passive voice 'O(patient)+Be+V3+by+S(agent)' structure, the 'S+V+to' structure showed an extremely different result. That is, errors of L2

Mandarin word order were perceived as correct sentences by the beginner learners. For example, *‘Mary wanted return home’ and ‘*He planned play football’ were sentences in L2 Mandarin word order. In these sentences, the infinitive ‘to’ is required to link the two verbs according to the English grammar rules, while this is not required in L2 Mandarin grammar. Thus, when the beginner learners judged the grammaticality of the sentence without the infinitive ‘to’ connected to the two verbs, they might not perceive the differences between L2 Mandarin and L3 English in the syntactic structure, and L2 Mandarin word order was applied by omitting the infinitive ‘to’ structure. The interlingual errors of L2 Mandarin were produced. The findings were consistent with Bardel and Falk (2007)’s claim that L2 morphosyntactic transfer into L3 is not only a possible factor, but a privileged factor at the initial state of L3A. Evidence of more interlingual errors from L2 Mandarin indicated that L2 Mandarin transfer is a privileged factor for the beginner learners.

Meanwhile, a few errors of L1 Yi word order such as *‘Mary home return wanted’ and *‘He the moon hope go’, in which the infinitive ‘to’ was omitted, were observed. An equivalent of the infinitive ‘to’ is not applied in the same sentence in L1 Yi word order. A major grammar feature in L1 Yi is that the object is positioned before the verb, so a sentence such as *‘The moon hope go’ was produced. Ellis (1985) claimed that L1 is a resource of knowledge that learners may use to facilitate the input and improve their performance with regard to L3 acquisition. Accordingly, the perception errors might be committed by the beginner learners in this study due to the L1 Yi’s influence. That is, L1 Yi, as the source language, influenced the acquisition of L3 English word order for the beginner learners. When the word order of L1 Yi and L2 Mandarin was different in this case, the learners tended to use L1 Yi as a facilitative input in order to acquire the target L3 English.

Evidence of the beginner learners’ perception errors in the interrogative structures: L1≠L2≠L3 is provided below.

Table 50: Examples of beginner learners' perception errors in the interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order	Errors reflecting L1 word order	Errors reflecting other structures
Aux.v+S+V+O	S+ PP+V+O **Henry at school left the bag?*	S+O+PP+V *Henry the bag at school left? S+O+V *He English contest attended?	-
Aux.v+Neg.pt+S+V+O	S+Neg.pt+V+O *Michael didn't attend the football match? S+Neg.pt+V+PP *She didn't prepare for the exam?	S+PP+Neg.pt+V *She for the exam did not prepare? S+O+Neg.pt b.*Christ homework no do?	-
Int+Aux.v+S+V	S+V+Int *She wanted which book? *He liked what?	O+Int+S+V *Book which she wanted? S+O+Int *She book which wanted?	-

Table 50 presents examples of the beginner learners' perception errors in interrogative structures for L1≠L2≠L3. In the affirmative Yes-no question 'Aux.v+S+V+O' structure, sentences of L2 Mandarin word order such as *'Henry at school left the bag?' and sentences of L1 Yi word order such as *'Henry the bag at school left?' and *'He English contest attended?' were judged correct by the beginner learners. In the negative Yes-no question 'Aux.v+Neg.pt+S+V+O' structure, perception errors were also found such as misjudgment of the grammaticality of the relevant sentences. For instance, the word order of the negative Yes-no question from L1 Yi word order was also examined, i.e. *'She for the exam did not prepare?' and *'Christ homework no do?' were produced from L1 Yi word order. However, these sentences were judged as correct L3 English word order by the beginner learners. It is worth noting that the declarative questions were also produced by the beginner learners when they corrected the erroneous sentences from the negative Yes-no question 'Aux.v+Neg.pt+S+V+O' structure, i.e. 'Michael didn't attend the football match?' and 'She didn't prepare for the exam?'. A rising intonation rather than a

falling intonation is required in a declarative question (See 4.2.1.2 on the declarative questions). However, it was found that the beginner learners used a falling intonation in the oral production of this sentence structure (See 4.2.1.2 on the finding of the negative Yes-no question). Therefore, the errors regarding this sentence structure were discussed in relation to L2 Mandarin word order in the perception task.

Meanwhile, a few perception errors from L1 Yi and L2 Mandarin word order were also observed when the Wh-word was the object in the 'Int+Aux.v+S+V' structure. For example, the perception errors from L2 Mandarin word order were shown in the sentence *'He liked what?', and those from L1 Yi word order were exhibited in the sentence *'Book which she wanted?'. These sentences were judged as correct L3 English word order by the beginner learners. In addition, sentences of other structures were found when they judged that the given sentences were ungrammatical in the 'Int+Aux.v+S+V' structure. For example, *'Which she wanted book?' and *'What liked he' were not the word order of the three languages discussed in this study.

The aforementioned results revealed evidence of the influence from L1 Yi or L2 Mandarin word order for the beginner learners' perception errors in the interrogative structures when judging the grammaticality of sentences. As an explanation of this result, Cenoz (Cenoz, 2001) assumes that L3A deals with two prior language systems, and whether to select L1 or L2 system as the source language is a priority that the learners needs to consider. The beginner learners might undergo a complex perception process of selecting L1 or L2 as the source language. As shown in the three interrogative structures, clues of interlingual errors from L1 Yi and L2 Mandarin word order were prevalent. These might be evidence of cross-linguistic influence from L1 Yi or L2 Mandarin. (De Angelis, 2007) claimed that cross-linguistic influence emerges in the perspective of the psychological process of perception, and it could explain how and under what conditions prior linguistic knowledge influences the perception and development of the target language. Based on the discussions, it seemed like the cross-linguistic influence from L1 Yi took a lead in the perception process of L3 English word order acquisition.

Besides, Flynn et al. (2004) proposed the Cumulative Enhancement Model (CEM) and argued that transfer into L3 can come from any previously acquired language, and these languages can be only facilitative in L3 acquisition. Consistently, the beginner learners were still at the initial state of L3 English acquisition. They exhibited more cross-linguistic influences from L1 Yi word order and L2 Mandarin word order since mores interlingual errors seemed to be more prevalent.

Except for the cross-linguistic of interlingual identification from L1 Yi and L2 Mandarin word order in the beginner learners' perception task, some other errors were also examined in their correction work based on their grammaticality judgement. These erroneous sentences were *'What he liked?', *'What does he liked?' and *'What he like?'. Errors such as omission of the 'do' support, and application of the past tense form of the 'do' support and past tense of the verb in the same sentence were produced by the beginner learners. In relation to these errors, Richards et al. (1986) assumed a type of intralingual errors, i.e. omission of the article 'the' and use of the 'zero article instead was incomplete application of the rules. Consistently, the errors committed by the beginner learners in the correction work of the interrogative structures might be attributed to intralingual errors of this type. The beginner learners might not fully apply the rules of composing L3 English interrogative structures; thus, intralingual errors occurred.

Based on the examples provided above, the cross-linguistic influences from L1 Yi and L2 Mandarin word order as well as intralingual errors of L3 English influenced in the process of developing the perception of the affirmative and interrogative structures by the beginner learners. Therefore, the findings for the beginner learners' perception task in the interrogative structures indicated that interlingual errors from L1 Yi and L2 Mandarin and intralingual errors of L3 English were observed in the perception process. The beginner learners were assumed to apply the linguistic knowledge of prior languages, both the positive or negative influence, in the perception of L3 English word order in interrogative structures. The results also demonstrated that L1 Yi had a greater influence than L2 Mandarin in the beginner learners' perception of L3 English word order for the interrogative structures. This confirmed Flynn et al. (2004)'s claim regarding the CEM that transfer

into L3 can come from any previous acquired language, and transfer from L1 or L2 can only be facilitative (see 2.3.2).

To sum up, the findings from the beginner learners demonstrated perception errors in judging the grammaticality of L3 English word order in the affirmative and interrogative structures for L1≠L2&L3 and L1≠L2≠L3. The results further indicated a greater cross-linguistic influence from L1 Yi word order than L2 Mandarin word order to L3 English. Accordingly, there were more perception errors in the case: L1≠L2≠L3 than in the case: L1≠L2&L3 examined. Presumably, when perceiving the grammaticality of L3 English word order, the beginner learners used more L1 Yi linguistic knowledge to facilitate their L3 English acquisition, with more interlingual errors from L1 Yi than L2 Mandarin word order.

5.2 Results and discussions for the perception errors of L3 English word order by the upper-intermediate learners (Grammaticality Judgement Tasks)

This section presents the upper-intermediate learners' results and discussions for the perception errors of L3 English word order. 5.2.1 focuses on the upper-intermediate learners' results and 5.2.2 focuses on the discussions.

5.2.1 Results of the perception errors of L3 English word order by the upper-intermediate learners

This subsection reports the results of upper-intermediate learners' perception errors of L3 English word order. The data were collected from the grammaticality judgement tasks. The findings were discussed in the sequence of the sentence structures of Case 1: L1≠L2&L3 first, followed by the sentence structures of Case 2: L1≠L2≠L3.

The learners were required to judge the grammaticality and ungrammaticality of the sentences. If they decided the given sentences are ungrammatical, corrections were needed accordingly. Therefore, according to the results of the perception errors of L3 English word order, the ratio of the erroneous sentences perceived by the upper-intermediate learners are provided below.

The data for this part were collected from the results of the upper-intermediate learners' judgement of the grammaticality and ungrammaticality of the sentences. The errors in the perception of L3 English word order in the affirmative structures for L1≠L2&L3 are presented in Table 51.

Table 51: Upper-intermediate learners' perception errors of L3 English word order in the affirmative structures: L1≠L2&L3

English structures	Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%
S+V+O	0/90	0	0/90	0
S+V+O+to	1/90	1	1/90	1
S+V+IO+DO	0/90	0	0/90	0
Total	1/270	0.3	1/270	0.3

As shown in Table 51, only two errors were found for the upper-intermediate learners' perception of L3 English word order in the affirmative structures: L1≠L2&L3. That is, one error reflecting L1 Yi word order and the other error reflecting other structures were examined in the 'S+V+O+to' structure. According to the data, the upper-intermediate learners exhibited a good perception of L3 English word order. Thus, this group of learners tended to be successful in perceiving L3 English word order in terms of the affirmative structures: L1≠L2&L3.

The upper-intermediate learners' results for the perception errors of word order in the affirmative structures: L1≠L2≠L3 are presented in Table 52.

Table 52: Upper-intermediate learners' perception errors of L3 English word order in the affirmative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%
S+V+O+PP	0/90	0	2/90	2	1/90	1
O(patient)+Be+V3 +by+S(agent)	2/90	2	1/90	1.1	0/90	0
S+V+to	22/90	24	1/90	1.1	0/90	0
Total	24/270	8.9	4/270	1.1	1/270	0.3

The results showed that the error rates for the upper-intermediate learners' perception of L3 English word order were slightly higher for the affirmative structures: L1≠L2≠L3 than for the affirmative structures: L1≠L2&L3, with average error rates of 8.9% reflecting L2 Mandarin word order and only 1.1% reflecting L1 Yi word order. The major perception errors particularly reflected L2 Mandarin word order, and they were mainly from the 'S+V+to' structure, i.e. 24% error rates. The errors revealed in this structure were omissions of the 'to' infinitive. By contrast, the average error rates for perception in terms of word order were less than 2% in the two other sentence structures of L2 Mandarin and in the three sentence structures of L1 Yi. Based on the results of the perception errors in these sentence structures, the upper-intermediate learners seemed to have a good perception in the affirmative structures: L1≠L2≠L3 except for a slight negative influence from L2 Mandarin word order in the 'S+V+to' structure.

The results for the upper-intermediate learners' perception errors of L3 English word order in the interrogative structures: L1≠L2≠L3 are presented in Table 53.

Table 53: Upper-intermediate learners' perception errors of L3 English word order in the interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order		Errors reflecting L1 word order		Errors reflecting other structures	
	Ratio	%	Ratio	%	Ratio	%
Aux.v+S+V+O	0/90	0	1/90	1.1	0/90	0

Aux.v+Neg.pt+S+V+O	16/90	17.8	1/90	1.1	0/90	0
Int+Aux.v+S+V	1/90	1.1	0/90	0	4/90	4.4
Total	44/270	6.3	2/270	0.74	4/270	1.5

Table 53 indicates that the error rates from the upper-intermediate learners' perception of L3 English word order in the interrogative structures: L1≠L2≠L3 mainly reflected L2 Mandarin word order even though minor errors reflecting L1 Yi word order and other structures were also examined. That is, the average error rates for perception of L3 English word order were 6.3% from L2 Mandarin word order, 0.74% from L1 Yi word order, and 1.5% from other structures. In particular, the major perception errors reflecting L2 Mandarin word order were from the 'Aux.v+Neg.pt+S+V+O' structure, i.e. 17.8 % among all the errors of L2 Mandarin word order, the error rates ranked the second reflected other structures, and these errors were from the 'Int+Aux.v+S+V' structure, i.e. 4.4% among the errors reflecting other structures. The results showed that the upper-intermediate learners had a good perception in perceiving L3 English word order of the interrogative structures: L1≠L2≠L3 even though a higher proportion of the error rates was examined especially in the 'Aux.v+Neg.pt+S+V+O' structure.

To sum up, the results showed that the upper-intermediate learners had a good perception in the acquisition of L3 English word order in terms of affirmative and interrogative structures. They encountered fewer difficulties in perceiving the correct L3 English word order, even though some interferences were mainly from L2 Mandarin word order. However, when the results of the perception errors were compared among the interrogative structures: L1≠L2≠L3, the affirmative structures: L1≠L2&L3, and the affirmative structures: L1≠L2≠L3, the highest proportion of the perception error rates were found in the interrogative structures: L1≠L2≠L3, followed by the a lower proportion of error rates for the affirmative structures: L1≠L2≠L3, and the smallest proportion of error rates for the affirmative structures: L1≠L2&L3. It is worth noting that the perception errors by the upper-intermediate learners were mainly examined from L2 Mandarin word order.

5.2.2 Discussions of the perception errors of L3 English word order by the upper-intermediate learners

This part discusses the results based on the findings in Section 5.2.1. Similarly, the results are discussed in the sequence of the sentence structures for Case 1: L1≠L2&L3 first, followed by the sentence structures for Case 2: L1≠L2≠L3. The findings were discussed in relation to the relevant previous research concerning the Typological Primacy Model (TPM) in L3A (see 2.1.3.3), intralingual errors in Error Analysis (see 2.3.3.1), and Interlanguage (see 2.3.4.1).

The results in Section 5.2.1 showed that the upper-intermediate learners had a good perception in the acquisition of L3 English affirmative and interrogative structures. That is, a very small proportion of perception errors, i.e. the average error rates below 2% was revealed in these sentences structures: in all three affirmative structures from Case 1: L1≠L2&L3, in two affirmative structures 'S+V+O+PP' and 'O(patient)+Be+V3+by+S(agent)', and in one interrogative structure 'Aux.v+S+V+O' from Case 2: L1≠L2≠L3. The perception errors reflected in the following affirmative and interrogative structures from Case 2: L1≠L2≠L3 were comparatively higher than in the abovementioned sentence structures. Therefore, this part focuses especially on the discussions of the perception errors reflected in these sentence structures as shown in Table 54.

Table 54: Examples of perception errors by upper-intermediate learners in affirmative and interrogative structures: L1≠L2≠L3

English structures	Errors reflecting L2 word order	Errors reflecting L1 word order	Errors reflecting other structures
S+V+to	S+V+V+O *Mary want return home. *He planned play football.	S+V+to+O+V *Mary wanted to home return.	-
Aux.v+Neg.pt+S+V+O	S+Neg.pt+V+PP * She did not prepare for the exam? S+Neg.pt+V+O * Michael didn't attend the football	S+PP+Neg.pt+V *She for the exam did not prepare?	-

	match?		
Int+Aux.v+ S+V	S+V+Int+O *She want which book?	-	Int+S+V+O *Which she wanted book? Int+V+to+O *What liked to him? Int+V+O *Which wanted a book? Int+V+S *What liked he?

Table 54 presents the errors that were examined in the perception task for the upper-intermediate learners. The highest perception error rates were examined in the 'S+V+to' structure by omission of the 'to' infinitive. As the 'to' infinitive is not used in L2 Mandarin, but it is required in L3 English, the upper-intermediate learners might tend to use the word order of the equivalent structure in L2 Mandarin by omitting the 'to' infinitive and the perception errors might occur sequentially. In the negative Yes-no question 'Aux.v+Neg.pt+S+V+O' structure, the major perception errors were that the learners judged the erroneous sentences of the L2 Mandarin negative interrogative structure word order as correct sentences. For example, erroneous sentences, i.e. *'She did not prepare for the exam?' and *'Michael didn't attend the football match?' were deemed as correct sentences, and these were clues of applying L2 Mandarin word order23. Besides, a few errors reflecting L1 Yi word order were found in the 'S+V+to' structure and in the 'Aux.v+Neg.pt+S+V+O' structure, but this type of errors only made up a very small proportion in the upper-intermediate learners' perception task.

Based on the typical errors reflecting L2 Mandarin word order revealed in the upper-intermediate learners' perception task, it might be accounted for by the Typological Primacy Model (TPM). Rothman (Rothman, 2011, 2015) claimed that the learners transfer the grammar properties which were perceived to be typologically closer to the L3, either from L1 or L2, and the typological relationship may only be a perception. According to the TPM, the perception errors reflecting L2 Mandarin in the sentence structures discussed above might be committed due to the typological close

[23] It is worth noting that these sentences are right if a rising intonation is applied in the informal speech. However, the perception of word order in L3 English was focused in this case. Therefore, these sentences were discussed as erroneous sentences of L2 Mandarin word, regardless of intonation in the informal speech in L3 English.

relationship of L2 Mandarin and L3 English word order in these sentence structures. The occurrences of a few errors reflecting L1 Yi word order might be accounted for by Mayo's (2012) hypothesis that the process of the learners' perception is constrained by either the actual typological proximity, or the perceived typological proximity among the three language systems. That is, when the learners perceived similarities and differences between L1 Yi and L3 English, they might perceive sentences of L1 Yi word order as the correct L3 English word order. Thus, perception errors of this type occurred.

In addition, the results also showed that perception errors reflecting L1 Yi word order were few in the upper-intermediate learners' grammaticality judgement tasks. The findings might be explained by Gibson et al. (2001) claim concerning the TPM. It was observed that the typological relationship between the L1 and L3 had no bearing on L3A. This claim might explain the upper-intermediate learners' low proportion of perception errors from L1 Yi word order. They might perceive no relationship between L1 Yi word order and L3 English word order, so perception errors of such type were not observed.

On the contrary, the results of the perception errors found in the Wh-word as the object were different from the results of the previous sentences. That is, a few examples of taking the erroneous sentences from other structures as correct were examined in this sentence structure such as *'Which she wanted book?' follows the word order of 'Int+S+V+O', *'*What liked to him?' followed the word order of 'Int+V+to+O', and *'What liked he?' followed the word order of 'Int+V+S'. These erroneous sentences did not show the word order of L1 Yi, L2 Mandarin and L3 English, but the upper-intermediate learners deemed them as correct sentences in the perception task. Even though this type of errors was not prevalent, it might be a clue of difficulties that they encountered in the process of judging the grammaticality of L3 English word order in terms of the interrogative structures.

Concerning errors reflecting other structures in the upper-intermediate learners' perception task, it might be explained with the previous research regarding interlanguage. Brown (2012) claims that second language learners use a system that has a structurally intermediate status between the mother language and the target

language being learnt and interlanguage occurs accordingly. Tarone (2010) also views interlanguage as a separate linguistic system that is totally different from the learner's mother language and the target language being learnt, but the learner may use his/her perception to link both the mother language and the target language by the interlingual identification. Consistent with these claims, these errors perceived by the upper-intermediate learners did not reveal clues of the word order from L1 Yi, L2 Mandarin and L3 English. These perception errors might occur because the learners may use a kind of strategy of learning to facilitate the target language learning (Tarone, 2010). In the psychological process of using this learning strategy, the learner may consciously attempt to compare what is produced in interlanguage, in the mother language and the perceived target language, and to set up interlingual identifications as well.

Except for the perception errors discussed above, intralingual errors of L3 English were found in the upper-intermediate learners' perception task. The most frequently produced error type was omission of the 'do' support and the past tense. Sentences without the 'do' support and past tense were produced such as *'What he liked?', *'Which book she wanted?', *'Which book she want?', and *'What he like?'. This is a common problem also revealed in the upper-intermediate learners' production task. In relation to error analysis, intralingual errors may be committed due to incomplete application of the rules (Richards et al. (1986). The upper-intermediate learners might not fully master the rule of the 'do' support needed, and the past tense of the verb should be changed in the perception process of L3 English word order, so they might not apply the rule completely. However, according to Richards (Richards, 1980), this type of intralingual error corresponds to what is often referred to as an error of transitional competence. The intralingual errors perceived in the upper-intermediate learners' perception task might decrease when their proficiency reaches a certain level, and they could overcome errors of transitional competence thereby.

To sum up to at this point, the upper-intermediate learners showed good perception in the acquisition of L3 English word order in terms of affirmative and interrogative structures. The major perception errors reflected L2 Mandarin word

order, and these might be caused due to the typological proximity between L2 Mandarin and L3 English for some sentence structures. Some errors reflected other sentence structures, and these might be committed because of the learning strategy of interlingual identifications which was applied by the upper-intermediate learners in the psychological process in interlanguage. Besides, some intralingual errors of L3 English also occurred. The findings indicated that the upper-intermediate learners were, to some extent, successful in the acquisition of L3 English word order in terms of perception.

5.3 Comparison and contrast of the perception errors of L3 English word order between the beginner and upper-intermediate learner groups

This part compares and discusses the similarities and differences of the perception errors observed by the beginner and upper-intermediate learners in the perception task regarding L3 English word order of affirmative and interrogative structures. The findings were discussed in parallel with the previous research in the areas of L3A regarding the 'L2 status factor' theory and the role of L1 and L2 in L3A.

Table 55: Comparison and contrast of error rates between two groups of learners in the perception task

Error rates / Learners	Affirmative structure: L1≠L2&L3		Affirmative structure: L1≠L2≠L3			Interrogative structure: L1≠L2≠L3		
	L1	Others	L2	L1	Others	L2	L1	Others
Beginners	8.1%	1.1%	7.8%	9.6%	0%	5.4%	11.1%	0%
Upper-intermediates	0.3%	0.3%	8.9%	1.1%	0.3%	6.5%	0.74%	1.5%
Total	4.2%	0.7%	8.35%	5.35%	0.15%	5.95%	5.92%	0.75%

Note: 'L1' means errors reflecting L1 Yi word order; 'L2' means errors reflecting L2 Mandarin word order; 'Others' means errors reflecting other structures.

As shown in Table 55, both the beginner and upper-intermediate learners exhibited perception errors mainly from L1 Yi and L2 Mandarin word order rather than other structures in terms of L3 English affirmative and interrogative structures in the two cases: L1≠L2&L3 and L1≠L2≠L3. However, the perception error rates

examined in the beginner learners' data were higher than those of the upper-intermediate learners. When the perception errors were compared between the two groups, the beginner learners showed relatively more errors from L1 Yi word order, whereas the upper-intermediate learners exhibited more errors from L2 Mandarin word order. Besides, the perception errors reflecting other structures were few for both the beginner and the upper-intermediate learners.

The perception error rates produced by the beginner learners were mainly from both L1 Yi and L2 Mandarin word order, but the upper-intermediate learners' errors were mainly from L2 Mandarin word order, and the most prominent error rates between the two groups were compared and presented. That is, the error rates that the beginner learners perceived from L1 Yi word order were 8.1% for the affirmative structures: L1≠L2&L3, 9.6% from L1 Yi word order and 7.8% from L2 Mandarin word order in the affirmative structures: L1≠L2&L3, and 11.1% from L1 Yi word order and 5.4% from L2 Mandarin word order in the interrogative structures: L1≠L2≠L3, respectively. On the contrary, the error rates produced by the upper-intermediate learners from L2 Mandarin word order were 8.9% in the affirmative structures: L1≠L2&L3 and 6.5% in the interrogative structures: L1≠L2≠L3.

It is worth noting that, in the perception errors, the three upper-intermediate learners whose L2 Mandarin proficiency scores were relatively higher than the maximum range of the HSK Level 5, i.e. 262 revealed more interlingual errors from L2 Mandarin word order than the other twenty-seven upper-intermediate learners of lower L2 Mandarin proficiency level (See 3.3.1.2 on the three learners' scores of the HSK Level 5).

The results indicated that there were similarities between the two groups of learners concerning the acquisition of L3 English word order in the perception task. The two learner groups were jointly influenced by the previously acquired L2 Mandarin word order in the perception process. The findings might be accounted for by the previous research in relation to the 'L2 status factor'. In accordance with Hammarberg (2001) claim, the learners rely more on an orientation towards a prior L2 as the strategy to approach the L3. Bardel and Falk (2007) also proposed that L2 acts as a filter in L3A, and blocked transfer by the learner from L1, particularly in the

syntactic level. The findings for the two groups of learners' high proportion of error rates from L2 Mandarin word order were consistent with these claims. The findings also confirmed Bardel and Falk (2007) conclusion that the 'L2 status factor' played a more important role than the typological distance.

In contrast, the results also showed that differences were revealed between the beginner and upper-intermediate learners in the perception task. That is, except for the cross-linguistic influence from L2 Mandarin word order, evidence of the influence from L1 Yi word order was examined in the beginner learners' perception, and the error rates produced from this type were higher than those from L2 Mandarin word order by the beginner learners. The findings from the beginner learners' perception regarding the acquisition of L3 English word order were in line with the claim that L1 and L2 transfer alone cannot explain the syntactic behaviour, and that both the L1 and L2 grammatical properties are transferred (Flynn et al., 2004; Jakobson, 1968; Leung, 2007; Leung, 2005, 2006). Accordingly, the findings demonstrated that the beginner learners were influenced by both L1 Yi and L2 Mandarin word order in the perception task. The findings were also in agreement with Ellis (1985) claim that L1 is a resource of knowledge that learners may use to facilitate input and improve their performance with regard to L3 acquisition.

To sum up, the similarities and differences were revealed with respect to the perception errors produced by the beginner and upper-intermediate learners in the affirmative and interrogative structures. Overall, the two groups of learners showed a good perception in the acquisition of L3 English word order even though some errors reflecting L1 Yi and L2 Mandarin word order occurred during the perception process. Obviously, the cross-linguistic influences from previously acquired languages were evident in the perception task, and both L1 Yi and L2 Mandarin played a role in the acquisition of L3 English word order. However, the cross-linguistic influence from L1 Yi word order was more privileged for the beginner learners, while the 'L2 status factor' of L2 Mandarin word order was a greater advantage for the upper-intermediate learners.

5.4 Conclusion

This chapter presented the beginner and upper-intermediate learners' results for the perception errors in the acquisition of L3 English word order in terms of affirmative and interrogative structures. The research questions regarding the learners' perception errors in the acquisition of L3 English word order were answered. The hypotheses for that were supported. Both the beginner and upper-intermediate learners demonstrated errors in the perception of L3 English word order with respect to affirmative and interrogative structures, and the similarities and differences regarding perception errors of L3 English word order existed between the beginner and upper-intermediate learners; positive and negative transfer from L1 Yi and L2 Mandarin word order to L3 English were evidenced; the beginner learners were found to show cross-linguistic influences from both L1 Yi and L2 Mandarin word order, with more interlingual errors from L1 Yi word order than L2 Mandarin word order revealed, whereas the upper-intermediate learners were found to exhibit more interlingual errors from L2 Mandarin word order and fewer interlingual errors from L1 Yi word order.

Overall, the results indicated that both the beginner learners and the upper-intermediate learners committed perception errors in the acquisition of L3 English word order in the perception task. However, a lower proportion of error rates was found compared with the results from the production task as presented in Chapter 4. Based on the findings, it is assumed that both the beginner and upper-intermediate learners had a good perception in the acquisition of L3 English word order, even though some perception errors were examined. The error rates from the affirmative structures and the interrogative structures in the two cases: L1≠L2&L3 and L1≠L2≠L3 were similar between the two groups of learners. The results demonstrated that the beginner learners tended to show more cross-linguistic influences from L1 Yi and L2 Mandarin word order, while the upper-intermediate learners were influenced more by L2 Mandarin word order and influenced less by L1 Yi word order. Intralingual errors of the target L3 English were not evident in the two groups of learners. Therefore, both L1 Yi and L2 Mandarin were important in the acquisition of

L3 English word order regarding perception in terms of affirmative and interrogative structures.

CHAPTER VI
CONCLUSION

This chapter concludes the study. It is divided into 3 sections. Section 6.1 gives the conclusion of the study. Section 6.2 provides the implications of the study: 6.2.1 focuses on the theoretical implications regarding third language acquisition and 6.2.2 highlights the pedagogical implications. Section 6.3 discusses limitations and provides recommendations for future research.

6.1 Conclusion

This study was aimed at exploring the acquisition of L3 English word order through investigating L1 Yi and L2 Mandarin learners' production and perception errors in terms of affirmative and interrogative structures, and examining if L1 Yi or L2 Mandarin is more influential in the acquisition of L3 English word order. In order to accomplish the objectives, participants who spoke the Yi language as their mother language and Mandarin as L2 were selected. They were divided into beginner and upper-intermediate level groups by means of an English proficiency test (the Oxford Quick Placement Test (QPT) Paper and Pen (P&P) version) and a Mandarin proficiency test (the Hanyu Shuiping Kaoshi (HSK) Level 5). The data were collected through the data elicitation production tasks that included a written task (multiple choice task) and an oral task, a perception task (grammaticality judgement tasks), and a questionnaire. The results were discussed based on the relevant theories regarding third language acquisition, i.e. the Cumulative Enhancement Model (CEM), the Typological Primacy Model (TPM), Cross-linguistic Influence, Error Analysis, i.e. interlingual errors and intralingual errors, and Interlanguage. The hypotheses were confirmed accordingly.

The three hypotheses posited based on the objectives were supported by the findings.

In relation to Hypothesis 1, both the beginner and upper-intermediate learners committed the production and perception errors of L3 English word order with respect

to affirmative and interrogative structures. Some similarities and differences regarding the production and perception errors existed between the beginner and upper-intermediate learners. The major similarities were that the two learner groups demonstrated cross-linguistic influences from L1 Yi and L2 Mandarin word order, and committed interlingual and intralingual errors, and both groups revealed more errors in the production task than in the perception task, and committed fewer errors in the affirmative structures than in the interrogative structures; the most prominent difference was that the beginner learners were influenced more by L1 Yi word order and produced more interlingual errors from L1 Yi, and the upper-intermediate learners were influenced more by L2 Mandarin word order and produced more interlingual errors from L2 Mandarin and intralingual errors. Therefore, the more complicated structures such as the passive voice and interrogative structures should be highlighted.

In relation to Hypothesis 2, the positive and negative transfer from L1 Yi and L2 Mandarin to L3 English was evidenced in the production and perception of L3 English word order in affirmative and interrogative structures. The more positive transfer was examined in Case 1: L1≠L2&L3, where the word order of the sentence structures is the same as L2 Mandarin and L3 English, but different from L1 Yi. The results indicated that fewer errors were examined in the affirmative structures for Case 1 in the production and perception tasks. Greater negative transfer was found to be produced in the affirmative and interrogative structures in Case 2: L1≠L2≠L3, where the word order of the sentence structures is totally different among the three languages. The results demonstrated that more interlingual and intralingual errors were examined in Case 2.

In relation to Hypothesis 3, the two learner groups were influenced negatively by L1 Yi and L2 Mandarin in the production and perception of L3 English word order in terms of the affirmative and interrogative structures. The findings supported the hypothesis that learners with a higher L3 proficiency level will produce more L2 interlingual errors and L3 intralingual errors, whereas, learners with a lower L3 proficiency level will produce more L1 interlingual errors. Accordingly, the results demonstrated that more interlingual errors from L1 Yi word order, and fewer

interlingual errors from L2 Mandarin and intralingual errors of L3 English were examined for the beginner learners, while more interlingual errors from L2 Mandarin word order and intralingual errors, and fewer intralingual errors from L1 Yi word order were found for the upper-intermediate learners.

Based on the data reported and discussed, the findings could be concluded in 6 perspectives as follows:

Firstly, in terms of the proficiency level, the beginner learners produced more errors than the upper-intermediate learners in both the production and perception tasks. The beginner learners tended to produce more interlingual errors and fewer intralingual errors, whereas the upper-intermediate learners leaned towards more intralingual errors and less interlingual errors. The findings support Kellerman (1983)'s claim that intermediate and advanced learners produced more intralingual errors, and beginner and elementary level learners showed a greater prevalence for interlingual errors in the acquisition of the second and additional languages. The findings indicated that the cross-linguistic influences from L1 Yi word order were more obvious than from L2 Mandarin word order and other structures for the beginner learners. In particular, the beginner learners produced high proportions of error rates from L1 Yi word order in the written and oral production of the passive voice sentences, the affirmative Yes-no questions, and the negative Yes-no questions. By contrast, the upper-intermediate learners produced high proportions of intralingual errors, particularly in the oral production of passive voice sentences, negative Yes-no questions, and Wh-questions. However, the two learner groups revealed evidence of a greater negative influence from L2 Mandarin word order for the 'S+V+to' structure in both the production and perception tasks. The upper-intermediate learners appeared to be more successful in the acquisition of L3 English word order. Thus, these findings were accounted for in parallel with the previous studies regarding the cross-linguistic influence and error analysis.

Secondly, in terms of production and perception, more errors were produced in the production task than in the perception task by both the beginner and upper-intermediate learners. High proportions of both the interlingual errors and intralingual errors were revealed in the production task, but a lower proportion of intralingual

errors and a relatively higher proportion of interlingual errors were examined in the perception task. However, the two learner groups appeared to have a good perception for the acquisition of the L3 English word order, but they were confronted with more difficulties in the production task. It seemed like the cross-linguistic influences took a more important role in the production of the L3 English word order.

Thirdly, in terms of the results from Case 1: L1≠L2&L3 and Case 2: L1≠L2≠L3 regarding the word order of the three languages (L1 Yi, L2 Mandarin, and L3 English), more errors were examined in the affirmative structures and interrogative structures for Case 2: L1≠L2≠L3 than in the affirmative structure Case 1: L1≠L2&L3, for both the production and perception tasks. Besides, the error rates from L1 Yi word order, L2 Mandarin word order and other structures were higher in Case 2: L1≠L2≠L3, than those for Case 1: L1≠L2&L3 by the two learner groups. To compare the errors produced by the two groups of learners for Case 2: L1≠L2≠L3 with respect to the affirmative structures and interrogative structures, more errors were found in the interrogative structures than in the affirmative structures by the both groups. Overall, the results from the beginner learners indicated that cross-linguistic influences from L1 Yi word order were more evident than from L2 Mandarin word order and other structures, whereas the results from the upper-intermediate learners showed that interlingual errors from L2 Mandarin word order and intralingual errors of L3 English were more observable. Therefore, it is assumed that the learners may produce fewer erroneous sentences when the word order of a certain sentence structure in the target language was the same as L2 Mandarin. On the contrary, higher error rates were produced if the word order of L1 Yi, L2 Mandarin and L3 English was totally different. Therefore, the Typological Primacy Model (TPM) is probably important in the acquisition of L3.

Fourthly, in terms of the production types (written task and oral task), the beginner learners produced more errors than the upper-intermediate learners in both the oral and written production tasks, whereas the upper-intermediate learners produced extremely fewer errors, especially in the oral production task. Particularly in the beginner learners' results for both the written and oral production tasks, the range of the error rates from the highest to the lowest was from L1 Yi word order which

ranked first, from L2 Mandarin word order which ranked second, and from other structures which ranked third. The findings confirmed Krashen (1981)'s view that the learners use L1 as a source language to initiate utterances when they lacked skill in the target language. On the contrary, the upper-intermediate learners exhibited more intralingual errors in the oral task than in the written task. The findings supported Bardel and Falk's views on the 'L2 status factor' in L3A that syntactic structures were more easily conveyed from L2 than from L1 in L3A (Bardel & Falk, 2007). Thereby, the production types probably influenced the acquisition process of L3 English word order. Thus, the cross-linguistic influence and the 'L2 status factor' theory in L3A seemed to be important in the acquisition of L3 English.

Fifthly, in terms of interlingual errors and intralingual errors, more errors were observed in the written and oral production tasks than in the perception task for both the beginner and upper-intermediate learners. In the production task, the beginners tended to produce more interlingual errors from both L1 Yi and L2 Mandarin word order, and the number of errors from L1 Yi word order was greater than those from L2 Mandarin word order. Comparatively, the upper-intermediate learners seemed to produce more interlingual errors from L2 Mandarin word order and intralingual errors in the target L3 English. Cross-linguistic influences, mainly from L1 Yi word order and partially from L2 Mandarin word order, were more evident in the beginner learners' findings, but the upper-intermediate learners seemed to be influenced more by the 'L2 status factor' and the target L3 English since more interlingual errors of L2 Mandarin word order and intralingual errors of L3 English were evident.

Lastly, in terms of the sentence types, affirmative and interrogative structures were purposively selected for this study. The two learner groups produced lower error rates of L3 English in the affirmative structures than in the interrogative structures, and especially, the error rates from the affirmative structures for Case 1: L1≠L2&L3 reached the lowest among all the errors. The findings were in agreement with Angelis (2005)'s view regarding the typological similarity of L2 in relation to L3 as a reason for transfer, and it supported the possibility of transfer from an L2 source that is typologically distant from the L3. However, interlingual errors from the prior languages were more evident in the beginner learners' results, while intralingual

errors were more prominent in the upper-intermediate learners' results. Besides, the two learner groups revealed a lower average proportion of errors, i.e. below 2% from other structures, which were irrelevant to L1 Yi, L2 Mandarin and L3 English in both the production and perception tasks. The learners may develop a system, i.e. an interlanguage which has a structurally intermediate status between the native and target languages Brown (2012). It could be assumed that the L1 Yi and L2 Mandarin learners were confronted with more difficulties in producing the interrogative structures rather than the affirmative structures, because the strong negative influences from L1 Yi and L2 Mandarin word order were implicated in both the production and perception of L3 English interrogative structures. Therefore, the Typological Primacy Model (TPM) and Interlanguage appeared to be reasonable explanations for the occurrence of such errors.

6.2 Implications of the study

Implications are provided with respect to the theoretical and pedagogical contributions in terms of L3A.

6.2.1 Theoretical implications

Two perspectives concerning L3A have been proposed.

The former perspective is that L3A was another case of L2A. There is no difference in the acquisition of L2 or L3/Ln, and that all languages acquired after the mother language are deemed as L2A (Myles et al., 1998; Singh & Carroll, 1979). Obviously, these studies favored the view that L3A was based on the L2A, and the L2A theories and approaches were feasible to research on L3A since L3A was deemed as another case of L2A.

The latter perspective is that some previous research supported that L3A was not a case of L2A since transfer in L3A was not simply from L1 alone, but also from L2 in different linguistic contexts (Leung, 2001, 2002, 2005). In particular, the syntactic structures were more easily transferred from L2 than from L1 at the initial state of L3A (Bardel and Falk (2007). De Angelis (2007) further claimed that the areas of how third/Ln may be influenced by the previously acquired languages including L1

and L2, and the perspective of the potential knowledge related to language acquisition of L3/Ln by multilingual individuals was not taken as an extension of L2A, but as a separate case. These studies attempted to explore phenomenon of L3A from a new perspective.

The present study is for the latter perspective. The results in the present study confirmed this notion. More clues regarding L2 Mandarin interference, rather than L1 Yi interference alone in relation to acquisition of L3 English word order in affirmative and interrogative structures were examined, particularly in the upper-intermediate learners' high proportion of interlingual errors from L2 Mandarin word order in both the production and perception tasks. Even clues of L2 Mandarin influence were evident in the production and perception of some sentence structures by the beginner learners. For example, more clues of the negative influence from L2 Mandarin word order were found in the affirmative 'S+V+to' structure and the negative Yes-no question 'Aux.v+Neg.pt+S+V+O' structure in the beginners' findings. These clues of L2 Mandarin influence might support the claim that L3A is not a case of L2A.

Besides, the major findings in the present study showed that the upper-intermediate learners committed more intralingual errors and the beginner learners committed more interlingual errors from L1 Yi and L2 Mandarin, which confirmed Taylor (1975)'s claim that learners at an elementary level produced more interlingual errors rather than learners at an intermediate or advanced level. Therefore, the findings in the present study may confirm the statement that L3A as a separate domain from L2A and provide a vivid sample for the study of L3A. It may contribute towards a better understanding of the difficulties faced by native speakers of other languages, when they learn a third language.

6.2.2 Pedagogical implications

The findings of the present study suggest the following pedagogical implications:

Firstly, with respect to production and perception, more errors were revealed in the production task than in the perception task, and more errors were produced in the written task than in the oral task. Therefore, the appropriate tasks concerning the

written production such as sentence translation, sentence making, and essay writing were recommended to be assigned in teaching.

Secondly, the results showed that more errors were observed in the interrogative structures than in the affirmative structures. The teachers are suggested to focus more on teaching grammars regarding the interrogative structures than the affirmative structures. The findings revealed more errors in certain sentence structures such as in the 'S+V+to' structure and in the passive voice sentences, so teaching materials focusing on these frequently produced error types are recommended for teachers. If these types of errors are explained at the early stage, the L3 learners could cope with it and may not apply the grammar rules of their mother language or L2 in third language acquisition.

Thirdly, with respect to learners at different proficiency levels, the findings showed that more interlingual errors were committed in the target L3 English learning by the learners at a lower proficiency level, whereas more intralingual errors were produced by the learners at the intermediate or advanced proficiency level. Therefore, teachers are recommended to observe how learners of different proficiency levels are different in acquiring the target language. The suitable teaching materials should be prepared in accordance with the learners' target language proficiency level.

Fourthly, with respect to the case that the word order among the three languages is typologically close or distant, the findings showed that the area of typologically close features was much easier to be learnt, whereas the area of typologically distant was more difficult to be learnt in the process of acquiring the third language. Therefore, these types of grammatical areas are suggested to be categorised and collected in order to create helpful teaching materials and facilitate third language learning. In particular, a special recommendation is given to English teachers who teach English as the L3. They are suggested to explore the word order differences of the basic sentence structures among the three languages, since knowing these differences will be helpful in preparing relevant tasks for L3 learners.

Lastly, the special recommendations contribute to English teachers serving in the remote ethnic minority regions in China. As the present study focuses especially on

the study of third language acquisition of word order by L3 English learners of L1 Yi and L2 Mandarin, the teachers are suggested to use this study as a sample, but it is not simply limited to the focused areas of the present study. This study aims to guide English teachers in the ethnic minority regions to discover the students' major problems and thus it can help adjust the teaching methods in terms of third language acquisition.

Overall, various errors regarding third language acquisition might be produced by the L3 learners in a broader context, so the teachers are suggested to be aware of these problems and attempt to prepare facilitative materials for teaching and learning, which will benefit the students in L3A and provide pedagogical implications for third language acquisition.

6.3 Limitations and recommendations for future research

Although the present study attempted to provide a clear picture of the third language acquisition phenomenon in terms of L1 Yi and L2 Mandarin learners' production and perception errors in L3 English word order, there were some limitations as follows.

Firstly, the scope of this study focused on the production and perception errors of L3 English affirmative and interrogative structures. In the future study, if compound and complex sentences are also included, the results would show more generalisation and more findings concerning L3A might be obtained.

Secondly, the phenomenon of L3 acquisition was sampled and observed from the L1 Yi and L2 Mandarin learners, who are the major ethnic groups in China. However, the production and perception errors observed from the Yi ethnic participants may not be generalised to other languages in a broader language context. In the future study, if the phenomenon of L3A by the L1 Yi and L2 Mandarin learners is compared and contrasted with that of L3 learners of other languages, more meaningful findings will be evident of how learners of L3A in different language contexts differ from each other in terms of third language acquisition.

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APPENDICES

Appendix A: Biographical information and L2 Mandarin and L3 English proficiency scores of the beginner learners

Sample Number	Gender	Age	English learning (years)	L3 English proficiency score	L2 Mandarin proficiency score
1	male	14	7	23	220
2	female	14	7	22	195
3	female	14	7	15	220
4	male	14	7	18	206
5	female	13	7	18	218
6	female	14	7	19	218
7	female	13	7	21	212
8	female	14	7	22	210
9	male	14	7	15	195
10	female	14	7	14	175
11	female	14	7	17	198
12	female	14	7	13	218
13	female	14	7	22	211
14	male	13	7	18	213
15	male	13	7	17	213
16	female	14	7	22	220
17	male	14	7	23	218
18	male	14	7	21	210
19	female	14	7	13	195
20	female	14	7	15	175
21	female	13	7	17	198
22	female	14	7	19	218
23	male	13	7	16	220
24	male	14	7	23	216
25	female	14	7	21	192

26	male	14	7	21	201
27	female	14	7	21	205
28	female	14	7	19	152
29	female	14	7	19	164
30	female	13	7	17	155
Average		13.8	7	18.7	202

Appendix B: Biographical information and L2 Mandarin and L3 English proficiency scores of the upper-intermediate learners

Sample Number	Gender	Age	English learning (years)	L3 English proficiency score	L2 Mandarin proficiency score
1	female	18	12	40	273
2	female	19	12	36	256
3	female	20	12	35	259
4	female	19	12	40	239
5	female	19	11	39	249
6	female	19	11	40	246
7	female	19	11	40	253
8	female	19	11	38	268
9	female	19	12	40	243
10	female	19	12	39	254
11	male	18	12	38	234
12	female	18	12	36	228
13	female	18	12	35	228
14	female	18	12	34	221
15	female	19	12	33	246
16	female	20	11	33	232
17	female	18	12	33	253
18	female	19	12	33	268
19	female	20	12	31	243
20	female	19	12	31	254
21	female	19	11	32	234
22	female	19	11	33	228
23	female	19	11	32	228
24	female	19	11	31	221
25	female	19	12	39	256

26	female	19	12	39	259
27	female	18	12	40	239
28	female	18	12	40	249
29	female	18	12	38	246
30	female	18	12	34	246
Average		18.8	11.7	36	245

Appendix C: Task 1 The multiple choice task

Name: Age:

Tel: Date:

Please complete the following dialogues between Kim and Li by choosing the correct sentence.

Chinese translation of the instruction was provided for this task as follows.

姓名: 年龄:

电话: 家乡(提供市县即可):

一、单项选择题

请根据 Kim 和 Li 的对话选择正确的选项。

(1) Kim: What did he do for his mom?

Li: _____.

A. He for his mom cooked food. B. He for his mom food cooked.

C. He cooked food for his mom. D. He food cooked for his mom.

(2) Kim: Is there anything in the box?

Li: _____.

A. No, there is nothing in the box. B. No, the box in nothing there is.

C. No, in the box nothing there is. D. No, nothing there is in the box.

(3) Kim: What did he buy in the bookstore?

Li: _____.

A. A pen he bought. B. Bought a pen he.

C. He a pen bought. D. He bought a pen.

(4) Kim: What do you think of this computer?

Li: _____.

A. It very easy is to use. B. It is very to use easy.

C. It is very easy to use. D. To use very easy is it.

(5) Kim: What did she do at the last weekend?

Li: _____.

A: She read a book. B. She a book read.

C: A book she read. D. Read a book she.

(6) Kim: What did the doctor advise him to eat?

Li: _____.

A. The doctor advised him take the medicine.

B. The doctor advised him the medicine to take.

C. The doctor him the medicine to take advised.

D. The doctor advised him to take the medicine.

(7) Kim: _____?

Li: There are five eggs in the bag.

A. In the bag there are how many eggs?

B. How many eggs are there in the bag?

C. In the bag eggs how many there are?

D. In the bag eggs how many are there?

(8) Kim: Where did her friend invite her to go?

Li: _____.

A. Her friend her invited to the concert go.

B. Her friend invited her go to the concert.

C. Her friend invited her to go to the concert.

D. Her friend her the concert go to invited.

(9) Kim: Where is your house?

Li: _____.

A. It is near the school. B. It is the school near.

C. It the school near is. D. Near the school it is.

(10) Kim: What did Tom's mom ask him to do?

Li: _____.

A. She asked him to buy some food. B. She him food some to buy ask.

C. She asked him buy some food. D. She him asked buy some food.

(11) Kim: What did Rosa tell him?

Li: _____.

A. Rosa him a secret told. B. Rosa told him a secret.

C. Rosa a secret him told. D. Rosa him told a secret.

(12) Kim: Where are you going for holiday this year?

Li: _____.

A. We the seaside are going to.

B. We are going to the seaside.

C. We the seaside are going to.

D. The seaside we are going to.

(13) Kim: What did Jenny's brother show her just now?

Li: _____.

A. He showed her a photo. B. He showed a photo her.

C. He a photo her showed. D. He her a photo showed.

(14) Kim: What can I do mom?

Li: _____.

A. You can tidy your bedroom immediately.

B. Immediately tidy your bedroom you can.

C. Your bedroom tidy you can immediately.

D. Tidy immediately you can your bedroom.

(15) Kim: What did Lisa give him?

Li: _____.

A. Lisa him a book gave.

B. Lisa a book him give.

C. Him Lisa gave a book.

D. Lisa gave him a book.

(16) Kim: Where did Smith find the pen?

Li: _____.

A. He in the bag found it.

B. He in the bag it found.

C. He found it in the bag.

D. He it found in the bag.

(17) Kim: _____?

Li: Ok, I will talk more quietly.

A. You would more quietly talk, please?

B. Please you would more quietly talk?

C. Would you please talk more quietly?

D. You more quietly talk would?

(18) Kim: Where did he put his shoes?

Li: _____?

A. He under the table put them.

B. He under the table them put.

C. He them put under the table.

D. He put them under the table.

(19) Kim: Do you have any food left?

Li: _____.

A. No, I food don't have left.

B. No, I don't have left food.

C. No, food don't left I have.

D. No, I don't have any food left.

(20) Kim: What did Tony see under the bus?

Li: _____.

A. He saw a cat under the bus.

B. He under the bus saw a cat.

C. He under the bus a cat saw.

D. Under the bus a cat he saw.

(21) Kim: By whom was the house built?

Li: _____.

A. It was by his uncle built. B. It was built by his uncle.

C. It was his uncle by built. D. By his uncle it was built.

(22) Kim: Did you see him dancing on the stage?

Li: _____.

A. Yes, I saw him dancing on the stage.

B. Yes, I saw him on the stage dancing.

C. Yes, I him saw on the stage dancing.

D. Yes, on the stage dancing I saw him.

(23) Kim: By whom was the cake made?

Li: _____.

A. It was by her grandma made. B. It was made by her grandma.

C. It was her grandma by made. D. By her grandma it was made.

(24) Kim: When do the shops open in the morning?

Li: _____.

A. In the morning they at 9 o' clock open.

B. They in the morning at 9 o' clock open.

C. They open at 9 o' clock in the morning.

D. At 9 o' clock they in the morning open.

(25) Kim: By whom was the bedroom cleaned?

Li: _____.

A. It by her sister cleaned. B. It her sister by cleaned.

C. Her sister was by cleaned it. D. It was cleaned by her sister.

(26) Kim: What did he like to make?

Li: _____.

A. He apple juice make liked to.
B. He liked to make apple juice.
C. He liked make apple juice.
D. He apple juice liked to make.

(27) Kim: Will it rain tomorrow?

Li: _____.

A. Yes, tomorrow rain it will.
B. Yes, it will rain tomorrow.
C. Yes, tomorrow it rain will
D. Yes, it rain will tomorrow.

(28) Kim: Where did he want to visit?

Li: _____.

A. He wanted to visit Shanghai.
B. Shanghai visit he wanted.
C. He Shanghai visit wanted to.
D. He wanted visit Shanghai.

(29) Kim: _____?

Li: It is 8 o' clock now.

A. Can you tell me what time it is, please?
B. You can tell me what time is it, please?
C. You what time is it me tell, please?
D. You can tell me what time it is, please?

(30) Kim: What did Joshua plan to do?

Li: _____.

A. He planned watch a movie.
B. He a movie watch planned to.
C. A movie watch he planned to.
D. He planned to watch a movie.

(31) Kim: _____?

Li: Yes, he played basketball last Saturday.

A. Basketball Tony played last Saturday?
B. Tony last Saturday basketball played?
C. Did Tony play basketball last Saturday?
D. Tony played basketball last Saturday?

(32) Kim: Do you enjoy playing chess?

Li: _____.

A. Yes, we all playing chess enjoy.
B. Yes, we all enjoy playing chess.
C. Yes, playing chess all we enjoy.
D. Yes, enjoy chess we all playing.

(33) Kim: _____?

Li: No, he didn't attend the concert.

A. He the concert attended?
B. Did he attend the concert?
C. He attended the concert?
D. The concert he attended?

(34) Kim: _____?

Li: Yes, Tom lived in Beijing.

A. Tom didn't live in Beijing?
B. Didn't Tom live in Beijing?
C. Tom in Beijing didn't live?
D. Didn't in Beijing Tom live?

(35) Kim: _____?

Li: No, he didn't finish the work.

A. Did he finish the work?
B. He finished the work?
C. He the work finished?
D. The work he finished?

(36) Kim: _____?

Li: She made a paper airplane for him.

A. What did Tom's sister make for him?
B. Tom's sister made what for him?
C. Tom's sister for him what made?
D. What for him Tom's sister made?

(37) Kim: _____?

Li: No, she didn't return the book.

A. She the book didn't return?
B. The book she didn't return?
C. She didn't return the book?
D. Didn't she return the book?

(38) Kim: _____?

Li: He repaired the shoes.

A. Mr Harrison what repaired? B. Mr Harrison repaired what?

C. What did Mr Harrison repair? D. What repaired Mr Harrison?

(39) Kim: _____?

Li: No, he didn't play football.

A. Didn't he play football? B. He didn't play football?

C. He football didn't play? D. Football play he didn't?

(40) Kim: _____?

Li: She liked the blue pen.

A. She liked which? B. She which liked?

C. Which pen did she like? D. Which liked she?

Appendix D: Task 2 The oral production task

Name: Age:

Tel: Date:

Instructions: Please ask and answer the questions orally by following the instructions. There are two parts in the task.

Part One: Read the questions and answer them orally with complete sentences. Only answers with complete sentences are acceptable.

Examples:

(1) A: Are you from China?

B: Yes. (×)

B: Yes. I am from China. (√)

(2) A: How do you go to school?

B: By bus. (×)

B: I go to school by bus. (√)

Chinese translation of the instruction was provided for this task as follows.

三、口语练习

根据提示口头回答问题或提出问题。此题包含两部分。

第一部分：默读下面的问题，并用完整的句子口头回答。您的回答将被录音。

举例如下：

(1) A: Are you from China?

B: Yes. (×)

B: Yes. I am from China. (√)

(2) A: How do you go to school?

B: By bus. (×)

B: I go to school by bus. (√)

(1) A: Did Lily give him the book?

B: _____.

(2) A: Where is the police station?

B:_____.

(3) A: Did he do the homework?

B: _____.

(4) A: Where do you live?

B: _____.

(5) A: What did he buy in the shopping mall?

B: _____.

(6) A: What did his mother advise him to do during the holiday?

B: _____.

(7) A: Where did he go after he finished his homework?

B: _____.

(8) A: What did the teacher ask her to do?

B: _____.

(9) A: Did Peter play with his new friend?

B: _____.

(10) A: What did his friend told him to make?

B:_____.

(11) A: What did Peter send him as a Christmas gift?

B: _____.

(12) A: Were you happy at the party?

B: _____.

(13) A: What did her grandma buy her for her birthday?

B: _____.

(14) A: Who cut down the tree?

B: _____.

(15) A: What did his parents give him for his birthday?

B: _____.

(16) A: Where did he play the ball?

B: _____.

(17) A: Was the boy afraid when he saw the tiger?

B: _____.

(18) A: Where did she put the key?

B: _____.

(19) A: When is your birthday?

B: _____.

(20) A: Where did she meet her friend?

B: _____.

(21) A: What did he like to do during the weekend?

B: _____.

(22) A: By whom was the cake made?

B: _____.

(23) A: Where did you stay when it rained heavily?

B: _____.

(24) A: What did Susan hope to receive for her birthday gift?

B: _____.

(25) A: By whom was the classroom cleaned?

B: _____.

(26) A: Are you satisfied with your exam?

B: _____.

(27) A: By whom was the picture drawn?

B: _____.

(28) A: What did Smith want to buy in the bookstore?

B: _____.

Part two: Please ask a question orally to answer the underlined words in the sentence.

Examples:

(1) A: What did he do at 9 pm? (×)

A: When did he do his homework? (√)

B: He did his homework **<u>at 9 pm</u>**.

(2) A: Can he go to school on time? (×)

A: Can't he go to school on time? (√)

B: He **can't** go to school on time.

Chinese translation of the instruction was provided for this task as follows.

第二部分：默读下面的句子，并根据划线部分的词口头提问。您的回答将被录音。

举例如下：

(1) A: What did he do at 9 pm? (×)

A: When did he do his homework? (√)

B: He did his homework **at 9 pm**.

(2) A: Can he go to school on time? (×)

A: Can't he go to school on time? (√)

B: He **can't** go to school on time.

(1) A: _____?

B: **Yes**, he arrived at school on time.

(2) A: _____?

B: My name is **Joy**.

(3) A: _____?

B: **Yes,** he knew the girl who was crying.

(4) A: _____?

B: No, he **did not** like to live in that house.

(5) A: _____?

B: **Yes**, he found his key.

(6) A: _____?

B: No, she **did not turn off** the light last night.

(7) A:_____?

B: I played with **my friend** in the park.

(8) A: _____?

B: She made **a toy car**.

(9) A:_____?

B: No, she **could not** use the computer.

(10) A: _____?

B: He played **football**.

(11) A: _____?

B: My book is **on the shelf**.

(12) A: _____?

B: She saw **a tiger**.

Appendix E: Task 3 Grammaticality judgement tasks

Name: Age:

Tel: Date:

Decide if the following sentences are grammatical or ungrammatical in terms of word order. If you think the sentence is correct, mark with (√), if you decide it is ungrammatical, mark with (×), and correct it accordingly.

Examples are provided below:

(1) Jason went to visit his grandparents last Sunday. (√)

(2) He in the morning early got up. (×)

He got up early in the morning. (Corrected)

Chinese translation of the instruction was provided for this task as follows.

二、判断句子对错并改正

判断下面陈述句和疑问句的句序表达是否正确。正确的句子打勾（√），不正确的句子打叉（×），并改正在横线上。

举例如下：

(1) Jason went to visit his grandparents last Sunday. (√)

(2) He in the morning early got up. (×)

He got up early in the morning.（已改正）

(1) He washed his school uniform. ( )_____.

(2) I wish I could buy a toy car. ( ) _____.

(3) His mom the room cleaned. ( )_____.

(4) She me told she all the sports likes. ( ) _____.

(5) He the key left. ( )_____.

(6) The doctor told him to take the medicine twice a day. ( ) _____.

(7) The sun rises in the east. ( ) _____.

(8) Susan him invited a dinner to have. ( )_____.

(9) He suddenly felt all alone. ( ) _____.

(10) Her mom her reminded umbrella an to bring. ( ) _____.

(11) His brother showed him a photo. ( )_____ .

(12) I was in 1990 born. ( ) _____.

(13) Her grandma her a story told. ( )_____.

(14) Is there anyone at home? ( ) _____.

(15) His friend him the book passed. ( ) _____.

(16) Michael saw a snake in the garden. ( )_____.

(17) I can hear you are saying what. ( ) _____.

(18) She in the bag found a pen. ( )_____.

(19) Everyone kept quiet when the teacher came in. ( ) _____.

(20) He the park in a walk took. ( )_____.

(21) Henry was him by beaten. ( )_____.

(22) Which way is more helpful to you? ( ) _____.

(23) The tree was cut down by the farmer. ( )_____.

(24) I saw Mr. Smith on the bus get on. ( ) _____.

(25) The cake by his grandma was made. ( )_____.

(26) Mary home return wanted. ( )_____.

(27) The woman with a baby in her arm is my sister. ( ) _____.

(28) He planned play football. ( )_____.

(29) Your name is what? ( ) _____.

(30) He hoped to go to the moon. ( )_____.

(31) He attended English contest? ( )_____?

(32) The boy smart is. ( ) _____.

(33) Did his English teacher give him homework yesterday? ( )_____?

(34) He liked what? ( )_____?

(35) Henry the bag at school left? ( )_____?

(36) She for the exam did not prepare? ( )_____?

(37) What did she want to eat for lunch? ( )_____?

(38) Michael didn’t attend the football match? ( )_____?

(39) She which book wanted? ( )_____?

(40) Didn’t Chris do his homework? ( )_____?

Appendix F-1: Questionnaire

Please answer the following questions.

Name: Age:

Nationality: Phone number:

Date: Hometown:

1. What is your first language?
   A. Mandarin B. Yi C. Other (Please indicate)
2. What is your second language?
   A. Mandarin B. Yi C. Other (Please indicate)
3. What is the proficiency level of your first language?
   A. Fluent B. Fair C. Poor
4. What is the proficiency level of your second language?
   A. Fluent B. Fair C. Poor

5. How long have you been studying English (Specify years and months)? ( )

6. Have you ever lived in English speaking countries?

   A. Yes B. No

7. (Continued from item 6) If you choose “yes”, please specify what country, for how long, and for what purpose.

8. What do you think is the proficiency level of your English?

   A. Fluent B. Fair C. Poor

9. Which language do you prefer to speak at school?

   A. Yi B. Mandarin C. Both Yi and Mandarin

10. Which language do you prefer to speak at home?

   A. Yi B. Mandarin C. Both Yi and Mandarin

11. Do you think Yi and Mandarin affect your English learning?

A. Yes B. No

12. (Continued from item 11) If you choose “yes”, please tell which language affects you more, and tell whether the effect is positive or negative.

13. When you do an English exercise or speaking English, which language helps you organize the meaning?

A. Yi B. Mandarin C. Both D. None of them

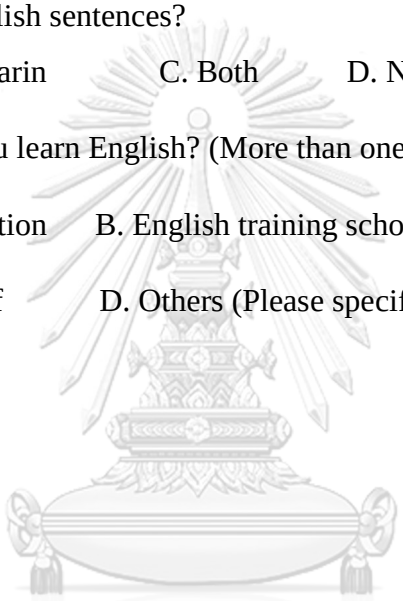
14. When you do a translation exercise from Chinese to English, which language helps you organize English sentences?

A. Yi B. Mandarin C. Both D. None of them

15. In what ways do you learn English? (More than one answer is alright)

A. Classroom instruction B. English training school

C. learning by myself D. Others (Please specify)



Appendix F-2: Chinese Version of Appendix F-1

问卷调查

姓名：　　年龄：

电话：　　家乡（提供市和县即可）：

请结合您的语言使用情况和语言学习情况完成以下调查表

1. 您的第一语言是什么语？

A.汉语　　B. 彝语　　C. 其它语言（请补充）

2. 您的第二语言是什么语？

A. 汉语　　B. 彝语　　C. 其它语言（请补充）

3. 您的第一语言的熟练程度怎么样？

A. 流利　　B. 一般　　C. 较差

4. 您的第二语言的熟练程度怎么样？

A. 流利　　B. 一般　　C. 较差

5. 你学习英语多长时间了（请说明几年几个月）？（　　）

6. 您曾经在说英语的国家生活过吗？

A. 是　　B. 没有

7. 接第 6 题。如果您曾经在说英语的国家生活过，请说明是哪个国家，住了多久，出行目的是什么？

8. 您个人认为您的英语熟练程度怎么样？

A. 流利　　B. 一般　　C. 较差

9. 您在学校更喜欢说哪门语言？

A. 彝语　　B. 汉语　　C. 彝语和汉语

10. 您在家里更喜欢说哪门语言？

A. 彝语　　B. 汉语　　C. 彝语和汉语

11. 您认为彝语和汉语对您的英语学习有影响吗？

A. 有　　B. 没有

12. 接第 11 题。如果您认为彝语或汉语对您的英语学习有影响，请说明主要受哪门语言影响，是帮助还是干扰您学习英语？

13. 您觉得在做英语作业或说英语的过程中受到哪门语言的影响？

A. 彝语　　B. 汉语　　C. 两门都有影响　　D. 不受影响

14. 您觉得在做汉语翻译成英语的作业时，您觉得是彝语还是汉语在帮助您组织句子结构？

A. 彝语　　B. 汉语　　C. 两者　　D. 不受影响

15. 您是通过哪些方式学习英语的？（可多选）

A. 课堂上　　B. 英语培训学校　　C. 自学　　D. 其它（请说明）

Appendix G: Items Objective Congruence Index

（少数民族学生英语三语习得中的句序研究）

Reviewer of validity test: Affiliation:

Signature: Date:

Description: This index of congruence is to validate the quality of this instrument. Please indicate your agreement according to the following scale by placing a ✓ in the box

Scoring +1 = Certain that the test is congruent with the objectives.

Scoring 0 = Uncertain that the test is congruent with the objectives.

Scoring - 1= Certain that the test is NOT congruent with the objectives.

Appendix G-1: IOC scores for the multiple choice task

Items	Expert 1	Expert 2	Expert 3	IOC Value
1	1	1	1	1
2	1	1	1	1
3	1	1	1	1
4	1	0	1	0.66
5	1	1	1	1
6	1	1	1	1
7	1	1	1	1
8	1	1	1	1
9	1	1	1	1
10	1	1	1	1
11	1	1	1	1
12	1	1	1	1
13	1	1	1	1
14	1	1	1	1
15	1	1	1	1
16	1	0	1	0.66
17	1	1	1	1
18	1	1	1	1
19	0	1	1	0.66
20	1	1	1	1
21	0	1	1	0.66
22	1	1	1	1
23	0	1	1	0.66
24	1	1	1	1
25	0	1	1	0.66
26	1	1	1	1

27	0	1	1	0.66
28	1	1	1	1
29	1	1	1	1
30	1	0	1	0.66
31	1	1	1	1
32	1	1	1	1
33	1	1	1	1
34	1	1	1	1
35	1	1	1	1
36	1	1	1	1
37	1	1	1	1
38	1	1	1	1
39	1	1	1	1
40	1	1	1	1
Average IOC	0.87	0.92	1	37.28/40=0.93
				IOC=0.93

Appendix G-2: IOC scores for the grammaticality judgement tasks

Items	Expert 1	Expert 2	Expert 3	IOC Value
1	1	1	1	1
2	1	1	1	1
3	1	1	1	1
4	1	1	1	1
5	1	1	1	1
6	1	1	1	1
7	1	1	1	1
8	1	1	1	1
9	1	1	1	1
10	1	1	1	1
11	1	1	1	1
12	1	1	1	1
13	1	1	1	1
14	1	1	1	1
15	1	1	1	1
16	1	1	1	1
17	1	1	1	1
18	1	1	1	1
19	0	1	1	0.66
20	1	1	1	1
21	0	1	1	0.66
22	1	1	1	1
23	0	1	1	0.66
24	1	1	1	1
25	1	1	1	1
26	1	1	1	1

27	1	1	1	1
28	1	1	1	1
29	1	1	1	1
30	1	1	1	1
31	1	1	1	1
32	1	1	1	1
33	1	1	1	1
34	1	1	1	1
35	1	1	1	1
36	1	1	1	1
37	1	1	1	1
38	1	1	1	1
39	1	1	1	1
40	1	1	1	1
Average IOC	0.92	1	1	38.97/40=0.97
				IOC=0.97

Appendix G-3: IOC scores for the oral task

Items	Expert 1	Expert 2	Expert 3	IOC Value
Part 1: read the questions and answer them orally with complete sentences. Only answers with complete sentences are acceptable.				
1	0	1	1	0.66
2	0	1	1	0.66
3	1	0	1	0.66
4	1	0	1	0.66
5	1	1	1	1
6	1	1	1	1
7	1	1	1	1
8	1	1	1	1
9	1	1	1	1
10	1	1	1	1
11	1	1	1	1
12	1	1	1	1
13	1	1	1	1
14	1	1	1	1
15	1	1	1	1
16	1	1	1	1
17	1	1	1	1
18	1	1	0	0.66
19	1	1	1	1
20	1	1	1	1
21	1	1	1	1
22	1	1	1	1
23	1	1	1	1
24	1	1	1	1
25	1	1	0	0.66

26	1	1	1	1
27	1	1	1	1
28	1	1	1	1
	0.92	0.92	0.92	25.96/28=0.92
Part 2: Please ask a question orally to answer the underlined words in the sentence.				
1	1	1	1	1
2	1	1	1	1
3	1	1	1	1
4	0	1	1	0.66
5	0	1	1	0.66
6	1	1	1	1
7	1	0	1	0.66
8	1	0	1	0.66
9	1	1	1	1
10	1	1	1	1
11	1	1	1	1
12	1	1	1	1
Average IOC	0.83	0.83	1	10.64/12=0.88
				IOC=0.9

Appendix G-4: IOC scores for the questionnaire

Items	Expert 1	Expert 2	Expert 3	IOC Value
1	1	1	1	1
2	1	1	1	1
3	1	1	1	1
4	1	1	1	1
5	1	1	1	1
6	1	1	1	1
7	1	1	1	1
8	1	1	1	1
9	1	1	1	1
10	1	1	1	1
11	1	1	1	1
12	1	1	1	1
13	1	1	1	1
14	1	1	1	1
15	1	1	1	1
Average IOC	1	1	1	15/15=1
				IOC=1

VITA

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