Study of English-Speaking Learners' Acquisition of Chinese Word Order

Yinyin Peng

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I hereby confirm that this study is conducted on my own and that appropriate credit has been given where reference has been made to the work of others.

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Abstract

Word order (WO) plays a key role in Chinese grammar, as Chinese is short of overt syntactic features and relies on WO to construct information. Due to its complexity and variety as well as its differences with English word order (EWO), Chinese word order (CWO) is a significant yet challenging aspect for English-speaking learners to grasp when acquiring Chinese as a second or foreign language. According to Contrastive Analysis Hypothesis (CAH) (Lado, 1957), the linguistic differences between learners' first language (L1) and second language (L2) can lead to difficulties in learners' L2 acquisition. This research first compares the differences and similarities between Chinese and English word order in terms of the five primary Chinese structures, namely the attributive-headword structure, the adverbial-headword structure, the verb-complement structure, the subject-verb structure and the verb-object structure. Then a questionnaire designed with various CWO questions is employed to collect empirical data from three levels of learners who are native English speakers studying on a Chinese programme at the University of Leeds. Through identifying and analysing participants' WO errors concerning the five primary Chinese structures, it is found that some types of WO are more problematic than others and different levels have different performance and challenges. The verb-complement structure proves to be the most difficult WO structure, followed by the attributive-headword structure and adverbial-headword structure, whereas WO of the subject-verb structure and verb-object structure is much easier for learners. The causes of learners' WO errors mainly consist of the influence of their first language, underuse of Chinese grammatical rules/patterns, overgeneralisation of grammatical rules and misunderstanding of the meaning. Based on learners' WO errors and difficulties, relevant pedagogical suggestions are proposed to facilitate the practice of teaching Chinese as a second or foreign language (TCSL/TCFL).

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Chapter 1
Introduction

The first chapter introduces the background of the research, the importance of word order in Chinese, typological differences between Chinese and English word order, key principles of Chinese and English word order, approaches to studying Chinese L2 word order and the research questions and objectives.

1.1 Research Context

Chinese word order is a complex but important aspect in the field of teaching Chinese as a second language. Despite the fact that a large amount of attention has been paid to Chinese L2 acquisition, empirical research centred on CWO cannot keep pace with the multiplication of L2 Chinese learners in the world. The differences and even the similarities between Chinese and English word order, along with the inner complexity of CWO may pose great challenges for English-speaking learners who learn Chinese as a foreign language. Set in the context of University of Leeds, this study aims to explore English-speaking students' acquisition of CWO through investigating the WO errors they may make. It should be pointed out that this study uses 'acquisition' to refer to both learners' acquiring and learning of Chinese as a foreign language. Regarding the distinctions between 'acquisition' and 'learning', Krashen (1982) points out that 'acquisition' is a subconscious process, which is similar to the way a child learns his mother tongue whereas 'learning' is a conscious process in which learners purposefully learn the rules and patterns of a new language. Nevertheless, some researchers disapprove this differentiation because it is difficult to verify whether language learners' knowledge is 'acquired' or 'learned', and in many cases learners 'acquire' and 'learn' their target language at the same time (Ellis, 1994; Jiang, 2009). Therefore, the terms 'acquire/acquisition' and 'learn/learning' are used interchangeably in this project. As for the difference between 'second language/L2' and 'foreign language', the former mainly

refers to learning a non-native language in an environment where that language is traditionally used while the latter means teaching or learning a non-native language in an environment where that language is rarely used (Freed, 1991; Gass & Selinker, 1994). On the one hand, it is significant to differentiate second language learning from foreign language learning because the learning environment and learners' language background involved in these two processes vary greatly. On the other hand, the field of Second Language Acquisition (SLA) widely covers research on non-native language learning, so it is convenient to employ L2 to refer to both second and foreign language metaphorically. Therefore, this study adopts 'SLA/L2 acquisition' to refer to both second and foreign language acquisition/learning.

Word order is defined as 'the temporal or linear sequence of words in a sentence, clause and phrase' (Jiang, 2009, p.19). According to *Dictionary of Language and Linguistics* (Hartmann and Stork, 1972, p.258), WO refers to 'the position of a word in a sequence based on particular language conventions'. It involves not only the order of sentence constituents like subject, verb and object but order in nominal phrases or verbal phrases as well (Jin, 1998). Pan (1997, p.219) holds that WO refers to the sequencing of language units at one level up. For example, it involves the sequence of morphemes in words, words in phrases, phrases in clauses, clauses in sentences, sentences in sentence clusters, etc. Moreover, Guo (2000, p.216) claims that 'word order is the order of arrangement of words in phrases and sentences. When the word order is different, the internal structure of phrases and sentences is different.' In general, WO can be defined in a narrow sense and a broad sense. Narrowly speaking, WO involves the sequence of morphemes and words whereas broadly speaking, WO refers to the arrangement of linguistic units and elements at any level, with any length, such as the sequence of morphemes, words, sentences, sentence elements, and so on (Zhao, 2009, p.64). This study investigates WO in a broad sense, especially focusing on the WO of sentence elements.

From a syntactic perspective, Greenberg (1963) outlines 45 WO universals through analysing samples of around 30 languages in his research *Universals of Language*, which provides theoretical foundation for later studies to define the canonical WO of some languages. According to Greenberg (1963), there are three dominant word orders of human languages, Subject-Verb-Object (SVO), Subject-Object-Verb (SOV) and

Verb-Subject-Object (VSO). However, Greenberg's assumptions of WO may be insufficient to coincide with every language due to the complexity of human languages. Hence, more empirical research should be launched to investigate the WO-related issues.

On the one hand, scholars in the West and China both widely agree that sentences constitute the basic unit for language research (Xing, 2006, p.133), and Chao (1968, p.41) proposes that sentences are the central language unit for grammatical analysis; on the other hand, Jiang (2009, p.2) cites Gershkoff and Goldin, emphasising that WO is crucial to information structuring of a sentence as it is a chief language device used to express 'who does what to whom.' Therefore, WO is chiefly explored at the sentence level in this study. Furthermore, as Jin (1998) points out that phrases are the most effective constituent of sentence construction, this project thus mainly focuses on WO within phrases and sentences.

1.2 Significance of Word Order in Chinese

The important role WO plays in Chinese is manifested in Chao's (1968, p.260) assertion that '[it] is often said that all Chinese grammar is syntax, all Chinese syntax is word order, and therefore all Chinese grammar is word order.' In fact, Chinese depends heavily on WO to construct information at the sentence level due to its lack of tense and aspect markers (Li and Thompson, 1981; Zhao, 2006; Jiang, 2009; Zhao, 2009). Compared with inflectional languages such as English, Chinese is short of overt syntactic changes in terms of tense, case, gender, subject-verb agreement, etc. For instance, the verb '吃' (eat) experiences no morphological changes whether its subject is in the first person or third person, in the plural form or single form, or whether it happens in the past, at present or in the future.

Besides, WO is a powerful technique to suggest the change of meaning in Chinese. Zhao (2009) points out that the sequence of morphemes and words has always been treated as a significant approach to distinguishing between semantic relation and syntactic relation and to identifying linguistic

units. Taking ‘天 明’ and ‘明 天’ as examples, the first word means ‘daybreak/dawn’ while the second indicates ‘tomorrow’. With a simple switch of the two characters’ position, the meaning of the word varies considerably. Apart from the morpheme/word level, WO also functions at the phrase and sentence level, involving the change of meaning as well.

Ex.1	读 书 好	vs	读 好 书
	du shu hao		*du hao shu*
	reading good		read good books
	reading is good		read good books

In Example 1, through altering the position of ‘书’ (book) and ‘好’ (good), the two phrases ‘读书好’ and ‘读好书’ convey two different meanings. Chinese can change the sequence of morphemes or phrases to constitute different words or sentences. The variation of WO can therefore function as a significant device to information structuring in Chinese. Kang (2015) concludes that the meaning of a sentence depends on WO, so WO plays an essential role in Chinese and it is a big challenge for L2 Chinese learners.

Hu and Wen (1982, cited in Zhao, 2009, p.64) state that the meaning conveyed by WO can be semantic, grammatical and pragmatic. This proposal highlights the essential role of WO in linguistics and promotes the development of WO research. In terms of language expression and understanding, CWO is equipped with communicative function and rhetorical function, and the variation of WO regarding this aspect is primarily semantic and pragmatic (Zhao, 2009). The communicative function of WO means that we can use WO to indicate the sequencing of events in time, space, importance, causal relationship, etc. (Zhao, 2009). For example, if a student wants to explain his absence from school, one way is to state the reason first and then the result, such as ‘我生病了，所以没去上学’ (I didn’t feel well, so I didn’t go to school). Yet, if the sequence is converted to ‘我没去上学，因为我 病 了’ (I didn’t go to school because I was ill), this variation of WO manifests that the speaker wants to highlight the result as the communication emphasis. The rhetorical function of WO is widely involved in set phrases, literary language, advertisements and so on (Zhao, 2009). For instance, ‘屡战屡败’ (have repeatedly fought and lost) and ‘屡败屡战’ (fight

on despite repeated defeats). The first idiom describes the suffering from defeats whereas the second depicts the practice of fighting after defeat. The varying sequence of words can bring vivid rhetorical effects.

In brief, the significance of WO in Chinese can be explicated by Xu's (2018, p.89) claim that the internal connection of words is word order, the sequencing of sentence elements is word order, the internal and external connection of a sentence is word order, the syntax is word order, and the approach to applying semantics and pragmatics to syntax is still word order. Therefore, WO is key to grasping the basic features of Chinese grammar.

1.3 Typological Differences between Chinese and English Word Order

Firbas (1966) puts forward the communicative degree concept to identify the role of communication in arranging the order of sentence elements, emphasising that the WO system of a language can be understood better when compared with that of another language. Lü (1999) also argues that identifying the salient differences between English and Chinese is of great significance when comparing WO of these two languages. Jiang (2009, p.25) proposes that although both Chinese and English feature SVO word order on the basis of 'statistical predominance and unmarked surface level word order', differences arise between Chinese and English regarding key factors behind the superficial SVO order, including prominence, constraint and principal branching direction, etc. This section compares the principal typological differences between Chinese and English word order in terms of prominence, principal branching direction and constraint.

Despite the fact that both Chinese and English possess the concepts of topic and subject, Chinese is said to be a topic-prominent language while English a subject-prominent language (Li and Thompson, 1976).

Ex.2 A: 书 看 了 没？ B: 看 了。

shu kan le mei	kan le
book read le mei	read le
Have you read the book?	Yes, I have.

This conversation reveals that subject is essential for a sentence to be grammatically correct in English while Chinese can omit the subject and adopt the topic-comment pattern.

In addition to the ordering of major sentence constituents like subject, verb and object, the positioning of modifiers like adjectives, adverbs and clauses also varies between Chinese and English. This difference is reflected by the concept of 'Principal Branching Direction' (Lust and Chien, 1984). Chinese is regarded as a left-branching language as modifiers and relative clauses are generally placed to the left of the headword whereas English is principally right-branching since modifiers and relative clauses are placed to the right of the headword.

Ex.3 那 个 穿 红 外 套 的 男 孩 来 自 美 国。

na ge chuan hong wai tao de nan hai lai zi mei guo

that wear red coat de boy comes from America

That boy who wears a red coat comes from America.

According to Li and Thompson (1981), the order of Chinese sentences' constituents is mainly constrained by the semantic and pragmatic factors while English is regulated by grammatical and syntactic constraints. Therefore, Chinese features the pragmatic word order whereas English manifests the grammatical word order.

Considering the typological differences concerning prominence, principal branching direction and constraint between Chinese and English word order, it is not surprising that English-speaking students may encounter various difficulties and challenges when learning CWO.

1.4 Major Principles of Chinese and English Word Order

In 1985, Tai articulated that there were three major principles regulating CWO, namely the Principle of Temporal Sequence, the Principle of Temporal Scope and the Principle of Whole-Before-Part. The Principle of Temporal Sequence means that 'the relative word order between syntactic units is determined by the temporal order of the states that they represent in the conceptual world' (Tai, 1985, p.50). This principle is of great value in explaining WO of many Chinese sentences (Tai, 1985). The Principle of Temporal Scope manifests that 'if the conceptual state represented by a syntactic unit X falls within the temporal scope of the conceptual state represented by a syntactic unit Y, the word order is YX' (Tai, 1985, p.60). Simply put, a constituent with larger temporal scope precedes one with smaller temporal scope (Jiang, 2009). The Principle of Whole-Before-Part suggests a constituent with a larger scope should precede one with a smaller scope (Tai, 1985; Jiang, 2009). Nevertheless, the Principle of Temporal Scope was later found to be a sub-principle of the Principle of Whole-Before-Part (Jiang, 2009).

Referring to Tai (1985) and other scholars' research, Jiang (2009) classifies the WO principles and sub-principles of Chinese into three domains: the conceptual principles, the functional principles and the grammatical principles. Jiang (2009) articulates that two major conceptual principles that CWO observes are the Principle of Temporal Sequence (PTS) and the Principle of Whole-Before-Part (WBP), which reflect Chinese native speakers' conceptualisation of the world. By contrast, English adopts the Principle of Part-Before-Whole (PBW) and does not seriously follow the Principle of Temporal Sequence. The PTS principle arranges the order of linguistic structures in accordance with the temporal sequence, requiring what happens earlier to precede what happens later, and the WBP principle states that 'a larger scope [should] precede a smaller scope in terms of space, time and amount, amongst others' (Jiang, 2009, p.94). It should be noted that the larger scope is regarded as the whole and the smaller one is seen as the part.

Furthermore, similar to the left-branching feature of Chinese, the Principle of Modifier-Before-Head (MBH) in Chinese proposed by Tai (1993) suggests

that in Chinese, a modifier usually should be placed ahead of the headword whether the modifier is an/a adjective, noun, phrase or relative clause. By contrast, English has no equivalent principle as modifiers in English can be located before or after the headword.

1.5 Approaches to the Study of Chinese L2 Word Order

As a significant part of second language acquisition (SLA), WO study has drawn more attention and various approaches have been adopted to carry out relevant research. In view of the complexity of CWO, it is assumed that L2 Chinese learners may produce various errors during the acquisition process. In order to have a comprehensive analysis of participants' acquisition of CWO, this research adopts Contrastive Analysis Hypothesis (CAH) and Error Analysis (EA) as the principal approaches. According to Hammerley (1982), Contrastive Analysis Hypothesis can provide explanation for L2 errors while Error Analysis can confirm or deny the prediction made by Contrastive Analysis. Therefore, the integration of CAH and EA is instrumental in exploring learners' acquisition of CWO and the WO errors they make. Furthermore, the theories of Cross-linguistic Influence and Interlanguage System are employed to account for learners' WO acquisition.

1.6 Objectives and Research Questions of this Study

This study mainly analyses WO concerning the attributive-headword structure, the adverbial-headword structure, the verb-complement structure, the subject-verb structure and the verb-object structure, which are five basic structures that students must learn when acquiring modern Chinese as a second language (Lu, 1997). Furthermore, through recruiting students of different grade levels and examining their proficiency in CWO, this project strives to provide some pedagogical implications for TCSL/TCFL. This study aims to deal with the following four questions.

1. What are the features of CWO in comparison with EWO?
2. What kinds of WO errors do L2 Chinese learners often make when acquiring the primary Chinese structures?
3. What are the main causes of L2 learners' WO errors?
4. How can this research help with the learning and teaching of CWO?

The first research question is raised to lay a solid linguistic foundation for understanding and analysing learners' application of CWO. To achieve this objective, a detailed comparison between Chinese and English word order regarding the five primary Chinese structures is carried out. According to Lü (1999), it is not difficult to point out the differences and/or similarities among things, but it is not that easy to explore the causes of these differences and/or similarities, which is a significant objective of contrastive study. This project tries to not only present the differences and similarities between Chinese and English word order, but investigate the reasons behind students' WO errors as well. Therefore, the second and third research questions are imperative. As a major part of this study, the second research question aims to examine learners' WO errors, identify students' primary problems and classify their errors. The third research question is a further step toward the analysis of learners' errors as it is an effort to explain why learners make these WO errors. The fourth research question relates to the principal objective of this study, namely to provide some pedagogical suggestions for improving the learning and teaching of CWO.

1.7 The Structure of this Study

This study comprises seven chapters altogether. Chapter 1 introduces the research context, the importance of WO in Chinese, the major differences between and principles of Chinese and English WO, approaches to studying learners' WO acquisition and the research questions and objectives.

Chapter 2 reviews theories and approaches used in SLA and L2 word order acquisition, including Contrastive Analysis, Error Analysis, Interlanguage

Theory, and Cross-linguistic Influence, which can help with analysing the errors and understanding the difficulties occurring in learners' application of CWO. Furthermore, a linguistic description of CWO and studies on Chinese L2 word order and WO errors are included so as to situate this study in the relevant field.

Chapter 3 presents a linguistic account of the five principal Chinese structures: the attributive-headword structure, the adverbial-headword structure, the verb-complement structure, the subject-verb structure and the verb-object structure. Word order related to the former three structures is the focus of this research. A comparison between Chinese and English regarding these five constructions is included. This chapter establishes a linguistic framework for the subsequent data analysis part.

Chapter 4 illustrates the research instrument for collecting data, the method of analysing data, information about the participants and ethical considerations. This study adopts a questionnaire to test three groups of participants' proficiency in CWO, and these participants consist of English-speaking learners of Chinese from the University of Leeds.

Chapter 5 describes participants' performance in the questionnaire, including their overall performance, their results in each structure and each task, the differences among the three L2 groups and the gap between the L2 groups and the control group.

Chapter 6 discusses the specific WO errors made by the participants, identifies their specific difficulties, classifies their errors, and explores the causes of their errors. Also, the hierarchy of difficulty concerning the concrete WO testing points is included.

Chapter 7 concludes the research results and tentatively provides pedagogical implications for TCSL/TCFL. In addition, the limitations of the current research and suggestions for future studies are also discussed in this chapter.

Chapter 2
Literature Review

To carry out an empirical study, it is crucial to establish a theoretical framework through reviewing the existing relevant research. Section 2.1 probes into theories and approaches about SLA, including Contrastive Analysis Hypothesis, Error Analysis, Interlanguage Theory and Cross-linguistic Influence, therefore locating this study in the field of SLA and building a theoretical framework for the discussion of L2 learners' acquisition of CWO. Following the SLA-oriented review, specific linguistic descriptions of CWO are presented in Section 2.2 to provide further support for the discussion of WO errors. Section 2.3 critically examines previous studies on Chinese L2 word order and WO errors and proposes the research gap that this project aims to bridge.

2.1 Theoretical Approaches in Second Language Acquisition

In the field of SLA, there are various theories and approaches available for carrying out research, such as Chomsky's Universal Grammar, Krashen's Monitor Theory and Input Hypothesis, Contrastive Analysis Hypothesis, Error Analysis, Interlanguage Theory, Cross-linguistic Influence Theory, etc. This study resorts to the latter four theoretical approaches to investigating English-speaking learners' acquisition of CWO as they are more directly related to the comparison between Chinese and English word order as well as the account for WO errors.

2.1.1 Contrastive Analysis Hypothesis

In the first half of the 1900s, Behaviourism was a dominating theory not only in the field of psychology but in L2 teaching and learning as well. Drawing on the Behaviourism-related perspective that language learners' L1 habits

would interfere with the new habits they are going to acquire in L2, Fries (1945) first proposed the concept of Contrastive Analysis, which was later developed into Contrastive Analysis Hypothesis (CAH) by Lado in the 1950s and soon became a popular research method especially in contrastive linguistics. According to Lado (1957), a contrastive analysis of the linguistic differences between the target language and the native language is able to predict all relevant learning difficulties and errors.

Contrastive Analysis Hypothesis indicates that when L1 and L2 share similarities, learners will find it easier to acquire the L2 while differences between L1 and L2 will lead to difficulties for learners. However, Contrastive Analysis Hypothesis appears to both over-predict and under-predict the difficulties in L2 acquisition and it is not adequately supported in tests as many scholars argue that it fails to predict all the difficulties in foreign language learning. But on the whole, most researchers and teachers agree that learners will refer to languages they have previously learned when they are acquiring a new one (Spada and Lightbown, 2010). And it has been noticed that L1 influence varies with different aspects of L2 learning. For instance, WO is more sensitive to L1 influence than other grammatical morphemes (Spada and Lightbown, 2010). Being closely connected with the Behaviourism-related learning theory and Structuralism-related language theory since its generation, Contrastive Analysis Hypothesis intends to predict difficulties that learners may encounter through contrast. However, this intention proves to be both theoretically and practically insufficient as the Behaviourism-related learning theory oversimplifies human's learning process (Zhao, 2004). It should be noted that L2 learners' language development is complex and unstable. For example, learners may have correctly coped with some grammatical forms previously but err in the same form later on. Moreover, learners may adopt the strategy of avoidance when dealing with some L2 issues, so it is difficult to use CAH to precisely predict all the L2 difficulties or problems.

2.1.2 Error Analysis

A linguistic error is defined as a mistake that breaches the norm of the language (Ringbom, 1987, p.71). From 1960s to 1970s, it was observed that

L1 was not the only reason for errors made by learners, and the research focus was thus transferred from comparison between languages to errors itself. The systematic analysis of language errors propels the development of Error Analysis, which later becomes a significant approach to probing into the taxonomies of CWO errors. Proposed by Corder (1971), Error Analysis enables researchers to analyse the specific WO errors made by L2 learners and to have a clearer understanding of L2 learners' current competence in CWO acquisition. Error Analysis does not exclude the contrastive approach, but compares learners' errors with their target language, instead of comparing the native language with the target language. It puts focus on learners and their language system for the first time (Zhao, 2004). Through investigating errors made by L2 learners during their SLA process, Error Analysis can help us discover the regular patterns of learners' errors, including the error types and reasons (Wang, 2020).

As a result of the interference of previous language habits, learners are assumed to make errors in the target language (Corder, 1967). According to Li (1996), errors indicate what has deviated from the target language grammar and it is easier to identify and correct errors but tougher to clarify their causes. Wang (2020) points out that errors are systematic and regular, reflecting L2 learners' language competence whereas a mistake mainly refers to occasional faults made in speaking or writing, having little to do with language competence. Since errors can reflect the language system that the learner is currently acquiring at a particular time, various comparative research concerning learners' L1 and L2 has been carried out to predict or account for errors that learners may make (Corder, 1981).

Moreover, Error Analysis is beneficial not only for researchers and teachers' work, but also for learners' L2 acquisition as it enables learners to understand how and why the errors occur (Corder, 1967). As an experimental approach to verifying the theory of Contrastive Analysis, Error Analysis can reflect the mental process of L2 learning and help learners improve their current learning situation (Corder, 1967). However, Error Analysis cannot represent learners' communicative capacity and their strategies to deal with particular language uses, so it is important to make a longitudinal description of learners' interlanguage system (Corder, 1967). In addition, Ringbom (1987, p.69) points out that Error Analysis is criticised for overemphasising errors, thus being a 'one-sided and incomplete approach to

learner language'. When investigating learners' L2 acquisition, apart from focusing on learners' errors, their correct usage of L2 knowledge should be valued too. Through comparing and analysing both the correct and incorrect L2 usage, we can have a clearer picture of L2 learners' language proficiency and development. After all, not all errors in learners' language are caused by transfer and not all cases of transfer give rise to errors. Although Error Analysis has its limitations, it is still a significant approach to '[gain] a better understanding of the processes underlying L2-learning', especially when combined with other approaches like contrastive analysis, frequency counts, etc. (Ringbom,1987, pp.69-71).

2.1.3 Interlanguage Theory

First introduced by Selinker, interlanguage can be defined as the 'linguistic /cognitive space that exists between the native language and the language that one is learning'; it is a non-native language 'created and spoken whenever there is language contact' (Selinker, 2014, p.223). Moreover, interlanguage is independent, observable and based on language input (Selinker, 1972). It varies as learners' competence develops (Burt and Dulay, 1974), manifesting the unstable attribute of this linguistic system. Selinker (2014) concludes that there are two maxims in interlanguage semantics: all interlanguage data should be seen as idiosyncratic; there are always similarities and variations between interlanguage form/meaning and those of the target language no matter how proficient the learner is. In other words, interlanguage is greatly structured but never perfect when evaluated in the light of the target language, though deviating in structured ways and containing new forms (Selinker, 2014, p.223).

Corder (1971) emphasises that, from a synchronic perspective, interlanguage refers to a language system constructed by learners at a particular point of time while from a diachronic perspective, it indicates different stages of development that learners experience. According to Lü (1999), interlanguage system is different from learners' native language and target language; it's a language system that comes from learners' inaccurate conclusion and inference of the target language's rules. Davies (1984) points out that the concept of interlanguage could be understood and applied from

two aspects. The general application of interlanguage relates to the synchronic condition of any second language acquisition, which means all learners' language can become interlanguage. The second application is relatively stricter, suggesting a certain hypothesis about second language acquisition. Zhao (2004) asserts that Selinker's interlanguage hypothesis can be concluded in one sentence: the process of second language acquisition is based on underlying mental structure. This structure determines the psychological characteristics and process, the development rate and level of learners' SLA, along with the structural characteristics of learners' language system. Therefore, different understanding of the interlanguage system actually reflects scholars' different theoretical hypotheses about the SLA process.

Yao (2009, p.16) holds that as the Interlanguage Theory emphasises both the negative and positive influence of the native language on L2 acquisition, it breaks the theoretical limit of Contrastive Analysis and Error Analysis, which are centred on the negative transfer of learners' mother tongue. Broadly speaking, the main sources of grammatical errors in Chinese interlanguage lie in two aspects: the negative transfer from learners' native language and the over-generalisation of Chinese grammar (Li, 1996). Yao (2009, p.32) believes that the occurrence of interlanguage is based on two aspects. One is that learners must have already mastered their mother language which is quite different from the L2. Their knowledge and practice of their native language are certain to pose influence on their L2 acquisition, forming the base of their interlanguage system. The other is the comparison and contrast between the mother language and the target language. As comparison and contrast are common to the human mind and are widely used in language acquisition, such as comparison between vocabulary, pronunciation, WO, etc., they constitute another basis for interlanguage. On the one hand, we should pay attention to the independence of interlanguage as an independent language system; namely it is different from both the native language and the target language of the learner; on the other hand, we should also observe the influence from learners' mother language and target language on interlanguage (Zhao, 2004). Skehan (2018, p.33) concludes that 'language learning is not any sort of simple, linear, cumulative process', and learners should be able to 'develop their interlanguage system in more complex ways through cycles of analysis and synthesis.'

According to Selinker (1992), all second language acquisition research is based on Corder's research on Error Analysis and Interlanguage, and the Interlanguage Theory is indeed proposed on the basis of a full understanding of Contrastive Analysis and Error Analysis. Selinker (1992) claims that as a kind of analytical and descriptive approach, Contrastive Analysis and Error Analysis can provide good references for Interlanguage Theory. These three approaches or theories all accept the existence of native language transfer, but they have different theoretical basis. Besides, Error Analysis and Interlanguage Theory differ from Contrastive Analysis in their accounts for the existence of native language transfer. Contrastive Analysis regards native language transfer as the transfer of learners' speech performance while Interlanguage Theory's explanation of native language transfer is irrelevant with Behaviourism's learning theories. In Selinker's Interlanguage Theory model, language transfer is a highly selective process, comprising a series of choices about language input. Considering that Interlanguage Theory mainly refers to the language system between learners' L1 and L2, the influence from other languages that learners have previously acquired or are acquiring has not been stressed. When learners are acquiring a new language, their interlanguage system may involve not only the interaction between their target language and native language. If the language learner speaks two different mother languages, or they have their third language or even fourth language, Interlanguage Theory may not be sufficient to account for multilingual learners' interlanguage system.

2.1.4 Cross-Linguistic Influence

It has been noted that some aspects of L2 acquisition like pronunciation and WO are more likely to be influenced by L1 than others (Spada and Lightbown, 2010, p.125). According to Odlin and Li (2005, p.12), cross-linguistic influence, also known as transfer, is key to SLA research and it has been a focal point in many theories of language acquisition, such as the Processability Theory (Pienemann, 1998), the Contrastive Analysis Hypothesis (Lado, 1957), etc. Ringbom (1987) states that cross-linguistic influence can be divided into overt cross-linguistic influence and covert cross-linguistic influence. What mainly differentiates these two is whether the similarity between the target language and the native language is recognised

by the learner or not. According to Ringbom (1987, p.51), covert cross-linguistic influence indicates that learners use their L1 knowledge to bridge gaps of L2 whereas their ‘underlying knowledge’ remains unrelated to L2 because there lacks a ‘common reference frame’ between the L1 and L2. By contrast, overt cross-linguistic influence is dependent on perceived similarities, and can be classified as ‘transfer’ and ‘borrowing’. Transfer involves not only a shift of surface features or unanalysed knowledge from L1 to L2, but also an analysis of language usage, and it is a method that learners try to use to deal with a gap of knowledge (Ringbom, 1987, p.51). Odlin (1989, p.27) claims that transfer is the influence brought about by the similarities and differences between learners’ previously acquired language and current target language. When L2’s language habits have equivalents in L1, positive transfer will happen and if there are differences between L1 and L2 language use, negative transfer can occur (Li and Yang, 2015; Yu and Odlin, 2015).

Historically, transfer has been chiefly regarded as a hindrance to L2 acquisition (Jarvis, 2015). According to Yu and Odlin (2015, p.18), in the late 1970s, Ringbom and Kellerman contributed much to the transformation of transfer study as they examined transfer as a dependent variable instead of an independent variable and adopted the a posteriori perspective for analysis. Jarvis and Pavlenko (2008) achieved eight prominent findings on transfer, which further indicate that learners seem to experience fewer difficulties with L2 grammatical morphemes that have functional equivalents in their L1 or share similarities with their L1. Selinker (1992) asserts that L1 transfer is not to transfer the characteristics of learners’ native language to their target language system, but to their interlanguage system. L1 transfer becomes possible only when the existence of learners’ interlanguage system is accepted. According to Montrul (2014), many typical errors in SLA are caused by the influence from the native language, namely language transfer, which is a characteristic of the cognitive process of SLA.

According to Sharwood-Smith and Kellerman (1986, p.1), the term ‘transfer’ is not wide enough to cover every aspect of L1’s influence on L2 acquisition, and they propose that the term ‘cross-linguistic influence’ is broad enough to include the phenomena of ‘transfer’, ‘interference’, ‘avoidance’, ‘borrowing’ and ‘L2-related aspects of language loss.’ In this study, the terms of ‘cross-linguistic influence’ and ‘transfer’ share the same meaning, with ‘transfer’

being subdivided as ‘negative transfer’ and ‘positive transfer’. Although the theory of Cross-Linguistic Influence is able to account for many errors in SLA as well as L2 learners’ performance in some language uses, the influence of L1 transfer is limited, and the degree and direction of L1 transfer calls for more attention from researchers and scholars. For multilingual learners’ language acquisition, Cross-Linguistic Influence seems to be less effective to account for the transfer phenomenon.

2.2 Linguistic Description of Chinese Word Order

In the 1890s, Ma Jianzhong started to adopt Western grammatical notions like subject, object and verb to describe CWO in his grammar work. Li (1982) claims that due to the lack of inflexional elements, Chinese expresses the syntactic relations of sentence elements through the change of WO. Chao (1968) stresses the importance of WO in Chinese by stating that Chinese grammar is intimately related to WO.

Cited from Pan (1997), Humboldt was the first to propose that Chinese uses WO and function words to suggest the relation among words, yet Humboldt did not regard WO as a grammatical marker; by contrast, Sweet was the first to emphasise WO as a grammatical approach. Pan (1997) claims that as Chinese has no morphology, it has to adopt WO and function words as the primary methods of language organisation; therefore, WO and function words play an important role in Chinese grammar.

Chen (1995, p.218) stresses the significance of ‘the linear order of sentence elements’ in Chinese from three aspects. Firstly, Chinese is a syllable-timed language, in which the role of stress in conveying information is not as important as that in stress-timed languages like English. Secondly, Chinese has no tense and aspect markers to structure information. Thirdly, Chinese has no articles to indicate definiteness and indefiniteness. As a result, WO plays a crucial role in information structuring in Chinese.

Though it is conventionally agreed that both Chinese and English present the SVO word order, Li and Thompson (1981, p.19) argue that ‘subject’ in Chinese is hard to be defined structurally as it is not an exact equivalent to that in English; they (1981) propose that English can be classified as a subject-prominent language while Chinese can be regarded as a topic-prominent language. This viewpoint has great influence on later discussions of Chinese sentence structure.

According to Sun (1996), in the 1970s, some Western linguists specialising in Chinese held that Chinese had been under the transition from SVO word order to SOV word order in its development history. Nevertheless, Sun (1996, p.10) asserts that the WO of Mandarin is ‘clearly SVO’ as in both written and spoken texts of modern Chinese, 90% of syntactic objects follow the verb. What’s more, Kang (2015) criticises the assertion that Chinese is undergoing a transition from SVO to SOV, emphasising that Chinese features SVO word order and CWO has regular patterns to follow.

LaPolla (1995) claims that the structure of Chinese sentences is dependent on the pragmatic relation between the topical and focal parts. The topical part precedes the verb and the focal part is a comment about the topic following the verb. According to LaPolla (2009, p.20), the topic-focal structure can be used to explain almost all the sentence patterns in Chinese and it is needless to use grammaticalised concepts like subject to analyse Chinese sentences. Nevertheless, LaPolla’s proposition seems to be oversimplified and this study adopts the SVO pattern as the canonical CWO because most of Chinese sentences feature the SVO structure. As stated by Xing (1993, pp.15-16), the canonical SVO word order is adopted in approximately 90% of modern Chinese sentences, and the remaining 10% includes other types of WO such as the OSV construction and the topic-comment construction.

Pan (1997) compares CWO with EWO in a dialectic and omnibearing perspective. He claims that as Chinese is a kind of semantic language, the semantic collocation is the most important factor in determining WO in Chinese. Broadly speaking, CWO is restricted by the logic order. For example, concerning the temporal order, things happen first are mentioned first. Concerning the spatial order, larger spatial scope comes before the

smaller one. Besides, the cause of an event generally precedes the result. According to Pan (1997), on the one hand, the temporal rules and spatial rules make CWO relatively stable whereas English tends to be more flexible; on the other hand, based on different semantic focuses, Chinese can use almost any kind of language elements as the topic, which makes CWO more flexible than English. In a macroscopic way, CWO is under the regulation of logic while EWO is primarily governed by morphology. As the logic order follows strict rules, CWO is more stable whereas EWO is more flexible because morphology can usually break the logic order. Nevertheless, CWO can also be flexible as rhyme or rhythm can break the limit of logic order in Chinese. In general, the combination of syllables and psychological emphasis determines the WO of multiple modifiers in Chinese (Pan 1997).

In sum, this study follows the assertion that Chinese is a SVO language (Xing, 1993; Sun, 1996; Jiang, 2009; Kang, 2015), and its WO is under the regulation of logic, semantic, pragmatic and rhythmic factors. And this research is designed to study Mandarin in the context of written language. This means the Chinese language investigated in this study should follow the widely accepted grammatical rules in the contemporary Mandarin-speaking society and the WO is regulated by the aforementioned factors.

2.3 Studies on Chinese L2 Word Order and Word Order Errors

This section reviews relevant studies on Chinese L2 word order and word order errors. It is noteworthy that many of the existing CWO-related studies are focused on attributive or adverbial WO; few of them cover all the five primary Chinese structures, namely the attributive-headword structure, the adverbial-headword structure, the verb-complement structure, the subject-verb structure and the verb-object structure. In addition, as a large quantity of research is based on HSK-related (an official Chinese proficiency test) corpus data instead of practically collected data, thus the hierarchical differences of L2 learners' grasp of CWO may not be presented adequately.

Kang (2015) published his work on CWO teaching and learning, which utilises WO as a framework to connect every level of linguistic unit and syntactic rules in Chinese. Word order is valued as the root of Chinese grammar while other syntactic rules are derived from this foundation (Kang, 2015). With the theoretical support of the functional principle and conceptual principle in Chinese, Kang (2015) studies the rules of CWO, including the organisation principle of Chinese syntactic structures, the position of different types of sentence elements, etc. He disproves the idea that Chinese is an irregular language and articulates that Chinese sticks to the SVO word order, features fixed WO patterns and the sequence of sentence elements follows certain restrictions. Moreover, Kang holds that the topic-comment structure in Chinese is also a type of WO, though different from the natural WO, and it is an effective method of teaching Chinese. Although Kang's work elaborates the regularities and rules of CWO from various aspects, it is mainly set in the ontological research context of CWO; therefore, its empirical data is not enough, and the relevant pedagogical implications for WO teaching and learning are not discussed in detail.

Qiao (2011) carries out a comparative research on the adjective-noun structure in Chinese and English, revealing the similarities and differences of the adjective-noun structure between these two languages, including types of the adjective-noun structure, semantic collocation characteristics of the adjective-noun structure, syntactic function of the adjective-noun structure, WO of the adjective-noun structure, the marker of the adjective-noun structure, WO of multiple attributives and so on. Qiao's research probes into the contributing factors and typological characteristics of Chinese and English adjective-noun structures from the perspective of cognitive linguistics. Furthermore, it also considers different translations of the adjective-noun phrase and summarises some sequencing rules of attributive modifiers in Chinese and English. For example, the sequencing of multiple Chinese attributives generally follows determiners that suggest time, quantity, possession and scope - phrase attributives - nationality words - description attributives such as age, size, shape, colour, etc. - classifier attributives that suggest material, function, type, etc.; in contrast, the order of multiple attributives in English usually follows determiners like articles, demonstratives, possessive pronouns and quantity words - description attributives that suggest measurement, age, shape and colour - classifier attributives that suggest nationality, material and function.

In short, Qiao's research explores the adjective-noun structure from various aspects. However, it only deals with the case of adjectives being used as modifiers, without examining attributives comprised of other constituents like prepositional phrases, verbal phrases and nouns; as a result, its applicability to research on the attributive-headword structure is limited to some degree. When investigating English-speaking learners' acquisition of the Chinese adjective-noun structure, Qiao only examined the wrong usage of the attributive marker 'de' through citing several examples from others' research. Therefore, it would have been better if Qiao's research had used more empirically-collected data to verify his comparison of Chinese and English adjective-noun structures because English-speaking learners' problems of acquiring the Chinese adjective-noun structure lie not only in the use of 'de' but the specific ordering as well. Moreover, Qiao's categorisation of multiple Chinese attributives' sequencing rule seems disputable. For instance, he classifies attributives indicating nationality into a single type and emphasises that nationality-related words should always precede descriptive attributives in Chinese. However, nationality-related words can fall into the category of descriptive attributives and they do not always precede other kinds of descriptive attributives. It is important to point out that the sequencing rule of multiple Chinese attributives varies slightly in different scholars' opinions, and this study mainly adopts the sequencing rule proposed by Liu et al. (2001)[1].

Focusing on the effects of noun phrase (NP) weight on WO variation in Mandarin Chinese, specifically on the alternation between Chinese SVO and SOV word orders, Yao (2018) carries out a corpus analysis with two verb-specific data sets consisting of '放' (fang [put]) and '拿' (na [take]). The results of Yao's research show that both conceptual and positional factors work in the preverbal domain in Mandarin Chinese while the relative sensitivity to conceptual and positional factors can vary in a language. Specifically, the SVO-ba alternation in Mandarin Chinese is conditioned by both conceptual salience and form accessibility. Yao concludes that the

[1] ① possessive nominals >② locative words/temporal words > ③ quantifiers (followed by descriptive attributives) > ④ subject-verb phrases/verbs/verbal phrases/prepositional phrases > ⑤ quantifiers (preceded by restrictive attributives) > ⑥ descriptive modifiers that suggest opinion, age, size, colour, shape, etc. > ⑦ adjectives without 'de' and other descriptive nouns > ⑧ headword

effects of NP weight on WO variation are more complex in Mandarin Chinese than other languages like English, Japanese, etc. However, though Yao examines both the short-before-long and long-before-short tendencies in WO variation across the preverbal and postverbal domains, only two verb-specific data sets are chosen for research, which cripples its persuasiveness and comprehensiveness to some degree. Moreover, although the conceptual and positional factors are important in modulating WO variation, they are not explained in detail in Yao's research, which may pose difficulties for the audience to fully understand the author's research findings.

Wang (2011) carries out a study on English-speaking students' acquisition of Chinese binominal attributives in China. Wang collects 40 types of binominal attributives from existing L2 Chinese text books and investigates ten of the most commonly used binominal attributives through testing 36 English-speaking students by questionnaire. The results of Wang's project show that English native speakers' acquisition of Chinese binominal attributives is subject to the negative transfer from their mother tongue, particularly at the beginning stage. Wang's study provides some pedagogical implications for teaching multiple Chinese attributives' WO, such as clarifying the differences between Chinese and English binominal attributives' WO to students at the initial stage and meanwhile forcibly instructing students to learn the rules of Chinese binominal attributives. However, the number of test questions and participants in Wang's study are not enough to elicit adequate data, and Wang does not clarify how the participants' Chinese level is determined. The validity of Wang's explanations for the research results is weakened to some extent as her study cannot explain some of the test results, such as advanced-level learners' poorer performance in the 'quantifier + verb' binominal attributive pattern.

Centred on the HSK dynamic composition corpus, Yin (2012) investigates English-speaking students' WO errors about Chinese adverbials. After counting all the CWO errors made by L2 learners, Yin concludes that the adverbial-related WO errors account for the largest proportion. Adopting Corder's Error Analysis approach, Yin categorises Chinese adverbial WO errors into monomial adverbial WO errors and multiple adverbial WO errors. Under the category of monomial adverbial WO errors, more detailed sub-categories are provided, including reversed adverbials and headwords, misplaced adverbials and complements, and erroneous adverbial semantic

reference; as for the category of multiple adverbial WO errors, Yin divides them into errors of multiple adverbials with normal WO and multiple adverbials with mutated WO. Yin's study also claims that there are four causes of WO errors: the complexity and flexibility of Chinese adverbials' WO, the negative transfer of mother tongue, learners' use of literal translation to construct Chinese sentences and learners' inaccurate grasp of Chinese grammar. However, Yin's conclusions on the causes of Chinese adverbial WO errors seem overlapping because in many cases, the use of literal translation in the target language is a reflection of L1 negative transfer. Moreover, Yin's study does not have enough theoretical support as it only adopts Error Analysis as a research approach, which makes her explanation for the adverbial WO errors less valid and adequate.

Zhang (2015) studies the strategies of teaching CWO to English native speakers. Zhang's study involves WO of both attributives and adverbials; it compares the differences and similarities between Chinese and English word order regarding monomial and multiple attributives as well as adverbials. The linguistic data of Zhang's project comes from the HSK dynamic composition corpus and English native speakers' production of Chinese. Theories like Error Analysis, Interlanguage Theory and Contrastive Analysis are applied to analyse the WO errors, among which the proportion of attributive-related WO errors is 16.8% while adverbial-related WO errors comprise 38%. Zhang proposes that the generation of WO errors lies in the first language's negative transfer, overgeneralisation of the target language's rules, inaccurate grasp of the target language's grammatical rules and the influence from English mode of thinking. Based on these findings, Zhang comes up with corresponding suggestions and strategies for teaching CWO and compiling teaching materials, such as stressing the contrast between Chinese and English WO so as to deal with the negative L1 transfer, teaching in an orderly way and highlighting the key points so as to cope with students' insufficient grasp of target grammatical rules, and providing examples and exercises targeting particular CWO points. Nevertheless, the validity of these suggestions and strategies needs to be specified and verified further because Zhang just collected data from the corpus and some foreign students studying in China, without classifying the participants or data into different levels. Though three theories or theoretical approaches have been adopted in Zhang's study, these theories are just discussed roughly and are not adequately applied to explaining WO errors.

On the basis of practical teaching experience, Jin (2011) explores English-speaking learners' CWO errors related to attributives, adverbials and complements. Jin compares Chinese and English word order from three angles, including modes of thinking, linguistic construction and sentence extending mechanisms. Jin categorises the WO errors with respect to attributives, adverbials and complements, emphasising the importance of contrasting Chinese and English word order in courses of teaching Chinese as a foreign language. However, Jin's categorisation lacks subcategories and theoretical support. In addition, when describing the WO of complements in Chinese and English, Jin confuses Chinese complements with English complements by classifying Chinese complements into object complements and subject complements, which does not conform to the case of Chinese complements. Thus, the depth and validity of Jin's study are weakened to some degree.

Under the Cognitive Functionalism framework, Jiang (2009) critically evaluates existing WO error taxonomies and investigates the types of Chinese L2 word order errors. Jiang (2009, p.74) cites Ko, who classifies improper Chinese L2 word order into four types: time and location words, modification structure, topic-comment relation and miscellaneous. Based on Ko's categorisation, Jiang sums up four WO error categories, including time and location words, modification structures, inappropriateness and topic-comment relations, adopting 'violation of any basic WO principle or sub-principle' as the sole criterion for identifying Chinese L2 word order errors (p.128). Jiang further categorises English-speaking learners' errors in light of seven principles: the Greenberg Pattern Principle, the Principle of Modifier Before Head, the Principle of Communicative Dynamism, the Principle of Temporal Sequence, the Principle of Whole Before Part, the Principle of Focus, and the Empathetic Principle. Of these principles, the Principle of Temporal Sequence is proved to be able to account for the widest range (62%) of WO errors, indicating that most WO errors are caused by different WO arrangements to express temporally sequential events in Chinese and English. Although Jiang's data-based research provides insights into the taxonomies of CWO errors, it mainly pays attention to the classification of Chinese L2 word order errors, without a detailed explanation of WO errors, and lacks a comprehensive account of specific WO issues such as Chinese attributive and adverbial WO.

The research discussed above provides various insights for this study, such as ways to describe Chinese and English word order, to analyse WO errors and to categorise WO errors. Jiang's research is of particular significance for reference as it clarifies the criterion for identifying WO errors, specific WO principles of Chinese and comprehensive taxonomies of Chinese L2 word order errors. For example, referring to Jiang's proposal, this study adopts the Principles of Modifier-Before-Head, Whole-Before-Part and so on to account for relevant WO errors because these principles are the general rules governing CWO. What's more, Jiang classified Chinese L2 WO errors in the grammatical, conceptual, functional and sociocultural domains separately. Learning from Jiang's categorisation, this study classifies WO errors into grammatical, pragmatic and semantic types so as to have a more comprehensive presentation of learners' application of CWO.

Overall, based on the relevant SLA theories, linguistic discussions of CWO and existing research on CWO, this study develops an analytical framework at the sentence level, which consists of two perspectives: WO structure and WO task; five dimensions: the attributive-headword structure, the adverbial-headword structure, the verb-complement structure, the subject-verb structure and the verb-object structure; three categories: grammatical, semantic and pragmatic; three analytical methods: immediate constituent analysis, sentence element analysis and semantic analysis; four theoretical approaches: Contrastive Analysis Hypothesis, Error Analysis, Interlanguage Theory and Cross-linguistic Influence; three WO principles: Modifier-Before-Head, Whole-Before-Part and the Principle of Temporal Sequence, and pertinent CWO rules and regularities proposed by scholars and researchers. To answer the first research question 'What are the features of CWO in comparison with EWO?' and lay a solid foundation for data analysis, the following chapter presents a linguistic account of the five primary Chinese structures in comparison with English.

Chapter 3
Linguistic Account of the Five Principal Chinese Structures

According to Ma (1981), the five most common and basic structures in Chinese are the endocentric structure, the verb-object structure, the verb-complement structure, the subject-verb structure, and the coordinating structure. Regarding the endocentric structure, which comprises the modifier and the headword, it includes the attributive-headword structure and the adverbial-headword structure. Based on the sentence level, this study seeks to analyse English-speaking learners' acquisition of CWO in terms of the modern Chinese attributive-headword structure, adverbial-headword structure, verb-complement structure, subject-verb structure and verb-object structure. The coordinating structure is not investigated here because on the one hand, its word order is basically the same in Chinese and English, such as '父亲母亲' (father and mother); on the other hand, it can be a coordination of each of the attributive-headword structure, adverbial-headword structure, verb-complement structure, subject-verb structure and verb-object structure, for instance, '惊天又动地' (shake the heaven and startle the earth) and '吃得尽兴、喝得满足' (eat and drink to one's satisfaction). To achieve a better analysis and presentation of L2 learners' WO acquisition, these five Chinese structures' forms and features are illustrated with examples and in comparison with English. The forms and features of both Chinese and English constructions are illustrated according to relevant grammar books and research, such as *Xian Dai Han Yu* (Huang and Liao, 2002), *Shi Yong Han Yu Yong Fa* (Fang, 1992), *A practical English grammar* (Zhang, 2002*)*, and so on and so forth. From a contrastive perspective, the specific syntactic characteristics concerning the five structures in Chinese and English are analysed separately, with the Chinese part being elaborated first, followed by the corresponding English structures.

3.1 Attributive-Headword Structure

As a significant structure in both Chinese and English, the attributive-headword structure comprises the attributive modifier and the headword. This section elaborates the grammatical constituents and positions of the attributive and headword, the forms and markers of the attributive-headword construction and the sequence of multiple attributives. The Chinese attributive-headword structure is discussed first; then the English counterpart is presented, followed by the comparative analysis of Chinese and English attributive-headword structures.

3.1.1 Major Forms and Features of Chinese Attributive-Headword Structure

According to Huang and Liao (2002), a modifier is used to describe or restrict the headword, and the Chinese attributive modifier is placed before the nominal expression. In Chinese, adjectives, nouns, verbs, measure words, etc. can be used as attributives to modify the headword and usually the headword comprises nominals (Tiee, 1986; Fang, 1992). Many Chinese words have multiple parts of speech, and they can be used as verbs, adjectives or nouns without morphological changes. Yet when these words are used as headwords in the attributive-headword structure, their part of speech is usually nominal (Huang and Liao, 2002). Zhao (2006) asserts that Chinese attributive modifiers like phrases are usually prior to the modified headword. Generally speaking, WO of the Chinese attributive-headword structure follows the modifier-before-headword pattern. Namely, the attributive precedes the headword. The salient marker of Chinese attributive-headword structure is ‘的’ (de), which is placed between the attributive and the headword. Yet in many cases, there is no overt marker in this structure (Pan, 1997).

The forms of Chinese attributive-headword structure are divided into two types in this study: the simple attributive-headword structure and the complex attributive-headword structure. The former mainly consists of monomial attributives - a single word or a set phrase (such as ‘匆忙’ [busy]

and ‘匆匆忙忙’ [be in rush]) while the latter comprises phrasal/clausal attributives (such as ‘出生在中国’ [born in China] and ‘热爱中文’ [love Chinese]) or multiple attributives that involve at least two attributive modifiers of any kind (such as ‘我的两个’ [two of mine]).

3.1.1.1 Simple Chinese Attributive-Headword Structure

The simple Chinese attributive-headword structure here means that there is only one attributive before the headword, and this monomial modifier can be a noun, a verb, a set phrase, and so on. According to Tiee (1986, pp.122-129) and Fang (1992, pp.210-212), the forms of simple Chinese attributive-headword structure are illustrated as follows.

① Noun (+ de ‘的’) + Headword

天空的颜色 (the colour of the sky); 薄荷香味 (mint scent); 观众的喝彩 (the audience’s cheers)

② Pronoun (+ de ‘的’) + Headword

这个村庄 (this village); 他们的支持 (their support); 那儿的繁华 (prosperity in that place)

③ Adjective (+ de ‘的’) + Headword

皎洁的月光 (bright moonlight); 寂静的街道 (a quiet street); 薄毛衣 (a light sweater)

④ Quantifier (+ de ‘的’) + Headword

一千克苹果 (one kilogram of apples); 一打鸡蛋 (a dozen eggs); 八十岁的祖父母 (eighty-year-old grandparents)

⑤ Verb (+ de ‘的’) + Headword

运输费 (shipping charge); 访问学者 (visiting scholars); 学习的地方 (a place for studying)

3.1.1.2 Complex Chinese Attributive-Headword Structure

The complex Chinese attributive-headword structure means that the modifier before the headword may be one phrasal/clausal attributive or multiple attributives, and there is usually an attributive marker 'de' (的) between the attributive and headword. According to Tiee (1986, pp.129-133) and Fang (1992, pp.212-217), the forms of complex Chinese attributive-headword structure are generalised as follows:

① Subject-verb phrase + de (的) + Headword

妈 妈 做 的 饭;	学 校 举 办 的 活 动
ma ma zuo de fan;	*xue xiao ju ban de huo dong*
mom does de meal;	school organises de activity
meals cooked by mom;	activities organised by the school

② Verb-object phrase + de (的) + Headword

追 风 筝 的 男 孩;	结 果 子 的 树
zhui feng zheng de nan hai;	*jie guo zi de shu*
chase kite de boy;	bear fruit de tree
the boy that runs after the kite;	trees that bear fruit

③ Verb-complement phrase + de (的) + Headword

长 不 胖 的 女 孩;	睡 过 头 的 学 生
zhang bu pang de nü hai;	*shui guo tou de xue sheng*
grow not fat de girl;	sleep over de student
girls who will not gain weight;	students who overslept

④ Clause + de (的) + Headword

玛丽回家 很 晚 的 原因; 他饭后 抽 烟 的习 惯

ma li hui jia hen wan de yuan yin; *ta fan hou chou yan de xi guan*

Mary goes home very late de reason; he meal after smokes de habit

the reason why Mary went home late; his habit of smoking after meals

⑤ Prepositional phrase + de (的) + Headword

在 英 国 的 朋 友; 关 于 未 来的 焦 虑

zai ying guo de peng you; *guan yu wei lai de jiao lü*

in UK de friend; about future de anxiety

friends in the UK; anxiety about the future

⑥ Coordinating phrase + de (的) + Headword

Coordinating phrases consist of two or more words that are juxtaposed with equal importance. In general, each constituent of the coordinating phrase has the same or similar part of speech. When the coordinating phrase is used as a modifier, no matter how many constituents it may have, it is regarded as one modifier. For instance, in '爷爷奶奶、爸爸妈妈的期待' (grandparents and parents' expectations), '爷爷奶奶、爸爸妈妈' is regarded as one nominal phrasal attributive rather than two separate attributives.

学 生、 教 师 和 工 人 的 抗 议

xue sheng、jiao shi he gong ren de kang yi

student, teacher and worker de protest

protests by students, teachers and workers

诚 实 善 良 又 勇 敢 的 人 们

cheng shi shan liang you yong gan de ren men

honest kind and brave de people

people who are honest, kind and brave

⑦ Multiple attributives + de (的) + Headword

Multiple attributives refer to two or more attributives before the headword (Tian, 1994). The multiple attributives' part of speech can be the same or different, and their sequence usually follows certain rules. According to their function and relation with the headword, attributives can be classified as descriptive or restrictive. Descriptive attributives are usually comprised of adjectives and used to modify the headword, while restrictive attributives mainly consist of nominals, verbs or verbal phrases, and they are used to restrict or illustrate the headword. According to Liu et al. (2001) and Wang (2012), the position of restrictive attributives normally precedes the descriptive attributives, and attributives followed by attributive marker '的' (de) are usually placed before those without '的'.

Ex.4 中国 (restrictive) 最长的 (descriptive) 河流 (headword) 是长江。

zhong guo zui chang de he liu shi chang jiang

China longest de river is Changjiang

The longest river in China is the Changjiang River.

According to Liu et al. (2001, p.494), when a group of attributive modifiers are placed before the headword, the WO in Chinese sentences usually goes by ① possessive nominals > ② locative words/temporal words > ③ quantifiers (followed by descriptive attributives) > ④ subject-verb phrases/verbal phrases/prepositional phrases/verbs > ⑤ quantifiers (preceded by restrictive attributives) > ⑥ descriptive modifiers that suggest opinion, age, size, colour, shape, etc. > ⑦ adjectives without 'de' and other descriptive nouns > ⑧ headword.

Ex.5 ①她 ②去年 ④设计的 ⑤五款 ⑥红色 ⑦波点 ⑧围巾都很好看。

ta qu nian she ji de wu kuan hong se bo dian wei jin dou hen hao kan

she last year designed de five red polka dot scarf all very pretty

Five red scarfs with polka dots she designed last year all look pretty.

For multiple restrictive attributives, the sentence order follows ① possessive nominals > ② locative words/temporal words > ③ subject-verb

phrases/verbal phrases/prepositional phrases/verbs > ④ quantifiers > ⑤ headword (Liu et al., 2001, p.490).

Ex.6 ①妈妈 ②昨晚 ③煮的 ④一碗 ⑤面很好吃。

ma ma zuo wan zhu de yi wan mian hen hao chi

mom last night cooked de a bowl of noodle very delicious

Mom cooked a bowl of tasty noodles last night.

It is noteworthy that the position of quantifiers is variable. In some cases, quantifiers can be placed before or after the subject-verb phrases/verbal phrases/prepositional phrases/verbs. When the quantifier precedes the phrasal/verbal modifier, the information status of the headword tends to be new or indefinite, whereas when the quantifier follows the phrasal/verbal modifier, the information status of the headword is known or definite (Del Gobbo, 2003, cited in Ming and Chen, 2010, p.170).

Ex.7 我们大学东校区**一座新修的**食堂现在已经开放了/ 我们大学东校区**新修的一座**食堂现在已经开放了。

wo men da xue dong xiao qu yi zuo xin xiu de shi tang xian zai yi jing kai fang le / wo men da xue dong xiao qu xin xiu de yi zuo shi tang xian zai yi jing kai fang le

our college eastern campus a newly built de refectory now has opened le / our college eastern campus newly built de a refectory now has opened le

One newly built refectory at the eastern campus of our college has now opened.

In Ex.7, when the verbal phrase '新修的' (newly built) is preceded by '一座' (a/one + Chinese measure word), it is a descriptive attributive revealing a new state of the headword; in contrast, when '新修的' precedes '一座', it is a restrictive attributive that defines the scope of the headword.

For multiple descriptive attributives, generally the order goes like ① subject-verb phrases > ② verbs/verbal phrases/prepositional phrases > ③

adjectives/adjectival phrases and other descriptive words that suggest opinion, age, size, colour, shape, etc. > ④ adjectives without ‘de’ and other descriptive nouns > ⑤ headword (Liu et al., 2001, p.491).

Ex.8 那个①做工精美的②镶钻③小④单肩⑤包卖一万美元。

n*a ge zuo gong jing mei de xiang zuan xiao dan jian bao mai yi wan mei yuan*

that workmanship exquisite de inset diamond small single shoulder bag sells 10,000 dollars

That exquisitely crafted small single-shoulder bag studded with diamonds sells for 10,000 dollars.

In addition, the specific WO of adjectives/adjectival phrases and other descriptive words that suggest opinion, size, colour, shape, etc. usually goes by opinion > age > size > source > colour > shape > material > function (Liu et al., 2001; Wang, 2012). However, this kind of WO is not fixed; in some cases it can be adjusted according to the speaker’s intention of emphasis (Qiao, 2011, p.193).

Ex.9 一 张 老 旧 的 小 号 红 色 圆 木 桌

yi zhang lao jiu de xiao hao hong se yuan mu zhuo

an old de small red round wooden table

a small old round red wooden table

In Ex.9, the multiple descriptive words may also be combined in a different WO like ‘一张红色的小号老旧圆木桌’, depending on the semantic emphasis, but the sequencing should follow the rhythmic rule. That is, words with more syllables usually precede those with less syllables (Pan, 1997).

Furthermore, as for the sequencing of multiple attributives suggesting time or location, the Principle of Temporal Sequence (Tai, 1985) and the Whole-Before-Part Principle (Hu, 1995; Jiang, 2009) are observed. The former principle requires what happens earlier to precede what happens later, and

the latter principle requires the larger scope to precede the smaller scope in terms of space, time and amount.

Ex.10 2001 年 9月 11日的 恐 怖袭击 事 件 真 是 骇 人 听闻。

2001 nian 9 yue 11 ri de kong bu xi ji shi jian zhen shi hai ren ting wen

2001 September 11 de terrorist attack event really was appalling

The terrorist attack on 11th September 2001 was really appalling.

Ex.11 陕 西 省 西安 市 临 潼 区 的 兵 马 俑 很 有 名。

s*han xi sheng xi an shi lin tong qu de bing ma yong hen you ming*

Shaanxi province Xi'an city Lintong district de terracotta warriors very famous

The terracotta warriors in Lintong District, Xi'an, Shaanxi Province are very famous.

In addition, although most Chinese attributives are used as prepositive modifiers, occasionally there are some postpositive attributives occurring in literary language for rhetorical purposes or in colloquial language for emphatic purposes.

Ex.12 公 鸡 十 只，母 鸡 五 只

gong ji shi zhi, mu ji wu zhi

roosters ten, hens five

ten roosters and five hens

Ex.13 我还期待着新的东西到来，无名的，意外的。（鲁迅《伤逝》）

wo hai qi dai zhe xin de dong xi dao lai, wu ming de, yi wai de (Lu Xun, Shang Shi)

I still expect zhe new de things come, unknown de, unexpected de (Lu Xun, *Regret for the Past*)

I'm still expecting the arrival of new things, which are unknown and unexpected. (Lu Xun, *Regret for the Past*)

Ex.14 她一手提着竹篮，内中一个破碗，空的。（鲁迅《祝福》）

ta yi shou ti zhe zhu lan, nei zhong yi ge po wan, kong de (Lu Xun, Zhu Fu)

she one hand carries bamboo basket, inside one broken bowl, empty de (Lu Xun, *Blessing*)

She carried a bamboo basket in one hand, and there was a broken empty bowl in the basket. (Lu Xun, *Blessing*)

3.1.2 Major Forms and Features of English Attributive-Headword Structure

In English, adjectives, nouns, pronouns, articles, the possessive case of nouns, participles or participial phrases, infinitives or infinitive phrases, prepositional phrases, adverbs, compound words and clauses could all be used as attributives to modify the headword, which is normally composed of nouns and pronouns (Zhang, 2002; Qiao, 2011). Moreover, English attributives could be placed before or after the headword (Xiong, 1996; Qiao, 2011; Wang, 2013). Similar to the classification of the Chinese attributive-headword structure, the English attributive-headword structure is also classified as the simple and complex ones.

3.1.2.1 Simple English Attributive-Headword Structure

Similar to its Chinese counterpart, the simple English attributive-headword structure also refers to attributive-headword structures with a single modifier. Generally, modifiers of nouns, adjectives, gerunds, pronouns, articles, quantifiers and present participles precede the headword while modifiers of adverbs and past participles follow the headword (Zhang, 2002; Qiao, 2011). However, the position of adjectives is relatively flexible as some adjectives should follow the headword and some can either precede or follow the headword (Qiao, 2011). Examples are listed below.

① Noun + Headword

graduation ceremony; birth certificate; peer group

② Adjective + Headword

fair skin; people alive; mission impossible/impossible mission

③ Gerund + Headword

dancing floor; greeting card; swimming pool

④ Pronoun + Headword

her family; these places; each person

⑤ Article + Headword

a pen; the planet; an ox

⑥ Quantifier + Headword

five hundred pages; dozens of kids; third floor

⑦ Present participle + Headword

flying birds; crying babies; Sleeping Beauty

⑧ Past participle + Headword

kids lost; food left; houses destroyed

⑨ Adverb + Headword

figures below; information above; years back

3.1.2.2 Complex English Attributive-Headword Structure

The complex English attributive-headword structure mainly refers to modifiers of phrasal attributives, clausal attributives and multiple attributives, which are usually placed after the headword (Zhang, 2002).

① Present participial phrase + Headword

The boy standing under the tree is Tom; The girl dancing on the stage is my sister; He greets the girl sitting by the window.

② Past participial phrase + Headword

The lady followed by two students is Mrs. Wang; The boy lost in thought is my brother; The village surrounded by mountains is a historic site.

③ Prepositional phrase + Headword

an issue under discussion; a girl in red; a dress with pockets

④ Infinitive phrase + Headword

The way to go is unpredictable; He is not a man to give up hope; I have a wish to fly like a bird.

⑤ Clause + Headword

The company that my sister works in is state-owned; Mary is a college student who majors in literature; Tom bought a laptop which cost 800 dollars.

⑥ Multiple attributive-headword structure

In the English multiple attributive-headword structure, the headword can also be placed between the attributives.

Ex.15 the adorable niece of mine

Generally, multiple attributives in English follow the order of ① restrictive words (articles, quantifiers, demonstrative pronouns, determiners, etc.) > ② descriptive words (of opinion, size, age, shape, colour, source, material, etc.) > ③ headword > ④ prepositional phrases > ⑤ clauses (Pan, 1997).

Ex.16 ① The ② white ③ jacket ④ with pockets ⑤ that I have been wearing all the time is a gift from my mother .

When it comes to multiple descriptive attributives, the WO mainly goes by ① opinion > ② size > ③ age > ④ shape > ⑤ colour > ⑥ source/country > ⑦ material > ⑧function > ⑨headword (Pan, 1997). The headword is usually placed after the descriptive attributives. But if there is a string of them, then some of the descriptive attributives may follow the headword in the forms of attributive clauses, prepositional phrases or plain adjectives so as to strike a balance between the front and end weight of the sentence/phrase (Jin, 1998). As a result, the specific word order can be adjusted accordingly.

Ex.17a a ② big ③ round ⑥ American ⑦ leather ⑨ sofa

Ex.17b a big round leather sofa from America

Ex.17c an American leather sofa that is big and round

Ex.18a a ① lovely ④ new ⑤ yellow ⑧ decorative ⑨ plate

Ex.18b a yellow decorative plate, lovely and new

Ex.18c a new yellow decorative plate which is lovely

3.1.3 Comparison between Chinese and English Attributive-Headword Structures

This section carries out a comparison between Chinese and English attributive-headword structures in terms of their forms and features, WO, markers, and so on. Both the common and specific characteristics of the two languages are discussed.

3.1.3.1 Comparison of the Composition of the Headword and Attributive Modifiers in Chinese and English Attributive-Headword Structures

In general, the headword in both Chinese and English attributive-headword structures comprises nominals. Nouns, pronouns, adjectives, quantifiers, verbal expressions and prepositional expressions can all function as attributive modifiers in the two languages. However, English has a richer variety of attributive modifiers than Chinese.

Table 3. 1 Comparison of Attributive Modifiers' Composition in Chinese and English

	Chinese	English
Noun + Headword	音乐的魅力 (the appeal of music)	music school
Pronoun + Headword	我的书包 (my backpack)	that place
Gerund + Headword		swimming pool
Adjective + Headword	杰出人物 (outstanding people)	audience present
Quantifier + Headword	五个苹果 (five apples)	one million refugees
Verbal expression + Headword		
① Verb/verbal phrase + Headword	交换生(exchange students); 人来人往的街头 (streets where people are hurrying to and fro)	

② Present participle/ present participial phrase + Headword		dancing girls; men carrying bags
③ Past participle/past participial phrase + Headword		stolen wallets; houses collapsed in the earthquake
④ Infinitive phrase + Headword		dreams to fight for
Preposition/prepositional phrase + Headword	对儿童的关怀 (care for children)	girls in red
Adverb + Headword		information above
Article + Headword		an apple
Clause + Headword	他不回家的原因 (reasons why he didn't go home)	cities where I used to live

It is obvious in Table 3.1 that although verbal expressions can be used as attributive modifiers in both Chinese and English, their forms are different. Chinese uses the root form of the verb while English employs the present participle/participial phrase, past participle/participial phrase and infinitive phrase as modifiers. Besides, gerunds, adverbs and articles are unique to English attributive modifiers in comparison with Chinese.

3.1.3.2 Comparison of the Markers of Chinese and English Attributive-Headword Structures

The Chinese attributive-headword structure features ‘的’ (de), a structural particle, as its formal marker. In contrast, English has various forms to mark the modifying relationship between the attributive and the headword. For instance, ‘of’, ‘’s’ and the single apostrophe can all be used to indicate the possessive relationship between the attributive and the headword; moreover, relative pronouns like ‘that’ and ‘which’ can be used as attributive markers in attributive clauses. And like Chinese, in many cases English needs no formal markers to suggest the modifying relationship in the attributive-headword structure.

In Chinese, the formal marker ‘的’ (de) is placed between the attributive and the headword, and this position also applies to the possessive indicators ‘’s’ and the single apostrophe in English. However, when using ‘of’ to suggest possession, the modifier is placed after the headword, with ‘of’ in between. And in English attributive clauses, relative pronouns like ‘that’ and ‘which’ are positioned after the headword and before the attributive clause.

Ex.19 汤姆的房子 (Tom’s house / the house of Tom); 汤姆住的房子(the house that Tom lives in)

In Chinese, the attributive-headword structure’s meaning may vary with or without the existence of ‘的’ (de).

Ex.20 他 有 点 孩 子脾气。 他 孩子 的脾气 很 好。

ta you dian hai zi pi qi *ta hai zi de pi qi hen hao*

he has a little child temper his child de temper very good

He is a little childish. His child has a good temper.

Ex.21 她 有 很 多 中 国 朋 友。

ta you hen duo zhong guo peng you

she has many China friends

She has many Chinese friends.

英　　国 是　中　　国　的 朋　友。

ying guo shi zhong guo de peng you

Britain is China de friend

Britain is China's friend.

In English, the use of ‘'s' or 'of' in the same attributive-headword structure can also lead to different meanings.

Ex.22 Tom's picture; the picture of Tom

Ex.23 today's newspaper; the newspaper of today

In Ex.22, 'Tom's picture' means that Tom possesses the picture yet he does not necessarily appear in the picture whereas 'the picture of Tom' indicates that Tom is photographed in the picture. In Ex.23, 'today's newspaper' suggests that the newspaper is released today while 'the newspaper of today' can be understood as newspaper at the present day.

3.1.3.3 Comparison of the Word Order between the Headword and Attributive Modifier in Chinese and English Attributive-Headword Structures

Huang and Liao (2002, p.4) propose that Chinese is an analytical language that relies on WO and function words to complete the combination of words and/or phrases. By contrast, English is in transition from an integrated language to an analytical one and its WO can be both fixed and flexible (Wang, 2012, p.20). Word order between the headword and attributive modifiers refers to the position of the headword and the attributive in Chinese and English.

Both Chinese and English attributive-headword structures adopt prepositive modifiers. Namely, the attributive modifier is placed before the headword.

Yet as shown in Table 3.1, English has many modifiers positioned after the headword as well. In brief, although Chinese also uses postpositive attributive modifiers occasionally, Chinese attributive-headword structure mainly features prepositive modifiers while English is characterised by both prepositive and postpositive modifiers.

3.1.3.4 Comparison of the Word Order of Multiple Attributives in Chinese and English Attributive-Headword Structures

Concerning multiple attributives' WO, usually restrictive attributives precede descriptive attributives in Chinese as well as in English, and it is restricted by syntactic structures, language conventions, etc. in both languages.

When a group of attributive modifiers are placed before the headword, the WO in Chinese usually goes by ① possessive nominals > ② locative words/temporal words > ③quantifiers (followed by descriptive attributives) > ④ subject-verb phrases/verbs/verbal phrases/prepositional phrases > ⑤ quantifiers (preceded by restrictive attributives) > ⑥ descriptive modifiers that suggest opinion, age, size, colour, shape, etc. > ⑦ adjectives without '的' (de) and other descriptive nouns > ⑧ headword (Liu et al., 2001). And modifiers with '的' (de) are often placed before those without '的' (de).

By contrast, multiple attributives in English follow the order of ① articles > ② quantifiers > ③ pronouns > ④ descriptive attributives that suggest opinion, size, age, shape, colour, etc. > ⑤ headword > ⑥ prepositional phrases > ⑦ clauses (Pan, 1997).

Ex.24 妈 妈 上 周 买 的一 张 全 新 的绿色 圆 沙 发

ma ma shang zhou mai de yi zhang quan xin de lü se yuan sha fa

mom last week bought de one new de green round sofa

one brand-new round green sofa that mom bought last week

For multiple descriptive attributives, the order in Chinese usually goes by ① opinion > ② age > ③ size > ④ source/country > ⑤ colour > ⑥ shape > ⑦ material > ⑧ function > ⑨ headword (Liu et al., 2001), whereas English generally follows ① opinion > ② size > ③ age > ④ shape > ⑤ colour > ⑥ source/country > ⑦ material > ⑧ function > ⑨ headword (Pan, 1997).

Ex.25 一 张 崭 新 的 进 口 红 木 桌

yi zhang zhan xin de jin kou hong mu zhuo

a new de imported red wooden table

a new red imported wooden table

However, it should be noted that the semantic sequencing of multiple adjectives or other descriptive words can be adjusted according to varying communicative needs in both Chinese and English (Pan, 1997).

3.2 Adverbial-Headword Structure

Another principal structure in Chinese and English is the adverbial-headword construction, which comprises the adverbial and the headword. This section describes the grammatical constituent and position of the adverbial and headword, the adverbial marker's features, the form of the adverbial-headword construction and the WO of multiple adverbials. The Chinese adverbial-headword structure is elaborated first; then its English counterpart is discussed, followed by the comparative analysis of the Chinese and English adverbial-headword construction.

3.2.1 Major Forms and Features of Chinese Adverbial-Headword Structure

In the Chinese adverbial-headword structure, the adverbial is used to modify or restrict the headword. Normally, adverbials are placed between the subject and the headword, and they are usually composed of adjectives, adverbs, temporal and locative nouns, prepositional phrases, etc. (Liu, 1983; Tiee, 1986). In some cases, there is an adverbial marker '地' (de) between the adverb and the headword. Interestingly, Chinese adverbials, especially adverbials of time and location, can also be placed at the head of a sentence, making it more prominent and a semantic emphasis of the sentence.

Ex.26a 在 中 国， 红 色 是 喜 庆 的 颜 色。

zai zhong guo, hong se shi xi qing de yan se

in China, red is lucky de colour

In China, red is a lucky colour.

Ex.26b 红 色 在 中 国 是 喜 庆 的 颜 色。

hong se zai zhong guo shi xi qing de yan se

red in China is lucky de colour

Red is a lucky colour in China.

Ex.27a 1978 年， 中 国 开 始 实 行 改 革 开 放。

1978 nian, zhong guo kai shi shi xing gai ge kai fang

1978 year, China started implementing reform and openness

In 1978, China started to reform and open up.

Ex.27b 中 国 1978 年 开 始 实 行 改 革 开 放。

Zhong guo 1978 nian kai shi shi xing gai ge kai fang

China in 1978 year started implementing reform and openness

China started to reform and open up in 1978.

In Ex.26a and Ex.27a, '在中国' and '1978 年' are placed at the prominent sentence-initial position, stressing the location and time respectively, while in

Ex.26b and Ex.27b, these two adverbials are placed after the subject, leading to a difference in semantic emphasis.

Moreover, in literary works, other kinds of adverbials may also be placed before the subject and headword for rhetorical purposes.

Ex.28 傻子似地，他自己笑了。(老舍《骆驼祥子》)

sha zi shi de ta zi ji xiao le (Lao She, Luo Tuo Xiang Zi)

idiot likely de, he himself laughed le (Lao She, *Rickshaw Boy*)

Like an idiot, he laughed. (Lao She, *Rickshaw Boy*)

Ex.29 永远，它矗立在此。(余光中《塔》)

yong yuan, ta chu li zai ci (Yu Guangzhong, Ta)

forever, it stands in here (Yu Guangzhong, *Pagoda*)

Permanently, it stands erect here. (Yu Guangzhong, *Pagoda*)

In Ex.28, '傻子似地' (like an idiot) is a combination of noun + comparative auxiliary + de. It is positioned at the beginning of the sentence to give prominence to the subject's idiot-like characteristics. In Ex.29, '永远' is an adverb preceding the sentence, highlighting the permanent existence of the subject and the author's own affection.

As for the headword, Fang (1992) points out that it normally consists of verbs, adjectives and verbal phrases, but occasionally nominal phrases and quantifiers may also function as headwords as a result of the omission of the verb.

Ex.30 我 们 刚 好 四个。

wo men gang hao si ge

we just four

There are exactly four of us.

Ex.31 这　件　外　套　才　二　十　美　元。

zhe jian wai tao cai er shi mei yuan

this coat only twenty dollars

This coat only costs 20 dollars.

In Ex.30, '刚好' (exactly) is an adverb modifying the headword '四个' (four + Chinese measure word), before which the omitted verb can be '是' (are), i.e. '是四个' (are four). And in Ex.31, '才' (only/just) is an adverb modifying the headword '二十美元' (twenty dollars), before which the omitted verb can be '卖' (sell), i.e. '卖二十美元' (sell for 20 dollars).

3.2.1.1 Simple Chinese Adverbial-Headword Structure

The simple Chinese adverbial-headword structure consists of monomial adverbials, which can be a word or a set phrase. Based on Fang's (1992, pp.217-225) study, the specific forms of the simple Chinese adverbial-headword structure are as follows.

① Adjective (+ de '地') + Headword

详细解释 (explain in detail); 乐观面对 (think positively); 安安静静地离开 (leave quietly)

② Adverb (+ de '地') + Headword

非常地精彩 (very wonderful); 经常迟到 (always late); 立刻赶到 (arrive immediately)

③ Temporal noun + Headword

我　周　一　休息；	她去　年　出　国　了。
wo zhou yi xiu xi;	*ta qu nian chu guo le*
I Monday rest;	she last year went abroad le
I have a day off on Monday;	She went abroad last year.

④ Locative noun + Headword

咱 们 伦 敦 见； 他 们 海 边 溜 达 去了。

zan men lun dun jian; *ta men hai bian liu da qu le*

we London see; they seaside stroll go le

See you in London; They have gone to stroll by the seaside.

⑤ Quantifier that contains verbal measure words, reduplicative quantifiers, etc. (+ de '地') + Headword

一口喝完 (drink up at one gulp)； 三三两两地走了 (leave by twos and threes)

⑥ Nouns with comparative auxiliaries (+ de '地') + Headword

他 木 偶 似 地 站 着； 老 人 家 孩 子 般 笑 了。

ta mu ou shi de zhan zhe; *lao ren jia hai zi ban xiao le*

he puppet likely stood zhe; old man child likely laughed le

He stood like a puppet; The old man laughed like a child.

⑦ Volitive auxiliary + Headword

今 天 可 能 下 雨； 她 肯 定 在 家。

jin tian ke neng xia yu; *ta ken ding zai jia*

today may rain; she must at home

It may rain today; She must be at home.

⑧ Set phrase + de (地) + Headword

他 指 桑 骂 槐 地 数 落 了 我。

ta zhi sang ma huai de shu luo le wo

he pointed at the mulberry scolded the locust de rebuked le me

He scolded me by reviling others.

3.2.1.2 Complex Chinese Adverbial-Headword Structure

The complex Chinese adverbial-headword structure comprises verbal/prepositional phrase adverbials and multiple adverbials. According to Fang (1992) and Liu (1983), the specific forms of complex Chinese adverbial-headword structures primarily include the following:

① Prepositional phrase + Headword

我 们 在 二 楼 吃 饭； 我 从 北 京 出 发。

wo men zai er lou chi fan; *wo cong bei jing chu fa*

we on the second floor dine; I from Beijing depart

We dine on the second floor; I depart from Beijing.

② Verbal phrase + Headword

他语 气 坚 定 又 自信 地 发 表 了 演 讲。

ta yu qi jian ding you zi xin de fa biao le yan jiang

he tone firm and confident de deliver le speech

He delivered the speech in a firm and confident tone.

③ Multiple adverbials + Headword

When there are multiple adverbials denoting time, location or manner in a sentence, the order in Chinese normally follows ① subject > ② adverbials of time > ③ adverbials of location > ④ adverbials of manner > ⑤ predicate verb (Liu, 1983).

Ex.32 ①她 ②上周 ③在海边 ④用沙子 ⑤堆了一座城堡。

ta shang zhou zai hai bian yong sha zi dui le yi zuo cheng bao

she last week at the seaside used sand built le a castle

She built a castle with sand at the seaside last week.

Regarding multiple adverbials of location and time, like its attributive counterpart, it also abides by the Whole-Before-Part Principle (Hu, 1995; Jiang, 2009). For spatial expressions, the sequence is from large to small, far to near, and wide to narrow; for temporal expressions, the order is from the largest chunk of time to the smallest, in the year-month-week-day-hour sequence (Liu, 1983).

Ex.33 玛丽在 广 东 省 广 州 市白云区 工作。

ma li zai guang dong sheng guang zhou shi bai yun qu gong zuo

Mary at Guangdong province Guangzhou city Baiyun district works

Mary works in the Baiyun District, Guangzhou, Guangdong Province.

Ex.34 这 位 伟 大的 作 家于1890 年 4 月 15 日 出 生.

zhe wei wei da de zuo jia yu 1890 nian 4 yue 15 ri chu sheng

this great de writer on 1890 April 15 born

This great writer was born on 15 April 1890.

3.2.2 Major Forms and Features of English Adverbial-Headword Structure

In English, adverbials can be placed before or after the headword and they mainly comprise adverbs, adjectives, prepositional phrases, participles/participial phrases, infinitive phrases and clauses (Zhang, 2002). In addition, some nouns/nominal phrases can also function as adverbials (Li, 1997; Zhang, 2002; Liu, 2012), and the headword usually comprises verbs, adjectives or verbal phrases. There are no obvious adverbial markers in English. Like its Chinese counterpart, the English adverbial-headword structure is also classified into the simple and complex types.

3.2.2.1 Simple English Adverbial-Headword Structure

The simple English adverbial-headword structure includes monomial adverbial modifiers, being one word or a set phrase, and they can precede or follow the headword.

① Adverb + Headword

Please speak loudly; He is always late; It rains heavily.

② Adjective + Headword

She said nothing but lay still; Everyone is born equal; He stood motionless, feeling very confused.

③ Noun/Set phrase + Headword

These building are centuries old; The Great Wall is world famous; The government should serve the people heart and soul.

④ Participle + Headword

He just looked at me, smiling; She left the house, crying; The boy stared at the toy, enthralled.

3.2.2.2 Complex English Adverbial-Headword Structure

The complex English adverbial-headword structure mainly consists of phrasal adverbials and multiple adverbials, with the headword preceding or following the adverbial.

① Prepositional phrase + Headword

She greets me with a smile; Lisa will leave on Friday; Tom and Mary met each other in France.

② Infinitive phrase + Headword

My mother works hard to support the family; To be honest, I disagree with you; I am sorry to trouble you again.

③ Participial phrase + Headword

He came in, looking around the room; She entered the classroom, followed by two students; Driven by profits, some companies use child labour.

④ Nominal phrase + Headword

I shall stay another three hours; The president has worked all his life for the country; Please wait a minute.

⑤ Clause + Headword

Next time you come in, please knock on the door; No matter how hard he works, he earns little; All things are difficult before they are easy.

⑥ Multiple adverbials + Headword

When there are multiple adverbials denoting time, location and manner in a sentence, the order in English could be ① subject > ② predicate verb > ③ adverbials of manner > ④ adverbials of location > ⑤ adverbials of time, or ① subject > ② adverbials of manner > ③ predicate verb > ④ adverbials of location > ⑤ adverbials of time (Zhang, 2015, p.40).

Ex.35 ① The little girl ② fed the stray dog ③ with her own breakfast ④ at the street corner ⑤ this morning.

Ex.36 ① Tom ② secretly ③ decided to propose to Mary ④ at the restaurant ⑤ on Tuesday.

Regarding multiple adverbials of location and time, English follows the Part-Before-Whole Principle (Jiang, 2009), with the order of spatial expressions developing from small to large, near to far, and narrow to wide; and the temporal expression is in hour-day-week-month-year order, particularly in British English.

Ex.37 Mary was born on 2nd May, 1992.

Ex.38 This restaurant is located at the Youth Street, Wuhua District, Kunming, Yunnan province, China.

However, in American English the temporal WO follows month, day and year.

Ex.39 Harry and Megan got married on May 19th, 2018.

3.2.3 Comparison Between Chinese and English Adverbial-Headword Structures

This section makes a comparison between the Chinese and English adverbial-headword structures in accordance with their forms and features, WO, and markers.

3.2.3.1 Comparison of the Composition of the Headword and Adverbial Modifiers in Chinese and English Adverbial-Headword Structures

For both Chinese and English adverbial-headword structures, the headword normally consists of verbs, adjectives and verbal phrases. The Chinese adverbial modifiers are usually composed of adjectives, adverbs, temporal and locative nouns, prepositional phrases, etc., whereas English adverbial modifiers mainly consist of adverbs, infinitive phrases, prepositional phrases, clauses, and so on. Table 3.2 below reveals that both Chinese and English adverbial-headword structures have various types of adverbial modifiers.

Table 3. 2 Comparison of Adverbial Modifiers' Composition in Chinese and English

	Chinese	English
Adjective + Headword	坦然面对 (confront calmly)	stand motionless
Adverb + Headword	极其壮观 (extremely spectacular)	quite interesting
Temporal noun + Headword	下个月离开 (leave next month)	return home next week
Locative noun + Headword	学校见！(See you at school!)	world famous
Volitive auxiliary + Headword	可能走了 (may have left)	
Verbal set phrase + Headword	来来回回地游荡 (wander back and forth)	
Prepositional phrase + Headword	以海鲜闻名 (famous for the seafood)	dine at home
Quantifier phrase or quantifier that contains verbal measures or reduplicative quantifiers + Headword	一拳打倒 (downed by one blow)； 三天两头地下雨 (rain frequently)； 一个一个离开 (leave one by one)	five miles away
Nouns with comparative auxiliaries + Headword	木偶般站着 (stand like a puppet)	
Participle/Participial phrase + Headword		He greeted me, smiling; She came in, followed by two students.
Clause + Headword		Next time you come in, please knock on the

		door.
Infinitive phrase + Headword		I am sorry to bother you again.

3.2.3.2 Comparison of the Markers of Chinese and English Adverbial-Headword Structures

The Chinese adverbial-headword structure features ‘地’ (de) as the adverbial marker, which is placed between the adverbial and the predicate. By contrast, the English adverbial-headword structure has no typical adverbial marker except for the inflectional change of some adjectives, such as ‘happy’ transforming into ‘happily’.

And for Chinese multiple adverbials, ‘地’ (de) is usually placed after the last adverbial.

Ex.40 他 镇 定 自 若、不 慌 不 忙 地 走 向 讲 台。

ta zhen ding zi ruo, bu huang bu mang de zou xiang jiang tai

he calmly, leisurely de walks to the platform

He walks to the platform calmly and leisurely.

3.2.3.3 Comparison of the Word Order Between the Headword and Adverbial Modifier in Chinese and English Adverbial-Headword Structures

As explained in the section of the attributive-headword structure, WO between the headword and adverbial modifiers here also refers to the position of the headword and the adverbial in Chinese and English.

It can be easily observed in Table 3.2 that adverbials can only precede the headword in Chinese adverbial-headword structure, whereas adverbials in English can precede or follow the headword.

3.2.3.4 Comparison of the Word Order of Multiple Adverbials in Chinese and English Adverbial-Headword Structures

Similar to multiple attributives, for multiple adverbials in both Chinese and English, restrictive adverbials are usually positioned ahead of descriptive adverbials. Regarding Chinese adverbial-headword structures in sentences, when there are multiple adverbials denoting time, location or manner, the WO normally follows ① subject > ② adverbials of time > ③ adverbials of location > ④ adverbials of manner > ⑤ predicate verb (Liu, 1983). In comparison, English observes the order of ① subject > ② predicate verb > ③ adverbials of manner > ④ adverbials of location > ⑤ adverbials of time, or ① subject > ② adverbials of manner > ③ predicate verb > ④ adverbials of location > ⑤ adverbials of time (Zhang, 2015).

Nevertheless, Huang and Liao (2002) claim that the WO of Chinese multiple adverbials is a complex issue as it is not fixed and varies with the logic relation as well as semantic needs of the predicate part. Generally, Chinese adverbial-headword construction abides by the Whole-Before-Part Principle while English follows the Part-Before-Whole Principle (Jiang, 2009).

Ex.41 他于 2018 年 6月 来 到 四 川 省 成 都 市 工 作。

ta yu 2018 nian 6 yue lai dao si chuan sheng cheng du shi gong zuo

he in 2018 June came to Sichuan Province Chengdu City work

He came to Chengdu, Sichuan Province to work in June, 2018.

3.3. Verb-Complement Structure

The verb-complement structure, also called predicate-complement structure in sentences, is a significant grammatical construction in Chinese, yet it has no exact equivalent in English. Therefore, Chinese complements can be a great challenge for English-speaking learners (Wang, 2020). It has to be pointed out that in Chinese, the 'verb' in 'verb-complement structure' also includes adjectives that function as verbs. The complement is always placed after the verb, explicating the verb in terms of result, degree, direction, state, potentiality, quantity, purpose, location, target, etc. (Fang, 1992, p.239; Lu, 1997, p.192). Adjectives, adverbs, verbal phrases, prepositional phrases and quantifier phrases can all function as complements (Fang, 1992, p.239). Nevertheless, English has no verb-complement structure, and the so-called 'complement' in English sentences is mainly used to modify the subject or the object instead of the predicate. This gap may make it difficult for learners to apply the verb-complement structure in Chinese.

3.3.1 Major Forms and Features of Chinese Verb-Complement Structure

For Chinese verb-complement structure, '得' (de) is the complement marker. The main grammatical constituents of Chinese complements include (Fang, 1992, pp.244-273):

① Verb (+ de '得') + Verbal complement

她 被 骂 哭了；	汤 姆 累 得 晕 倒 了。
ta bei ma ku le;	*tang mu lei de yun dao le*
she bei scolded cried le;	Tom tired de fainted le
She was scolded to tears;	Tom was so tired that he fainted.

② Verb + Quantifier complement

我 睡了 七 小 时；	这 书 我 看了 三 遍 了。
wo shui le qi xiao shi;	*zhe shu wo kan le san bian le*
I slept le seven hours;	this book I read le three times le

I slept for seven hours; I have read this book for three times.

③ Verb + Prepositional phrase complement

玛丽 出 生 在 英 格 兰； 车 子停 在 后 院 里。

ma li chu sheng zai ying ge lan; *che zi ting zai hou yuan li*

Mary borne in England; car parks in the backyard

Mary was born in England; The car parks in the backyard.

④ Verb (+ de '得') + Adjectival complement

她 嗓 子 都 哭哑了； 玛丽 长 得 高 高 瘦 瘦。

ta sang zi dou ku ya le; *ma li zhang de gao gao shou shou*

her throat cried hoarse le; Mary grows de tall and slim

She cried herself hoarse; Mary is tall and slim.

⑤ Verb (+ de '得') + Adverbial complement

这 儿 冷 得 很； 夜 空 美 极了。

zhe er leng de hen; *ye kong mei ji le*

here cold de very much; night sky beautiful extremely le

It's very cold here; The night sky is breathtaking.

3.3.1.1 Types of Chinese Complements

According to Lu (1997) and Zhang (2010), semantically speaking, Chinese complements can be classified into seven types: complements of result, direction, degree, state, quantity, potentiality and time/location. Some verb-complement structures have to place the complement marker '得' (de) in between, such as complements of state and some verb-complement structures need no complement marker, such as complements of degree and quantity. As the Chinese verb-complement structure finds no counterpart in English, the comparability is not evident. Therefore, some

error examples are given to further clarify the features of Chinese verb-complement structures and the difficulties students have when applying this structure.

(1) For complements suggesting results, there is no '得' (de) between the verb and the complement. Adjectives and some verbs are usually used as complements to serve this function.

别 拼 错 我 的 名 字；	请 站 直。
bie pin cuo wo de ming zi;	*qing zhan zhi*
not spell wrong I de name;	please stand straight
Don't misspell my name;	Please stand up straight.

Regarding resultative complements, students may make mistakes like complement omission, complement redundancy and complement misplacement.

Ex.42a *[2]他 打 招 呼 就 走 了。(Missing complement)

**ta da zhao hu jiu zou le*

*he made call and left

Ex.42b 他 打 完 招 呼 就 走 了。

ta da wan zhao hu jiu zou le

he made call and left le

He left after saying hello.

Ex.43a *我 把 她 的 话 记 住 在 心 里。(Redundant complement)

**wo ba ta de hua ji zhu zai xin li*

*I ba her de words remember in mind

---

[2] The star symbol * means that the expression/sentence after is incorrect.

Ex.43b 我 把 她 的 话 记 在心 里。

wo ba ta de hua ji zai xin li

I ba her de words remember in mind

I bear her words in mind.

Ex.44a *汤 姆 理发 完 就 去 看 了 电 影。(Misplaced complement)

**tang mu li fa wan jiu qu kan le dian ying*

*Tom cut hair and went to see le movie

Ex.44b 汤 姆 理 完 发 就 去 看 了 电 影。

tang mu li wan fa jiu qu kan le dian ying

Tom cut hair and went to see le movie

Tom went to the movies after a haircut.

(2) For complements suggesting direction, there is no '得' (de) between the verb and the complement, and this kind of complement is usually composed of directional verbs like '来' (lai [come]) and '去' (qu [go]).

他 跑 去 拿 书；	她 带 来 两 本 杂 志。
ta pao qu na shu;	*ta dai lai liang ben za zhi*
he ran qu get book;	she brought lai two magazines
He ran to get his book;	She brought two magazines with her.

Errors concerning directional complements mainly lie in confusion between '来' (lai) and '去' (qu), inappropriate use of '起来' (qi lai [up]), etc.

Ex.45a *他 起 床 时 太 阳 已 经 出 去了。(Misuse of '去')

**ta qi chuang shi tai yang yi jing chu qu le*

*he gets up when sun has exited qu le

Ex.45b 他 起 床 时 太 阳 已 经 出 来 了。

ta qi chuang shi tai yang yi jing chu lai le

he gets up when sun has exited lai le

The sun has already come out when he gets up.

Ex.46a *我 明 天 就 回 去 家。(Redundant or misplaced '去')

**wo ming tian jiu hui qu jia*

*I tomorrow return qu home

Ex.46b 我 明 天 就 回 家(去)。

wo ming tian jiu hui jia (qu)

I tomorrow return home (qu)

I'll go home tomorrow.

Ex.47a *观 众 立刻 鼓 起 来 掌。(Misplaced object)

**guan zhong li ke gu qi lai zhang*

*audience immediately claps qi lai hands

Ex.47b 观 众 立刻 鼓 起 掌 来。

guan zhong li ke gu qi zhang lai

audience immediately claps qi hands lai

The audience applauded immediately.

(3) For complements indicating potentiality, there are three ways of presentation. The first way is to use '得' (de) or '不' (bu [not]) between the verb and the complement.

我 吃 不 完;	我 听 得 懂。
wo chi bu wan;	*wo ting de dong*
I eat not up;	I hear de understand

I cannot eat it up; I can understand.

WO errors include:

Ex.48a *天 黑 前 他 们 恐 怕 不 赶 到 家。(Misplaced '不')

**tian hei qian ta men kong pa bu gan dao jia*

*sky dark before they fear not get home

Ex.48b 天 黑 前 他 们 恐 怕 赶 不 到 家。

tian hei qian ta men kong pa gan bu dao jia

sky dark before they fear get not home

They may not be able to get home before the sunset.

The second way to suggest potentiality is to use '得' (de) or '不得' (bu de [not de]) after the verb, which usually comprises monosyllable verbs.

这 种 东 西 吃 得; 那 种 地 方 去 不 得。

zhe zhong dong xi chi de; *na zhong di fang qu bu de*

this kind of stuff eat de; that kind of place go not de

This kind of stuff is edible; You must not go to that kind of place.

Errors include:

Ex.49a *这 个 瓷 花 瓶 触 摸 得。(Inappropriate use of '触摸')

**zhe ge ci hua ping chu mo de*

*this porcelain vase touch de

Ex.49b 这 个 瓷 花 瓶 摸 得。

zhe ge ci hua ping mo de

this porcelain vase touch de

This porcelain vase is touchable.

The third way to indicate potentiality is to use ‘得了’ (de liao [can]) or ‘不了’ (bu liao [cannot]) after verbs that can take objects.

这 个 遥 控 器 用 不 了； 我 应 付 得 了。

zhe ge yao kong qi yong bu liao; *wo ying fu de liao*

This remote-controller use not liao; I manage de liao

This remote-controller doesn’t work; I can manage this.

Errors include:

Ex.50a *他 的 脚 有 伤， 还 跑 步 得 了 吗？(Misplaced complement)

**ta de jiao you shang, hai pao bu de liao ma*

*his de feet has wound, still run step de liao ma

Ex.50b 他 的 脚 有 伤， 还 跑 得 了 步 吗？

ta de jiao you shang, hai pao de liao bu ma

his de feet have wound, still run de liao step ma

Can he run with injured feet?

(4) For complements suggesting quantity, they are mainly composed of quantifiers, namely numerals + nouns/measure words. There are three types of them, which are complements of frequency, complements of time duration and complements of comparative quantity (Lu, 1997).

这 个 我 看 了 三 遍； 我 们 等 了 你 五 个 小 时；

zhe ge wo kan le san bian; *wo men deng le ni wu ge xiao shi*

this I read le three times; we waited le you five hours;

I read this for three times; We have been waiting for you for five hours;

我 哥 哥 比 我 大 五 岁。

wo ge ge bi wo da wu sui

my brother compares me older five years

My brother is five years older than me.

Errors include:

Ex.51a *我 看 了 电 视 两 小 时。(Misplaced complement)

**wo kan le dian shi liang xiao shi*

*I watched le TV two hours

Ex.51b 我 看 了 两 小 时 电 视。

wo kan le liang xiao shi dian shi

I watched le two hours TV

I watched TV for two hours.

Ex.52a *他 不 确 定 他 多 长 时 间 睡 了。(Misplaced complement)

**ta bu que ding ta duo chang shi jian shui le*

*He not sure he how long time slept le

Ex.52b 他 不 确 定 他 睡 了 多 长 时 间。

ta bu que ding ta shui le duo chang shi jian

he not sure he slept le how long time

He is not sure how long he has slept for.

(5) For complements indicating state, generally the auxiliary 'de' (得) is placed between the verb and the complement as a complement marker.

她 跑 得 很 快; 孩 子 们 睡 得 香。

ta pao de hen kuai; *hai zi men shui de xiang*

she runs de very fast; children sleep de soundly

She runs fast; Children sleep soundly.

Errors include:

Ex.53a *她 的 字写 很 漂 亮。(Omission of '得')

ta de zi xie hen piao liang

*her de characters write very beautiful

Ex.53b 她 的 字 写 得 很 漂 亮。

ta de zi xie de hen piao liang

her de characters write de very beautiful

Her handwriting is very good.

Ex.54a *汤 姆 学 习得 很 用 功。(Inappropriate use of the verb[3])

**tang mu xue xi de hen yong gong*

*Tom studies de very hard

Ex.54b 汤 姆 学 得 很 用 功。

tang mu xue de hen yong gong

Tom studies de very hard

Tom studies hard.

(6) Complements can also indicate the degree of the verb part.

孩 子 们 高 兴 极了; 这 里热 得 很 。

[3] According to Zhang (2010), some disyllable verbs cannot be followed by complements of state that explicate the agent or the patient, such as '学习', '工作', '锻炼', etc., and it is more common to see monosyllable verbs being followed by this kind of complements of state.

hai zi men gao xing ji le; *zhe li re de hen*

children happy extremely le; here hot de very much

The children are overjoyed; It's very hot here.

Errors include:

Ex.55a *他 病 得 很。(Inappropriate use of the complement)

**ta bing de hen*

*he ill de very much

Ex.55b 他 病 得 厉害。

ta bing de li hai

he ill de severely.

He is seriously ill.

Ex.56a *他 每 天 工 作 累得 多。(Inappropriate use of the complement)

**ta mei tian gong zuo lei de duo*

*he every day works tired de much

Ex.56b 他 每 天 工 作 累得 要 命。

ta mei tian gong zuo lei de yao ming

he every day works tired de killing

He is exhausted from work every day.

(7) Complements suggesting time and location are mainly composed of prepositional phrases.

她 出 生 在 美 国; 这 本 书 写 于 1994 年。

ta chu sheng zai mei guo; *zhe ben shu xie yu 1994 nian*

she born in the US; this book written in 1994 year

She was born in the US; This book was written in 1994.

Errors include:

Ex.57a *这 首 歌曲 创 作 在 2008 年。(Misuse of '在')

*zhe shou ge qu chuang zuo zai 2008 nian

*this song created in 2008.

Ex.57b 这 首 歌曲 创 作 于 2008 年。

zhe shou ge qu chuang zuo yu 2008 nian

this song created in 2008

This song was created in 2008.

3.3.2 Major Forms and Features of English Complements

English complements are not equivalent to the Chinese one and they are mainly used to complement the subject and object. Nouns, infinitive structures, adverbs, etc. can be used as object complements while the subject complements usually involve the subject -- linking verb -- predicative structure. The subject complement is located after the linking verb and the object complement is placed after the object.

Ex.58 Our Chinese teacher was elected as the new principal at our school. (Subject complement)

Ex.59 Lisa calls her husband 'Jack of all trades'. (Object complement)

3.4. Verb-Object Structure

As both Chinese and English are SVO languages (Greenberg, 1963; Xing, 1993; Sun, 1996; Pan, 1997; Jiang, 2009; Kang, 2015), they share the same V-O word order in the verb-object structure, for example, '他学习中文' (He learns Chinese), and '我有一个妹妹' (I have a younger sister). This similarity makes it easier for L2 learners to grasp the verb-object construction (Peng and Peng, 2021). Therefore, this section mainly explores the ba structure, a peculiar Chinese sentence pattern that involves the object-verb WO and proves to be a difficult structure for many L2 learners (Wang, 2020).

3.4.1 Chinese Ba Construction

In the aspect of syntax, Chinese allows for variation in the permutation of verb and object, namely the object-verb (OV) WO, and the Chinese ba/disposal construction is a typical representation of the OV structure (Tiee, 1986; Xing, 2006). Ba (把) could be regarded as a verb meaning to deal with, manipulate or handle something (Lü, 1999, p.48; Bender, 2000, p.126). However, in the ba construction, 'ba' is a preposition (Mei, 1972; Tiee, 1986; Li, 1990), and it can lead the object of the verb to a prior position, producing the SOV structure.

Ex.60 The VO structure: 我 扫 了地。

wo sao le di

I swept le floor

I swept the floor.

The Ba structure: 我 把 地 扫 了。

wo ba di sao le

I ba floor swept le

I swept the floor.

Ex.61 The VO structure: 他 打 开 窗 户。

ta da kai chuang hu

he opened window

He opened the window.

The Ba structure: 他 把 窗 户 打 开。

ta ba chuang hu da kai

he ba window opened

He opened the window.

Nevertheless, the object of ‘ba’ is not always the object of the verb.

Ex.62 他 把 杯 子 装 上 水。

ta ba bei zi zhuang shang shui

he ba cup fill up water

He filled the cup with water.

In this example, the noun ‘杯子’ (cup) after ‘ba’ is not the object of the predicate verb ‘装上’ (fill) but an object affected by the action. Syntactically speaking, the ba phrase is a prepositional phrase that modifies the verbal part as an adverbial.

As a complex syntactic structure in Chinese, there are some constraints on developing the ba construction.

Generally, the verb in the ba construction should be a transitive verb and imply the meaning of disposal (Tiee, 1986, p.285).

Ex.63a *我 把 作 业 完 毕了。

**wo ba zuo ye wan bi le*

*I ba assignment finished le

This ba sentence is not acceptable as the verb ‘完毕’ (to finish) is an intransitive verb which could not be followed by an object. The appropriate construction could be:

Ex.63b 我 把 作 业 做 完 了。

wo ba zuo ye zuo wan le

I ba assignment finished le

I finished the assignment.

With respect to the verb of the ba construction, usually there are supplementary elements like aspect particles or adverbs before or after the verb (Tiee, 1986, p.285).

Ex.64a *我 把 门 锁。

**wo ba men suo*

*I ba door lock

The right sentence could be:

Ex.64b 我 把 门 锁 上 了。

wo ba men suo shang le

I ba door locked up le

I locked the door.

But when it comes to verse or verbs that contain complements, the restriction can be lifted.

Ex.65 夫 妻 双 双 把 家 还

fu qi shuang shuang ba jia huan

the husband and the wife both ba home return

The husband and the wife return home free.

Ex.66 把 任 期 延 长

ba ren qi yan chang

ba term of office extend long

to extend the term of office

As the verb of the ba construction generally involves the meaning of disposal, thus psycho-verbs, linking verbs, directional verbs, etc. could not be adopted as predicate verbs in the ba sentence (Xing, 2006, p.145).

Ex.67a *我 把 成 功 希 望。

**wo ba cheng gong xi wang*

*I ba success wish

Ex.68a *我 把 英 国 去。

**wo ba ying guo qu*

*I ba the UK go

Ex.69a *北 京 把 首 都 是。

**bei jing ba shou du shi*

*Beijing ba capital is

The right sentences should be:

Ex.67b 我 希 望 我 能 成 功。

wo xi wang wo neng cheng gong

I hope I can succeed

I wish I can succeed.

Ex.68b 我 去 了 英 国。

wo qu le ying guo

I wen le the UK

I went to the UK.

Ex.69b 北 京 是 中 国 的 首 都。

bei jing shi zhong guo de shou du

Beijing is China de capital

Beijing is the capital of China.

Usually, volitive auxiliaries and negation words cannot be put between the ba phrase and the verb, but should precede ba (Tiee, 1986, p.295).

Ex.70a *她 把 钱 愿 意 捐 给 山 区。

**ta ba qian yuan yi juan gei shan qu*

*she ba money willing donate to mountain area

Ex.71a *他 把 这 件 事 没 有 告 诉 我。

**ta ba zhe jian shi mei you gao su wo*

*He ba this matter not tell me

The right sentences should be:

Ex.70b 她 愿 意 把 钱 捐 给 山 区。

ta yuan yi ba qian juan gei shan qu

she willing ba money donate to mountain area

She is willing to donate the money to the mountain areas.

Ex.71b 他 没 有 把 这 件 事 告 诉 我。

ta mei you ba zhe jian shi gao su wo

he not ba this matter tell me

He didn’t tell me this matter.

As for English, the verb-object construction represents its basic V-O word order, and it seldom has the object-verb pattern. Therefore, the Chinese ba sentence is a gap that may pose a challenge to English-speaking students.

3.5. Subject-Verb Structure

As noted before, Chinese and English observe the subject-verb-object (SVO) WO. The subject-verb structure is common to both languages, for instance, ‘我知道’ (I know) and ‘她哭了’ (she cried). This structure, therefore, seems to be relatively easier for English-speaking learners to acquire (Peng and Peng, 2021).

Fang (1992, p.144) claims that in Chinese sentences, a message that needs to be conveyed first is placed at the sentence-initial position as a topic, functioning as a subject, and the latter part, namely the predicate, is a comment about the topic. From a syntactic perspective, this study adopts the term ‘subject-verb structure’ to signify the grammatical items and WO features of Chinese sentences/phrases whereas the ‘topic-comment structure’ is treated as a particular pattern of the subject-verb structure because it only presents the general structural feature of Chinese, failing to manifest the grammatical relation or WO feature.

According to Zhang (2010), the verb in Chinese subject-verb structure involves not only verbal words but also adjectival words (like ‘经济繁荣’ [the economy is prosperous]), nominal words (like ‘今天星期一’ [today is Monday]) and subject-verb phrases (like ‘他身无分文’ [he is penniless]). Apart from the normal subject-verb WO, in some cases the verb can also precede the subject in Chinese and English, forming an inverted sentence, and this section mainly introduces the inverted subject-verb structure in both languages.

3.5.1 Inverted Chinese Subject-Verb Structure

In Chinese, the inverted subject-verb structure usually occurs in spoken and literary language and is often adopted in interrogative sentences, imperative sentences and exclamatory sentences. Generally, they are used for emphatic or rhetorical purposes and there is a pause between the predicate and the subject (Zhu, 1983).

Ex.72 去 哪儿啊，你？

qu na er a, ni

go where, you

Where are you going?

Ex.73 请 保 持 安静，同 学 们！

qing bao chi an jing, tong xue men

please keep quiet, class

Boys and girls, please keep quiet!

Ex.74 终 于 过 去了，这 难熬 的一 天！

zhong yu guo qu le, zhe nan ao de yi tian

finally passed le, this tough de one day

Finally, this hard day was over!

3.5.2 Inverted English Subject-Verb Structure

Actually, inversion is much more widely used in English than in Chinese (Jin, 2011). Apart from rhetorical purposes, inverted sentences are also used to balance the sentence structure as English tends to put the sentence focus in the end part. If the subject part is too long, then the predicate part will be placed at the front to avoid an overweight head part (Zhang, 2002).

Ex.75 On the ground laid some colourful umbrellas available to anyone who forgot to bring their own.

Ex.76 Inscribed on the wall are the names of villagers who sacrificed their lives in the war.

3.5.3 Comparison Between Chinese and English Subject-Verb Structures

Though the subject-verb structure exists in both Chinese and English, it sees some differences between the two languages. First of all, subject is a necessary part in English sentences while the absence of subject is

relatively common in Chinese, particularly in the colloquial context. Therefore, English is regarded as a subject-prominent language while Chinese is seen as a topic-prominent one (Li and Thompson, 1976; Jiang, 2009).

Ex.77 碗　洗 了 吗？　　----洗 了。

wan xi le ma　　-----*xi le*

dishes washed le ma　　----wash le

Have you washed the dishes?　　----Yes, I have.

The second difference lies in converting declarative sentences into yes-no questions or wh-questions. In Chinese, there is no need to move the verb or the interrogative constituents to form an interrogative sentence. By contrast, English has to employ an auxiliary verb or move the verb to the head of the sentence to raise a yes-no question, and it has to move the wh-word to the initial position of the sentence to raise a wh-question (Xing, 2006, p.161; Huang and Liao, 2002, pp.91-94).

Ex.78 Declarative sentence: 她 是 我　的 朋　友。

ta shi wo de peng you

she is I de friend

She is my friend.

Chinese yes-no question: 她　是 你的　朋　友　吗？

ta shi ni de peng you ma

she is you de friend ma

English yes-no question: Is she your friend?

Ex.79 Declarative sentence: 她 在　花　园 里。

ta zai hua yuan li

she in the garden

She is in the garden.

Chinese Wh-question: 她 在　哪里？

ta zai na li

she is where

English Wh-question: Where is she?

3.6 Summary

To sum up, this chapter explores the five principal Chinese structures in terms of their major forms and WO features, and a relevant comparison between Chinese and English concerning these five structures is included. The Chinese attributive-headword structure, adverbial-headword structure, verb-object structure and subject-verb structure have counterparts in English while the verb-complement structure does not. For the verb-object structure and subject-verb structure, the analysis focuses on their special patterns, namely the ba construction and the inverted subject-verb structure respectively. The comparative linguistic account of these five structures answers the first research question, ‘What are the features of CWO in comparison with EWO?’ and sets the stage for the analysis of learners’ errors.

Chapter 4
Research Methodology

This chapter presents the methodology used for exploring English-speaking learners' acquisition of CWO. Section 4.1 explains why quantitative analysis and qualitative analysis are adopted as the research methods; Sections 4.2 and 4.3 introduce the pilot study and survey respectively; Section 4.4 outlines the content of the questionnaire; Section 4.5 provides information about the participants; Section 4.6 states how the data is analysed; Section 4.7 demonstrates the ethical considerations of the current study and Section 4.8 is a conclusion of this chapter.

4.1 Quantitative and Qualitative Research Methods

A combination of quantitative analysis and qualitative analysis is employed to collect and examine data about learners' acquisition of CWO. The quantitative research method is in the form of a survey, which includes a clarification about the research, ethical considerations and a questionnaire. The questionnaire is designed as a test on CWO to collect data about English-speaking learners' application of the five primary Chinese structures. The test contains five tasks, with a total of 70 questions. There are 45 participants from three different levels involved in the survey. With the help of quantitative analysis, various figures and tables are generated to present and compare each level's results in different WO structures and reveal the difficulty of each WO structure. The qualitative research method is adopted to analyse and discuss the results derived from the questionnaire. Word order errors are analysed with the support of relevant SLA theories and approaches. The qualitative analysis enables the researcher to compare and generalise the results of the three levels, find out their differences and difficulties and investigate the reasons for WO errors.

In short, an integration of the quantitative and qualitative research methods is conducive to answering the research questions ‘What kinds of WO errors do L2 Chinese learners often make when acquiring the primary Chinese structures?’ and ‘What are the main causes of L2 learners’ WO errors?’ Through coping with these two questions, this study is able to answer the last research question ‘How can this research help with the learning and teaching of CWO?’

4.2 Pilot Study

To design a reasonable and effective survey, this study has carried out a pilot study prior to the empirical research. To be specific, four English-speaking students who studied on a Chinese degree programme at the University of Leeds were invited to complete a pilot test on CWO. These four volunteers had just started their third year of Chinese study at Leeds and their Chinese proficiency varied, representing the low, middle and high levels of their class respectively. They completed 70 questions concerning WO of the five basic Chinese structures within two hours, and their results showed that the subject-verb and verb-object structures were much easier than the attributive-headword, adverbial-headword and verb-complement structures. Based on their performance, relevant modification and improvement have been made onto the CWO test, which is the key technique used for collecting data from English-speaking learners. It is hoped that the survey can reflect WO difficulties students frequently encounter when learning the five basic Chinese structures and meanwhile reveal participants’ language aptitude since language testing can help to deal with language teaching problems and examine language proficiency and language learning stages (Davies, 1990, p.71).

According to Skehan (2018, p.22), the major factor that may ‘influence performance during the task is the choice of the task itself’, so the task should be of appropriate difficulty and highlighted aspects. Since both Chinese and English share the same SVO word order and the pilot tests see no errors in the verb-object structure and only a few errors in the subject-verb structure, questions related to these two structures are kept in a small

number in the questionnaire. To be specific, the subject-verb structure is examined in its special pattern: the topic-comment construction, and the verb-object structure, though not directly taken as a testing point, is involved in several questions in its special pattern, the ba construction. By contrast, the pilot study's results indicate that participants have much more difficulty with the attributive-headword, adverbial-headword and verb-complement structures. In addition, the emphasis of the current study is also on these three Chinese structures as they vary a lot from English in terms of WO. Therefore, the majority of testing points in the questionnaire rest with the attributive-headword, adverbial-headword and verb-complement structures.

In brief, the pilot study provides a preview of the L2 learners' CWO proficiency and helps to identify the difficult and easy parts of L2 learners' acquisition of WO concerning the five primary Chinese structures. Based on the pilot study's results, the testing points of the questionnaire have been adjusted and some questions have been modified, with more attention paid to the attributive-headword, adverbial-headword and verb-complement structures while the subject-verb and verb-object structures are discussed briefly.

4.3 Survey

The current study recruits English-speaking students who are learning Chinese as a foreign language at the University of Leeds as research participants. These L2 Chinese learners are from three different grade levels with different Chinese competence. According to Cohen et al. (2007) and Zheng (2014), doing a survey is an effective way to obtain descriptive and explanatory information from participants with different language proficiency levels at a particular period. Besides, the survey method can use various types of questions, such as multiple choice questions, translation questions, etc. to gather information about students' L2 acquisition. This project combines paper surveys with online surveys to collect data. On the one hand, as a traditional research method, paper surveys have all the merits of the survey method. For instance, it can ensure the response rate as much as possible and it is an easy and direct way for researchers to get

information from the participants. On the other hand, paper surveys may cost too much in materials, energy and time during the data collection process.

By contrast, online surveys can break the limit of physical distance, saving time and cost. It is also more convenient for the respondents as they do not need to handwrite the answers. However, online surveys are not a very effective way to get a high response rate and participants may tend to look for help online. Therefore, a combination of paper surveys and online surveys can ensure the return rate and participants' real language performance. The paper survey is primarily employed to collect data from the L2 learners and the online survey is mainly used for collecting data from the control group because there is a distance limit between the researcher and the control group's participants. Both the paper survey and online survey are of the same content.

In order to obtain a comprehensive analysis of the participants' learning of CWO, the survey adopts a cross-sectional method by means of language tests. According to Davies (1990, p.71), language testing can both provide 'practical solutions to language teaching problems' and examine the major concerns of applied linguistics, namely 'the nature of language proficiency, language aptitude and the delineation of language learning stages.' In addition, the advantage of cross-sectional study lies in that it can obtain a clear picture of different participants' performance in a particular aspect of L2 acquisition (Wang, 2011). Furthermore, the cross-sectional method enables different groups to be compared at the same time (Zheng, 2014). However, this method may not be able to reflect the dynamic changes occurring in the L2 acquisition process, so the method of interview could be employed to examine the changes and development of certain individual acquisition processes. The longitudinal research method can capture a dynamic L2 acquisition journey, yet it takes a longer period to collect the data. Since the current study aims to investigate the learning difficulties of and compare the learning differences between students from different levels at the same period, the cross-sectional method is adequate to achieve this goal.

4.4 Questionnaire

The questionnaire starts with background information like participants' names, academic year, native language, and so on. It then asks participants to independently complete a language test. With the hope of being explicit and controlling uncertainty, the questionnaire adopts five types of tasks to cover WO issues concerning the five primary Chinese structures. At the advice of this project's supervisors, the number of questions in the WO test is identified as 70 to ensure that participants can finish the questionnaire within one and a half to two hours and the WO issues can be covered as much as possible. These 70 questions are included in the multiple choice task (ten questions), the matching task (20 questions), the combining task (15 questions), the revising task (ten questions) and the translation task (15 questions). Each task is provided with an instruction and an example to make sure that respondents know how to answer the questions. Moreover, some new or relatively complex Chinese words/phrases are provided with an English explanation for participants' reference.

According to Davies (1990) and Underhill (1982), reliability and validity are two crucial criteria for a language test, and language testing mainly concerns being explicit and controlling uncertainty. Explicitness is related to 'what is being tested and what has been learnt' and comes from 'careful analysis of the language, the rules, the vocabulary, the texts', etc., while control of uncertainty involves 'statistical operations' and comes through 'careful sampling of items and subjects and appropriate matching of them both' (Davies, 1990, p.53). All the questions in the CWO test are carefully designed and have been repeatedly improved. Some are adapted from the HSK tests, some refer to the exercises of Chinese grammar books and some are formulated according to the specific research content. To ensure the reliability and validity of the questionnaire, four pilot tests have been implemented prior to the formal data collection and the questionnaire has been cross-checked by the researcher and the supervisors of this project.

As noted before, the primary focus of this study is on the the attributive-headword, adverbial-headword and complement-headword structures because the pilot tests have proved that students have fewer WO problems with the verb-object and subject-verb structures; furthermore, the Chinese

attributive-headword, adverbial-headword and complement-headword structures bear more differences with English and are more complex to teach and learn (Peng and Peng, 2021). Therefore, these three structures are more frequently examined in the questionnaire. In sum, all the five structures are covered in the five tasks, and a balance of restricted-response items, close-ended items and open-ended items has been obtained to reduce the limitations of each task (Carroll, 1982).

4.4.1 Close-Ended Items

The close-ended items provide a given set of answers for respondents to choose from (Carroll, 1982). For language proficiency tests, the commonly used close-ended question type is the multiple choice task, which can cover a wide range of content and can be assessed objectively. The multiple choice task in this questionnaire is designed with four choices that have similar answers so as to test students' ability of telling the linguistic differences and applying the right WO to a specific Chinese structure.

Ex.80 我___他的名字。[A.不想起来; B.想不起来; C.想来不起; D.想起不来]

wo___ta de ming zi [A. bu xiang qi lai; B. xiang bu qi lai; C. xiang lai bu qi; D. xiang qi bu lai]

I___his name [A. don't want to get up; B. unable to call to mind; C. ungrammatical Chinese expression; D. ungrammatical Chinese expression]

This question tests the WO of Chinese verb-complement structures' negative expression. As answer C and answer D don't make sense in Chinese, they should be excluded first. The proper answer is B according to the context.

4.4.2 Restricted-Response Items

Carroll (1982, p.8) suggests that restricted-response questions allow the respondents to complete on restricted grounds; the answer may include one or two words or at the most a short sentence. In this questionnaire, the matching task, the combining task and the revising task are employed as restricted-response questions.

The matching task examines the position of markers of Chinese attributives, adverbials and complements, and the sequence of adverbials, multiple attributives, etc. There are three blanks/options in each sentence, and participants are expected to match the given character/word/phrase with a right option, namely choosing a proper position for the given character/word/phrase in the sentence.

Ex.81 _A_做_B_些运动_C_有利于身体健康。[多_A_]

_A_zuo_B_xie yun dong_C_you li yu shen ti jian kang. [duo_A_]

_A_do_B_some exercise_C_is beneficial for health. [more_A_]

This question examines the position of adverbial ‘多’ (more). Students may confuse answer A with answer B. As ‘多’ (more) is used to describe the verb ‘做’ (do) instead of the object after the verb, it should be placed before the verb as an adverbial, so the correct answer is A.

The second type of restricted-response questions is the combining task, which aims at assessing whether students are able to reorganise sentences correctly as each question consists of a group of words and phrases in a random order. To make sure participants can produce a sentence that complies with the task requirement and to facilitate their understanding of the question, a corresponding English interpretation is provided for each question.

Ex.82 ①我 ②买了 ③一张 ④桌 ⑤大 ⑥的 ⑦崭新(new) ⑧圆 (I bought a large new round table.)

①*wo* ②*mai le* ③*yi zhang* ④*zhuo* ⑤*da* ⑥*de* ⑦*zhan xin* ⑧*yuan*

①I ②bought ③one + Chinese measure word ④table ⑤large ⑥de (Chinese attributive marker) ⑦new ⑧round

This question examines participants' understanding of multiple attributives' WO, especially WO of descriptive attributives. Since the WO of multiple attributives varies a lot between Chinese and English, students need to carefully organise this sentence according to the sequencing rules of multiple Chinese attributives.

The third type of restricted-response questions is the revising task, which includes ten incorrect Chinese sentences, investigating not only students' ability of detecting errors, but more importantly, their capability to revise errors. It is a relatively difficult restricted-response task for L2 students as it has a higher requirement, namely to diagnose errors and know why. There is no English interpretation for the Chinese sentences except for glossary annotations, and respondents are expected to correct the error simply by rearranging the sentence without any addition or deletion of words/phrases.

Ex.83 这 个 活 动 在 英 国 一个 城 市 叫 利兹的 举 行。

zhe ge huo dong zai ying guo yi ge cheng shi jiao li zi de ju xing

this activity in Britain a CMW city called Leeds de organise

This question aims to test the position of the verbal phrase '叫利兹的' (called Leeds + de), and participants are expected to move it to the front of '城市' (city), which is the headword modified by '英国' (Britain), '一个' (one + Chinese measure word) and '叫利兹的'.

4.4.3 Open-Ended Items

The final task of the questionnaire is the translation task, which is adopted as an open-ended question type. Participants need to translate 15 English sentences into Chinese and glossary annotations are provided for students'

reference. The purpose of this task is to test participants' ability of producing Chinese sentences in appropriate WO based on the given English context.

Ex.84 My dad is a manager working in a big company. He drinks at least five cups of coffee every day.

This sentence tests the use of a verbal phrase as an attributive and the positioning of adverbials in Chinese. Students are expected to distinguish the differences between Chinese and English regarding attributive and adverbial WO.

4.5 Sampling

Many British universities offer Chinese courses nowadays for degree and/or other purposes. As the course setting varies from university to university, the exact number of L2 Chinese learners keeps changing and L2 learners' backgrounds are of a rich variety, it is difficult to reach all the L2 Chinese learners. Therefore, this study chooses a representative group of participants from the University of Leeds which boasts a well-established Chinese programme. Although a larger sample size involves more sophisticated statistics and adequate results, it is not always representative (Zheng, 2014).

This study targets English-speaking students from three different grade levels who are studying Chinese as a bachelor programme. Students from Level 1 are at lower-intermediate level; they have finished their first year of Chinese study at Leeds and are nearly at the end of their study-abroad year. Students from Level 2 are at upper-intermediate level; they have completed two years of Chinese study at university and are in their third year of Chinese study. Students from Level 3, namely the advanced level, have fulfilled three years of Chinese study and are in their last year at Leeds. The number of students varies in each level and not all students are native English speakers. Therefore, to strike a balance of the number of

participants in each level, this research identifies 15 English-speaking participants in each level. As the data collected via the survey mainly consists of qualitative data, the sample of 45 participants is adequate to represent the L2 Chinese learners group.

For third-year and fourth-year students, the questionnaire was primarily collected via paper versions at the University of Leeds, while for second-year students who studied abroad in China, the questionnaire was mainly collected in a combination of paper versions and electronic versions. Each level has 15 participants, so a balance is ensured to make a comparison among the three levels. In other words, the participants are grouped according to their real academic year at university.

To make sure the rationality and objectivity of data analysis, five native Chinese speakers have been identified as a control group. These five Mandarin speakers consist of two PhD students, one postgraduate student and two undergraduates. All of them have received tertiary education and have good Chinese and English language proficiency. What's more, the analysis of the questionnaire involves guidance from this project's two supervisors so as to guarantee the accuracy and validity.

4.6 Data Analysis

This study mainly employs the method of Immediate Constituent (IC) Analysis to examine English-speaking learners' application of the five principal WO structures. First introduced by Bloomfield in the 1930s, IC Analysis is a system of grammatical analysis that divides a sentence or phrase into successive layers until in the final layer, each constituent comprises only one word or a meaningful part of a word, and usually each layer consists of two immediate constituents. The Chinese syntactic constituents involved in IC Analysis include subject, verb, object, attributive, adverbial, complement, predicate and headword, and the principles of structure, function, and meaning should be observed when applying this analytical method (Zhu, 1983; Luo, 1996; Huang and Liao, 2002; Zhang,

2010). According to Huang and Liao (2002) and Zhang (2010), IC Analysis is an effective method of sentence and phrase analysis as it enables us to understand the structural order of a sentence or phrase and the structural relationship between the immediate constituents. Moreover, IC analysis can help researchers decide whether a Chinese sentence is well-formed and discern the errors caused by English interference (Cheng and Li, 1997). Yet, not all Chinese constructions can be divided into two immediate constituents, such as the coordinating construction, the serial verb construction, the pivotal construction and the double object construction. Moreover, IC Analysis cannot reveal the covert semantic structural relationship in a syntactic construction. Therefore, the sentence element analysis and semantic analysis are adopted to complement IC Analysis in the data analysis process.

This study uses Microsoft Office Excel and Word to record and present data. When examining participants' answers, special attention is paid to learners' WO errors. Apart from referring to the control group's responses, all the questionnaire results have been crosschecked by the researcher and this project's supervisors. An inter-rater agreement has been achieved prior to the formal analysis of participants' WO errors so as to ensure the objectivity and validity of the survey. After recording all three levels' results in Excel, wrong answers related to WO are reported under the task type and the WO structure type. Various figures and tables are produced to present a clear picture of the results.

4.7 Ethical Considerations

This study has obtained an ethical approval from the University of Leeds before carrying out the survey. All participants volunteering to do the survey are free to withdraw at any time they want, and all questionnaires are examined with confidentiality. The data are safely stored in the researcher's personal electronic device for research purposes only.

4.8 Summary

On the whole, the survey combines the qualitative and quantitative research methods to explore English-speaking learners' application of CWO. A pilot study has been carried out to improve the design of the questionnaire. From the grammatical perspective, CWO issues are primarily examined at the sentence and phrase level. Students are allowed to refer to dictionaries but are advised to work on the questionnaire independently. The 45 participants are from three different grade levels and each level sees 15 respondents. Furthermore, a control group of five Mandarin speakers is identified as a reference to make sure the data analysis is objective and effective.

Chapter 5
Data Presentation of the Questionnaire

This chapter presents and discusses the overall results obtained from the 45 questionnaires. The 45 participants are divided into three groups according to their grade level at university, with each group/level seeing 15 participants. The L2 groups and the control group's accuracy rate is presented first, followed by their number and percentage of WO errors. Comparisons among the three L2 groups and those between the L2 groups and the control group are also included.

5.1 Ways of Presenting the Results

For the questionnaire, one representative point of correctness/wrongness in a WO structure is a testing point for calculation. Among the 70 questions, in most cases one question tests one WO structure, but there are a couple of questions testing more than one WO structure each, thus the total number of testing points exceeding that of the questions. To be specific, there are 25 testing points involving the attributive-headword structure, 31 concerning the adverbial-headword structure, 18 relating to the verb-complement structure, and one touching on the subject-verb structure, with the total number of testing points being 75. To present a comprehensive account of students' application of CWO, the questionnaire results are presented under the five tasks and four WO structures respectively.

When coping with participants' results in terms of task types, the accuracy rate of each task depends on whether each question is correctly answered. If one question contains two testing points, one correct answer means that both testing points are handled correctly. However, the error rate of each task is based on the wrongly answered testing points in each question because the focus of this research is to investigate L2 learners' specific WO errors. The accuracy rate directly reflects participants' general performance

in the questionnaire and the error rate is presented as a complement to the accuracy rate as it reveals participants' specific results of WO errors in each task.

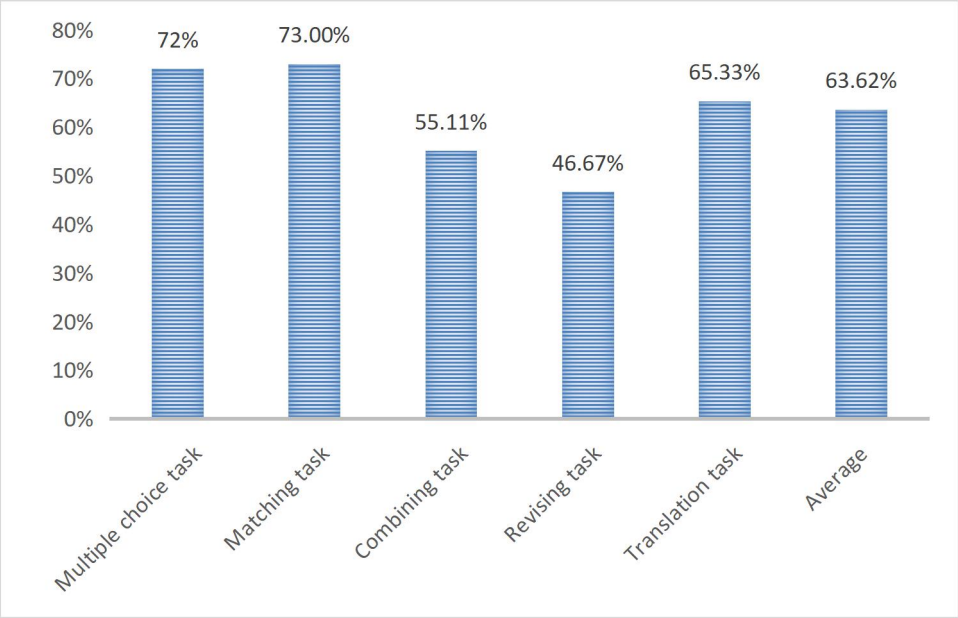
When coping with participants' results in terms of WO structures, the accuracy and error rates of each structure are calculated according to the testing points, namely one representative point of correctness/wrongness in a WO structure covered in each question. For instance, if a translation question tests both the attributive-headword structure and the adverbial-headword structure, there are two testing points in this question. And if a participant makes a WO error in the attributive-headword structure but deals with the adverbial-headword structure correctly, the attributive-headword structure sees one error while the adverbial-headword structure sees a correct answer. This way of data presentation offers a close look at learners' application of specific CWO structures.

In sum, when participants' responses are analysed in terms of task types, the accuracy rate is consistent with the number of correctly answered questions while the error rate is based on the wrongly answered testing points covered in each question. By comparison, when the results are examined in terms of WO structures, the corresponding accuracy and error rates are in line with the number of correctly or wrongly answered testing points. The combination of these two perspectives is beneficial for directly demonstrating students' general performance in the questionnaire and specifying their results in each CWO structure.

5.2 Accuracy Rate and Average Result of Each Group

This section presents each group's accuracy rate and average performance in the five tasks[4] and four WO structures[5], starting from Level 1, then Level 2, Level 3 and the control group.

Figure 5. 1 The Accuracy Rate and Average Result of Level 1 Concerning the Five Tasks

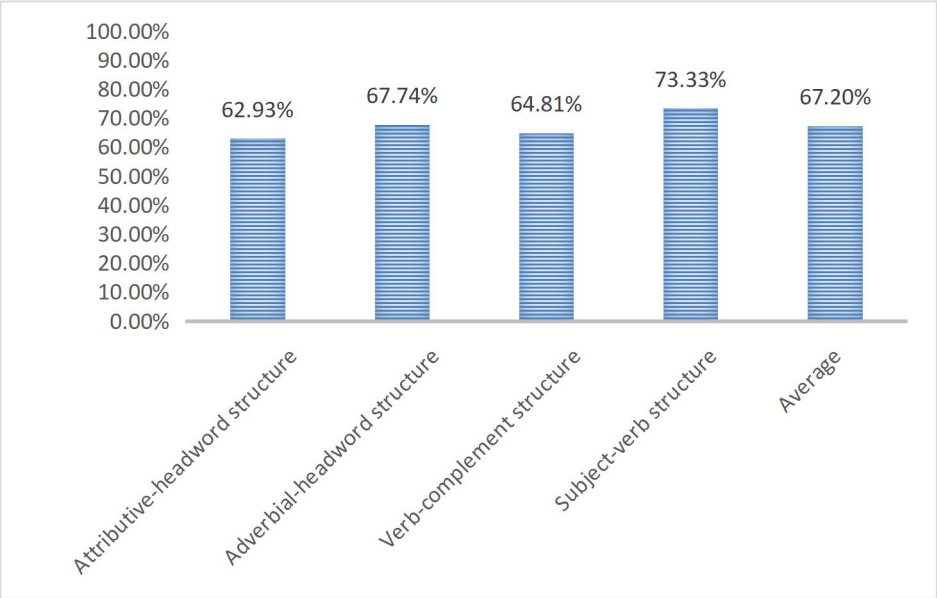


According to Figure 5.1, Level 1's average result in terms of the five tasks is 63.62%. Its accuracy rate in the multiple choice task is 72%, the matching task is 73%, the combining task is 55.11%, the revising task is 46.67% and the translation task is 65.33%.

[4] Refer to Chapter 4, Section 4.4 for clarification of the five tasks.

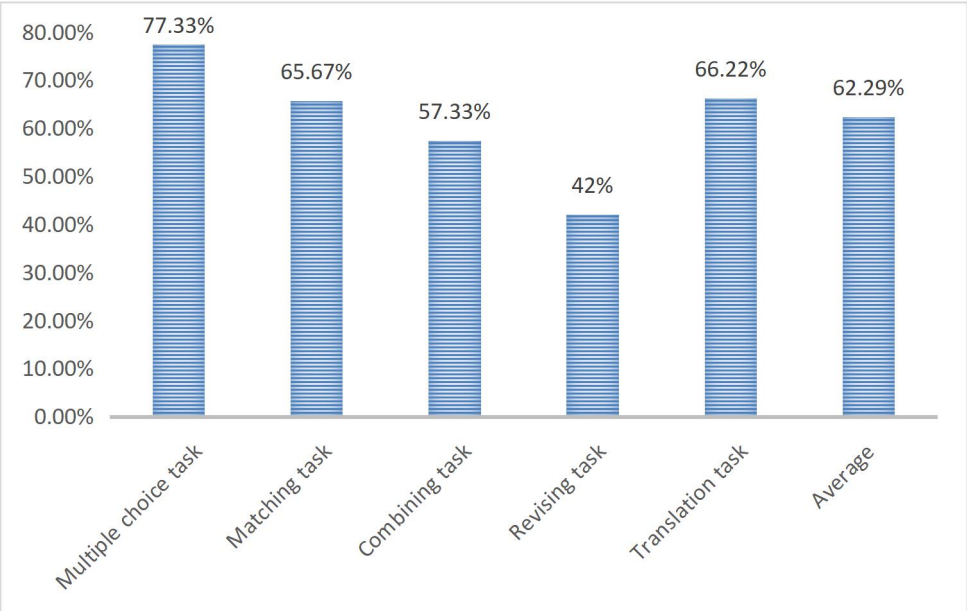
[5] Refer to Chapter 4, Section 4.2 for clarification of the four WO structures.

Figure 5. 2 The Accuracy Rate and Average Result of Level 1 Concerning the Four WO Structures



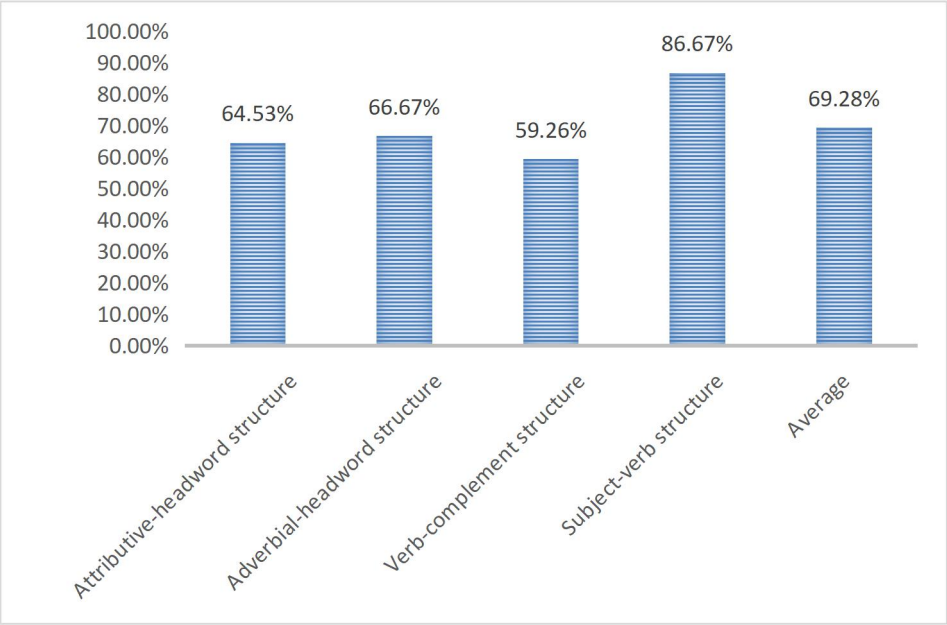
According to Figure 5.2, Level 1's average result in terms of the four WO structures is 67.2%; its accuracy rate in the attributive-headword structure is 62.93%, the adverbial-headword structure is 67.74%, the verb-complement structure is 64.81%, and the subject-verb structure is 73.33%.

Figure 5. 3 The Accuracy Rate and Average Result of Level 2 Concerning the Five Tasks



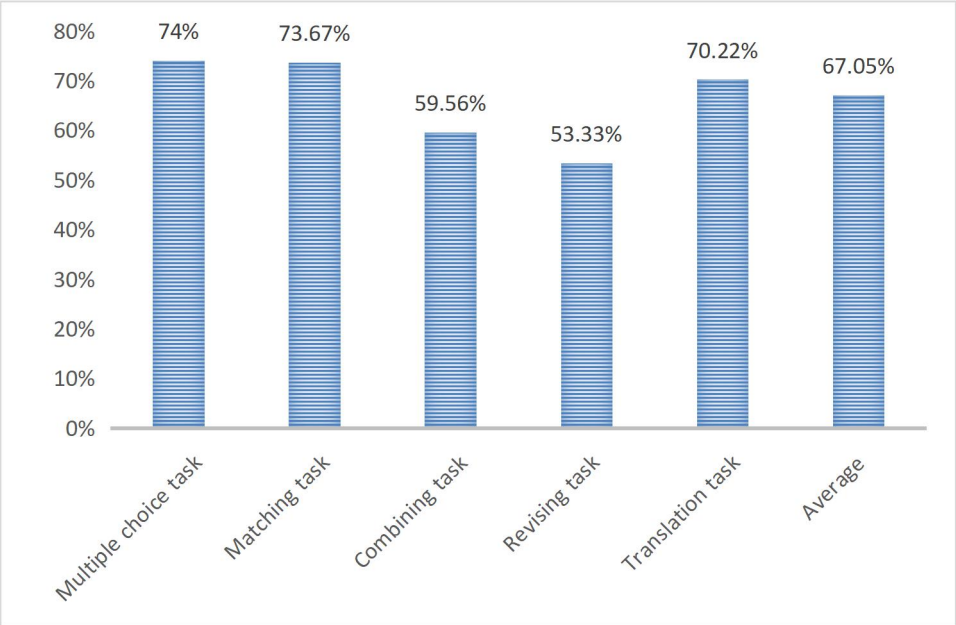
According to Figure 5.3, Level 2's average result of the five tasks is 62.29%. Its accuracy rate in the multiple choice task is 77.33%, the matching task is 65.67%, the combining task is 57.33%, the revising task is 42% and the translation task is 66.22%.

Figure 5. 4 The Accuracy Rate and Average Result of Level 2 Concerning the Four WO Structures



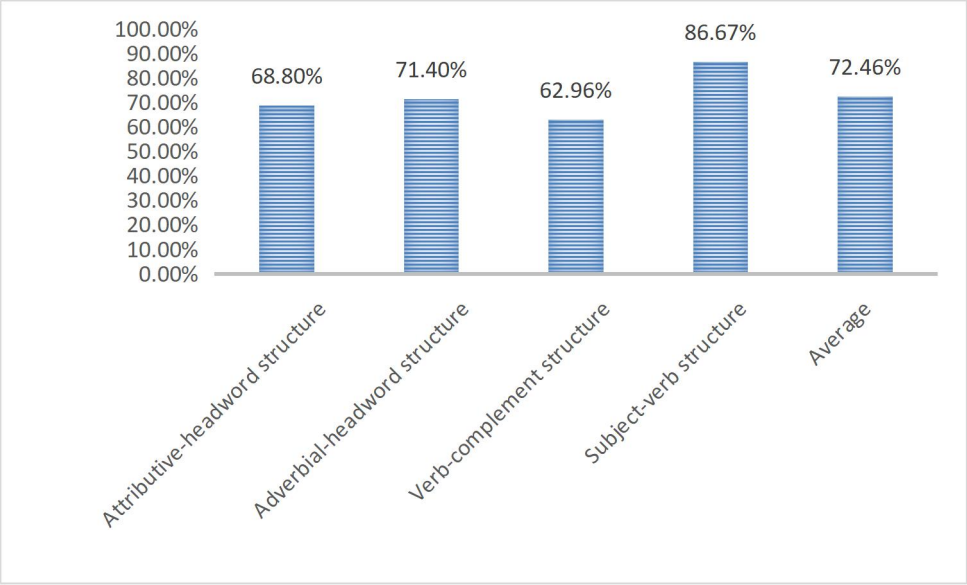
According to Figure 5.4, Level 2's average result in terms of WO structures is 69.28%; the accuracy rate of the attributive-headword structure is 64.53%, the adverbial-headword structure is 66.67%, the verb-complement structure is 59.26%, and the subject-verb structure is 86.67%.

Figure 5. 5 The Accuracy Rate and Average Result of Level 3 Concerning the Five Tasks



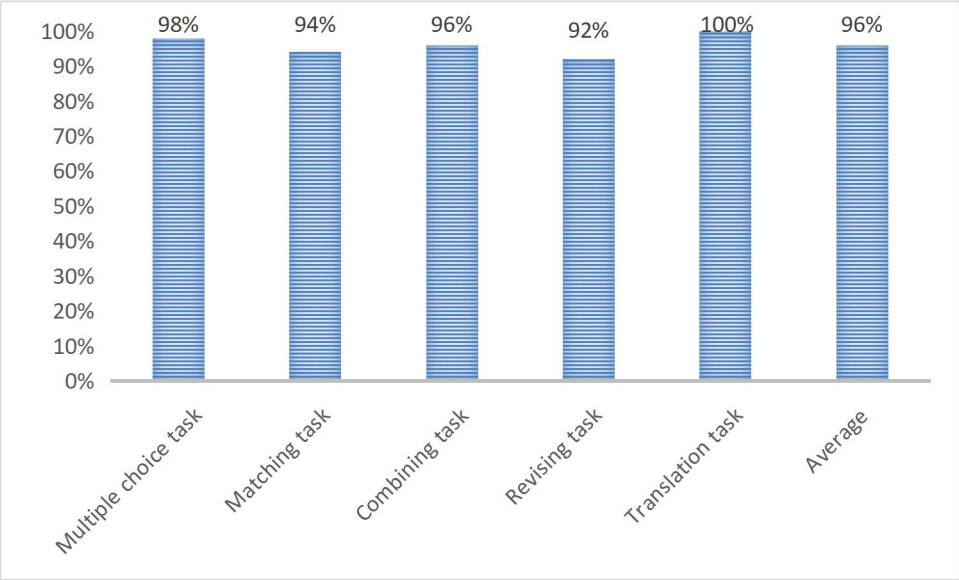
According to Figure 5.5, Level 3's average result of the five tasks is 67.05%. Its accuracy rate in the multiple choice task is 74%, the matching task is 73.67%, the combining task is 59.56%, the revising task is 53.33% and the translation task is 70.22%.

Figure 5. 6 The Accuracy Rate and Average Result of Level 3 Concerning the Four WO Structures



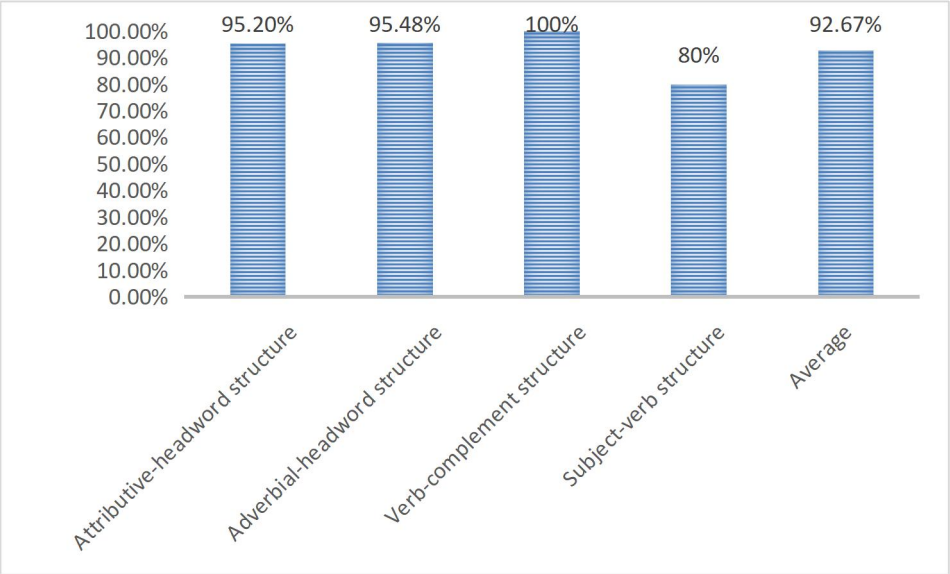
As Figure 5.6 shows, Level 3's average result in terms of WO structures is 72.46%; its accuracy rate in the attributive-headword structure is 68.8%, the adverbial-headword structure is 71.4%, the verb-complement structure is 62.96%, and the subject-verb structure is 86.67%.

Figure 5. 7 The Accuracy Rate and Average Result of the Control Group Concerning the Five Tasks



Based on Figure 5.7, the control group's average result of the five tasks is 96%, and its accuracy rate in the multiple choice task is 98%, the matching task is 94%, the combining task is 96%, the revising task is 92% and the translation task is 100%.

Figure 5. 8 The Accuracy Rate and Average Result of the Control Group Concerning the Four WO Structures



According to Figure 5.8, the control group's average result of the four WO structures is 92.67%. Its accuracy rate in the attributive-headword structure is 95.2%, the adverbial-headword structure is 95.48%, the verb-complement structure is 100%, and the subject-verb structure is 80%[6].

5.3 Comparison of the L2 Groups' Accuracy Rate and Average Result

A comparison of the three L2 groups' accuracy rate and average result concerning each task and word order structure is illustrated in the figures below.

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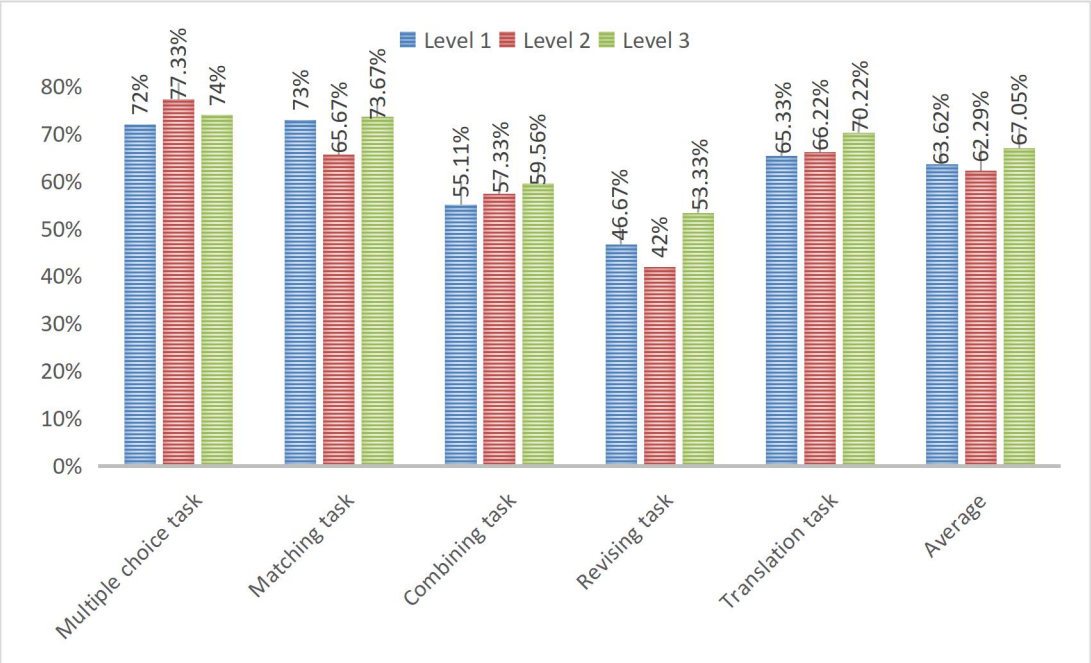
[6] One of the five participants of the control group made a mistake in the subject-verb structure, which is directly tested in only one question, so the control group's accuracy percentage in this structure is 80%, seeming far lower than that in other structures. The researcher has confirmed with the participant that this mistake is made due to carelessness (misreading the complement marker '得' as the attributive marker '的').

Figure 5. 9 The Comparison of the L2 Groups' Accuracy Rate and Average Result Concerning the Five Tasks



As indicated in Figure 5.9, Level 3 has achieved the best average result (67.05%) under the task type, and Level 1 ranks second (63.62%), closely followed by Level 2 (62.29%). With respect to each task, Level 2 does best (77.33%) in the multiple choice task, followed by Level 3 (74%) and Level 1 (72%). For the matching task, Level 3's accuracy (73.67%) is a bit higher than Level 1 (73%) while Level 2's accuracy is only 65.67%. As for the combination task, there is only a small difference among the L2 groups, with the accuracy of Level 3 being 59.56%, Level 2 being 57.33% and Level 1 being 55.11%. The revising task turns to be the most difficult part for all the three groups, with Level 3 scoring an accuracy rate of 53.33%, Level 1 and L2 being 46.67% and 42% respectively. For the translation task, Level 3 (70.22%) precedes Level 2 (66.22%) and Level 1 (65.33%) again.

Figure 5. 10 The Comparison of the L2 Groups' Accuracy Rate and Average Result Concerning the Four WO Structures

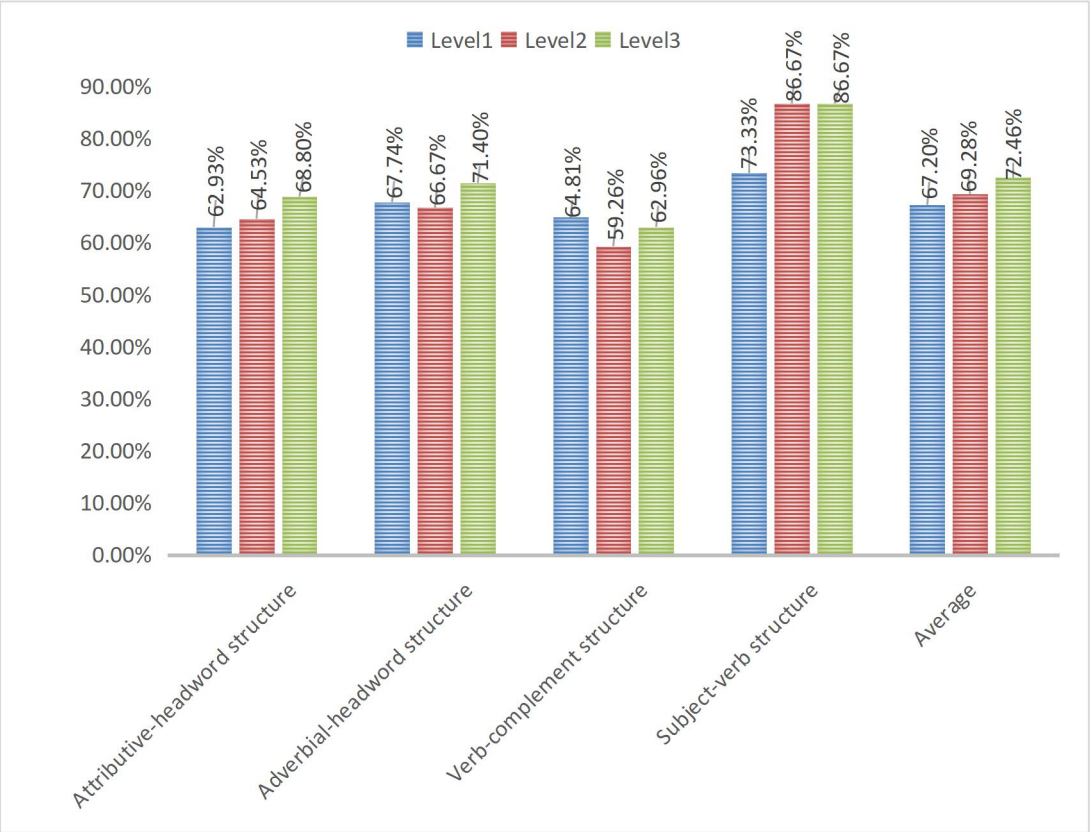
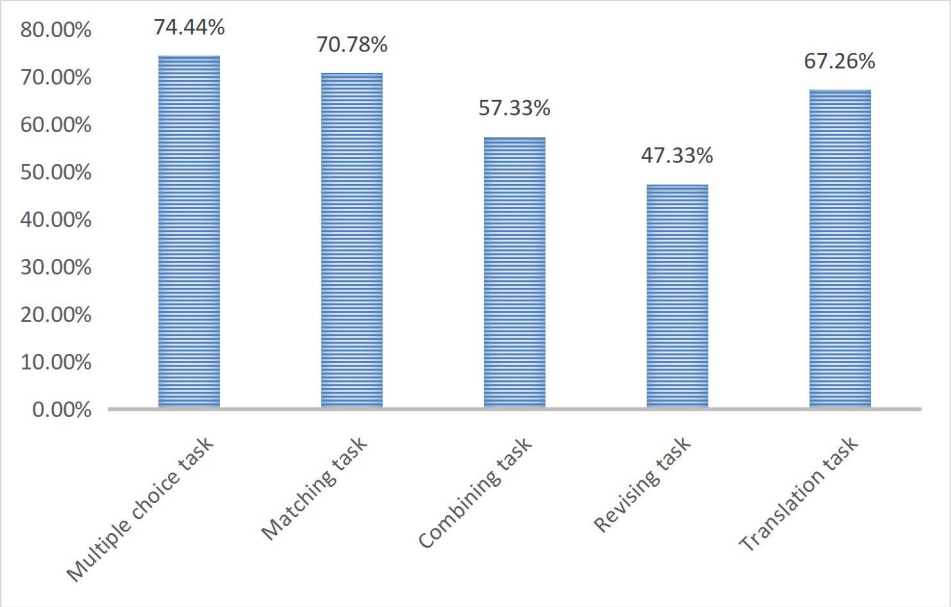


Figure 5.10 indicates that Level 3 still does the best in terms of WO structures, with an accuracy rate of 72.46%. Following Level 3, Level 2's average accuracy is 69.28%, and Level 1 comes last (67.20%). This ranking differs from that of the five tasks. For the attributive-headword structure, Level 3 has the highest percentage of accuracy (68.8%), followed by Level 2 (64.53%) and Level 1 (62.93%). Concerning the adverbial-headword structure, Level 3 still does the best (71.4%), followed by Level 1 (67.74%) and Level 2 (66.67%). As for the verb-complement structure, Level 1 has achieved an accuracy rate of 64.81%, outperforming Level 3 (62.96%) and Level 2 (59.26%). The subject-verb structure sees the same accuracy rate (86.67%) in Level 3 and Level 2, and an accuracy rate of 73.33% in Level 1.

5.4 L2 Groups' Overall Average Result

The two figures below demonstrate the L2 groups' overall average result in each task and WO structure.

Figure 5. 11 L2 Groups' Overall Average Result in Each Task



According to Figure 5.11, compared with other four tasks, the multiple choice task witnesses the highest average accuracy rate 74.44%, followed by the matching task 70.78%, the translation task 67.26%, the combining task 57.33% and the revising task 47.33%.

Figure 5. 12 L2 Groups' Overall Average Result in Each WO Structure

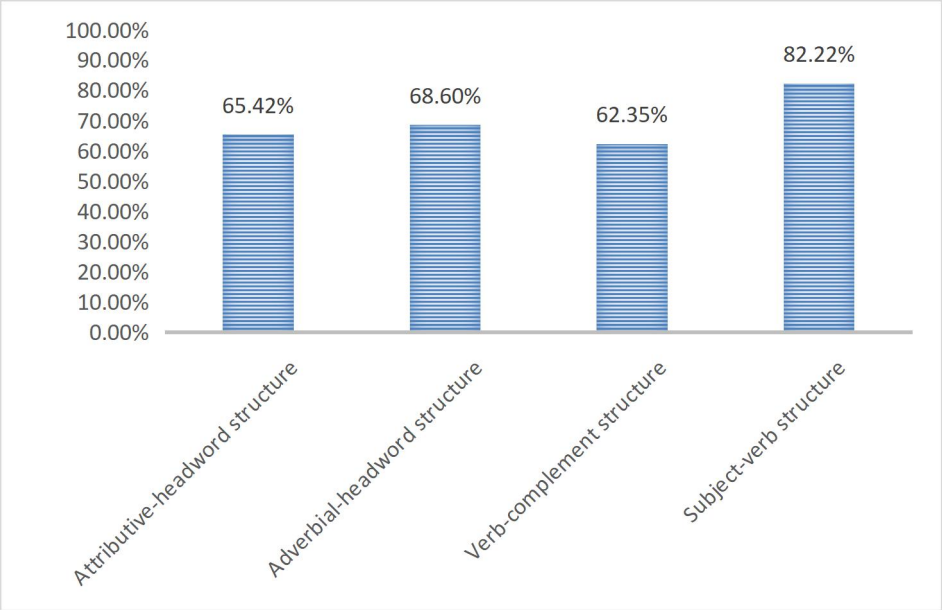
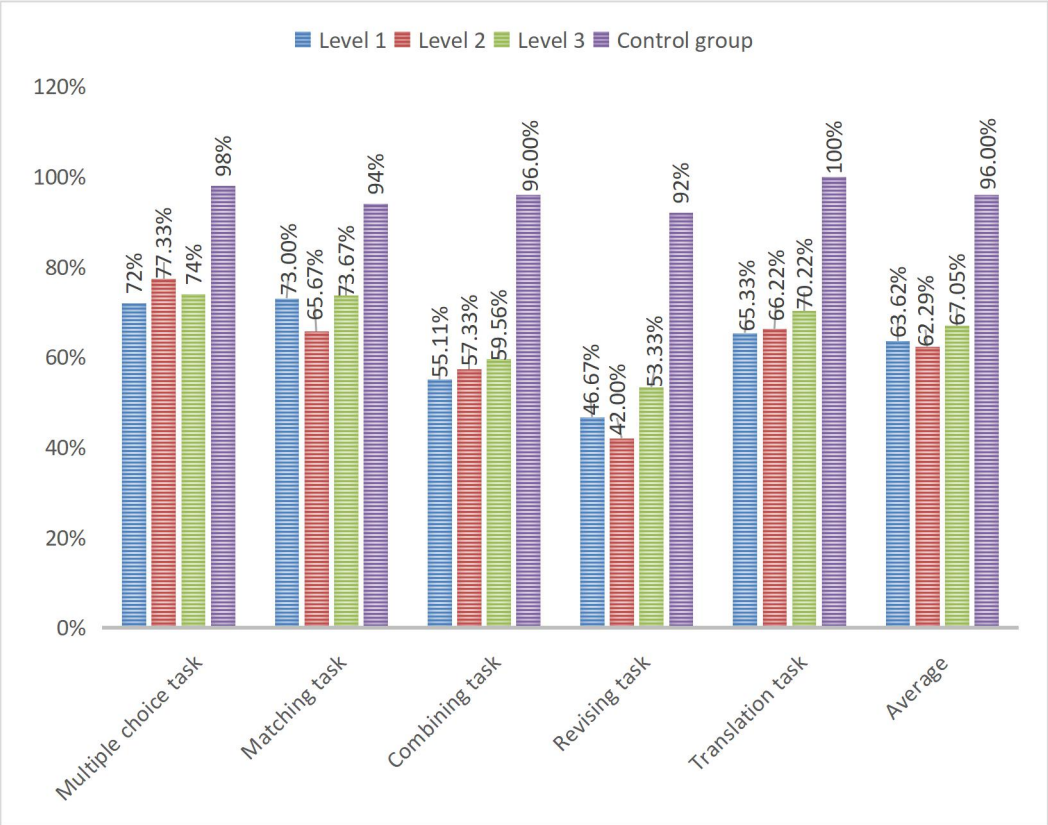


Figure 5.12 indicates that the subject-verb structure has the highest accuracy rate 82.22%, followed by the adverbial-headword structure 68.6%, and the attributive-headword structure 65.42%. The verb-complement structure sees the lowest accuracy rate 62.35%, seeming to be the most difficult structure for all three levels.

5.4 Comparison of the L2 Groups and the Control Group's Accuracy Rate and Average Result

This section presents the comparison between the L2 groups and the control group's average result and accuracy rate in terms of task and WO structure types.

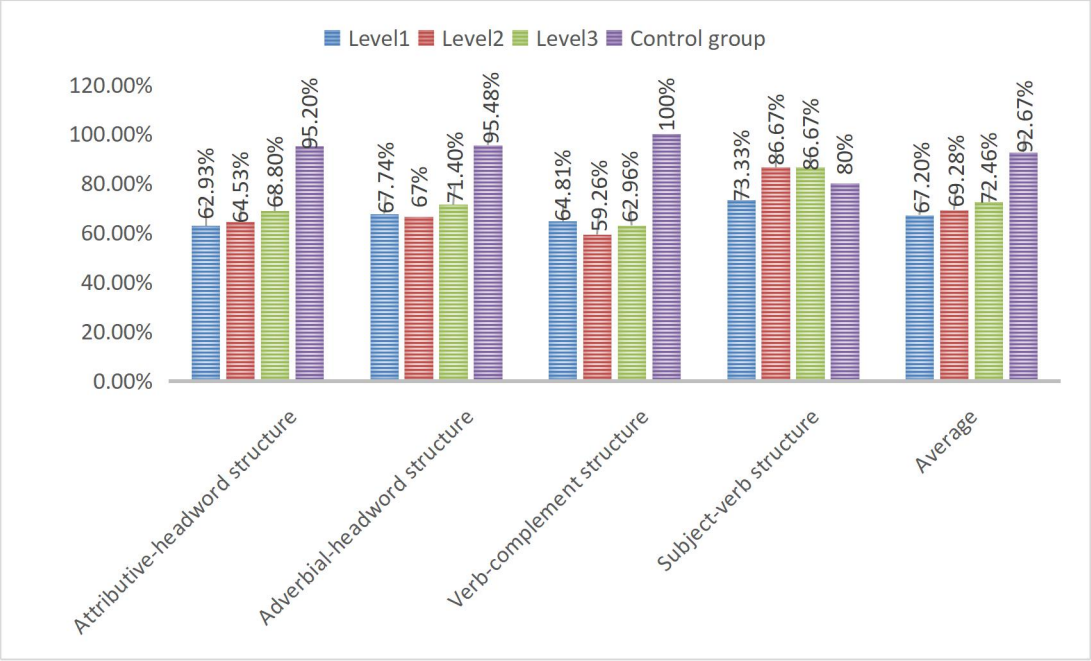
Figure 5. 13 The Comparison of the L2 Groups and the Control Group's Accuracy Rate and Average Result Concerning the Five Tasks



According to Figure 5.13, there are varying gaps between the L2 groups and the control group in the five tasks. For the multiple choice task, the largest gap lies between Level 1 and the control group, which is 26%; the second largest gap (24%) is between Level 3 and the control group, and the smallest gap (20.67%) falls between Level 2 and the control group. In the matching task, Level 2 has the largest gap (28.33%) with the control group. Level 3 and Level 1's gaps with the control group are only slightly different, which are 20.33% and 21% respectively. Concerning the combination task, Level 3, Level 2 and Level 1's gaps with the control group show a gradually increasing trend, which are 36.44%, 38.67% and 40.89%. For the revising task, Level 2 has the largest gap with the control group, which is 50%, followed by Level 1 (45.33%) and Level 3 (38.67%). With respect to the translation task, the largest gap falls between Level 1 and the control group, which is 34.67%, the second largest gap 33.78% lies between Level 2 and the control group, and the smallest gap 29.78% is between Level 3 and the control group.

Regarding the average result of each group, Level 2 sees the largest gap (33.71%) with the control group, followed by Level 1 with a gap of 32.38% and the gap between Level 3 and the control group is 28.95%. It is obvious that the revising task is where the L2 learners have the largest gap with the native speakers, and the multiple choice task sees the smallest gaps between the L2 groups and the control group. Generally speaking, Level 2 has the largest gap with the control group in terms of task types, followed by Level 1 and Level 3. This indicates that the larger the gap between the L2 groups and the control group is, the lower the accuracy percentage the L2 groups have, and the less native-likeness the L2 groups achieve in the CWO test.

Figure 5. 14 The Comparison of the L2 Groups and the Control Group's Accuracy Rate and Average Result Concerning the Four WO Structures



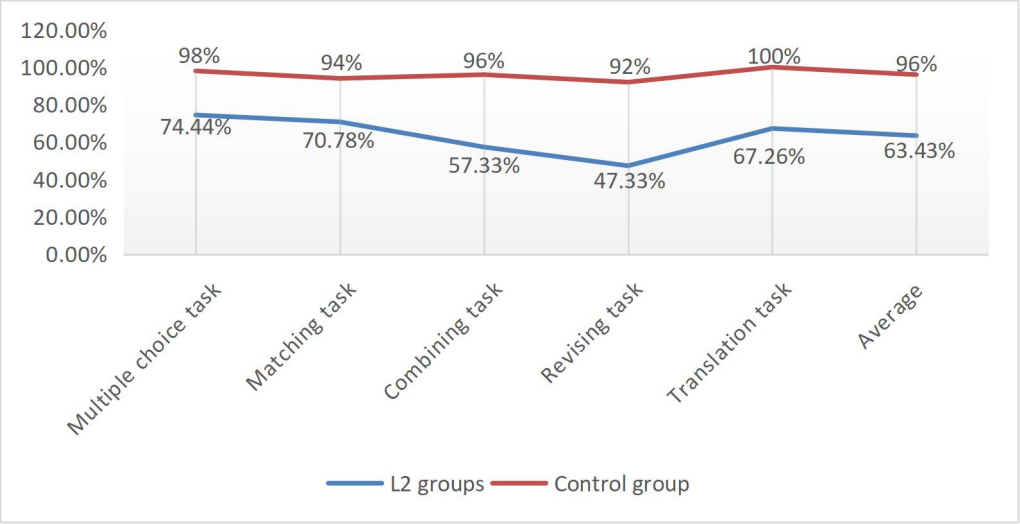
Based on Figure 5.14, for the attributive-headword structure, Level 1 has the largest gap (32.27%) with the control group, the second largest gap (30.67%) is between Level 2 and the control group and the smallest (26.4%) lies between Level 3 and the control group. Concerning the adverbial-headword structure, Level 2 has the largest gap (28.81%) with the control group, Level 1 has the second largest gap 27.74% and Level 3 has the smallest gap 24.08%. For the verb-complement structure, Level 2 sees the largest gap

40.74% with the control group again while Level 3 has a gap of 37.04% and Level 1 has a gap of 35.19% with the control group. With respect to the subject-verb structure, the results are very different from other structures as both Level 2 and Level 3 outperform the control group by a gap of 6.67%, and Level 1's accuracy is only 6.67% lower than the control group. In terms of the average result of each group, the gaps of Level 3, Level 2 and Level 1 with the control group show a gradual widening trend, which are 20.21%, 23.39% and 25.47% respectively.

When viewed from the WO structure, L2 groups have smaller average gaps with the control group than from the task type. Obviously, the subject-verb structure is where L2 groups achieve the best results while the verb-complement structure sees the largest gap between the L2 groups and the control group. In conclusion, Level 1 has the largest gap with the control group in terms of WO structures, followed by Level 2 and Level 3. This result differs from that of the task type as Level 1 achieves better results than Level 2 when viewed from the perspective of task types.

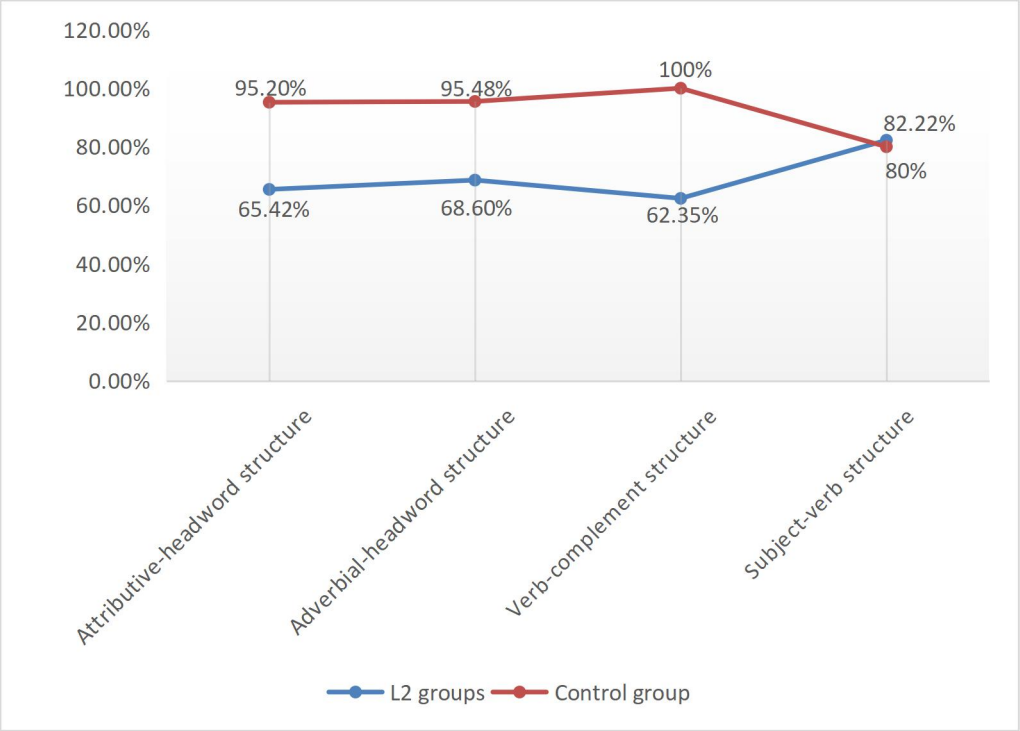
To present a clearer picture of the gaps between the L2 groups and the control group, Figure 5.15 and Figure 5.16 illustrate the average accuracy of the L2 groups and the control group in relation to the five tasks and four WO structures separately.

Figure 5. 15 The Comparison of the L2 Groups and the Control Group's Average Result Concerning the Five Tasks



According to Figure 5.15, the revising task witnesses the largest gap (44.67%) between the L2 groups and the control group. The second largest gap (38.67%) between the two groups lies in the combination task, followed by the translation task (32.74%), the multiple choice task (23.56%) and the matching task (23.22%).

Figure 5. 16 The Comparison of the L2 Groups and the Control Group's Average Result Concerning the Four WO Structures



According to Figure 5.16, the verb-complement structure sees the widest gap (37.65%) between the L2 groups and the control group. The attributive-headword structure also has a wide gap (29.78%) between the L2 groups and the control group. The third largest gap falls into the adverbial-headword structure (26.88%) whereas the subject-verb structure sees a reverse gap between the two groups, which means the L2 groups' average percentage of accuracy is 2.22% higher than the control group. On the whole, Figures 5.15 and 5.16 show that the control group takes the lead in the five tasks and three out of the four WO structures, except for the subject-verb structure; moreover, it can be assumed that where there is a wider gap between the L2 groups and the control group, there lies more difficulties for L2 learners.

5.5 L2 Groups' Number and Percentage of Word Order Errors

After presenting the three L2 groups' accuracy rate and average result in the five tasks and four WO structures, it is also necessary to demonstrate the specific WO errors that L2 learners have made in each task and WO structure. As noted before, each task's error rate is calculated different from its accuracy rate because the error rate is based on the number of wrongly answered testing points covered in each question whereas the accuracy rate is based on the number of correctly answered questions. For instance, if one translation question tests both the attributive-headword structure and the adverbial-headword structure and students make errors in both structures, then this question contains two errors. By contrast, one correct answer means that both testing points in this question are done right.

Through illustrating both the accuracy rate and error rate, on the one hand, we can have a more comprehensive and detailed picture of students' general performance in the CWO test; on the other hand, we can focus more on students' specific WO errors, which are the primary research target of this study.

The WO errors are presented via both their number and percentage as the largest number of WO errors does not necessarily suggest the largest percentage of WO errors. For example, the combining task has the largest number of errors but its error rate is not the highest in the five tasks; the adverbial-headword structure sees the largest number of errors while its error rate is not the highest among the four WO structures either. Calculating the percentage of WO errors in each task and WO structure can help to indicate how difficult one task or WO structure is for L2 learners.

Each L2 group's results of WO errors are demonstrated in the following figures, starting from Level 1 to Level 2 and Level 3.

Figure 5. 17 Level 1's Number and Percentage of WO Errors in the Five Tasks

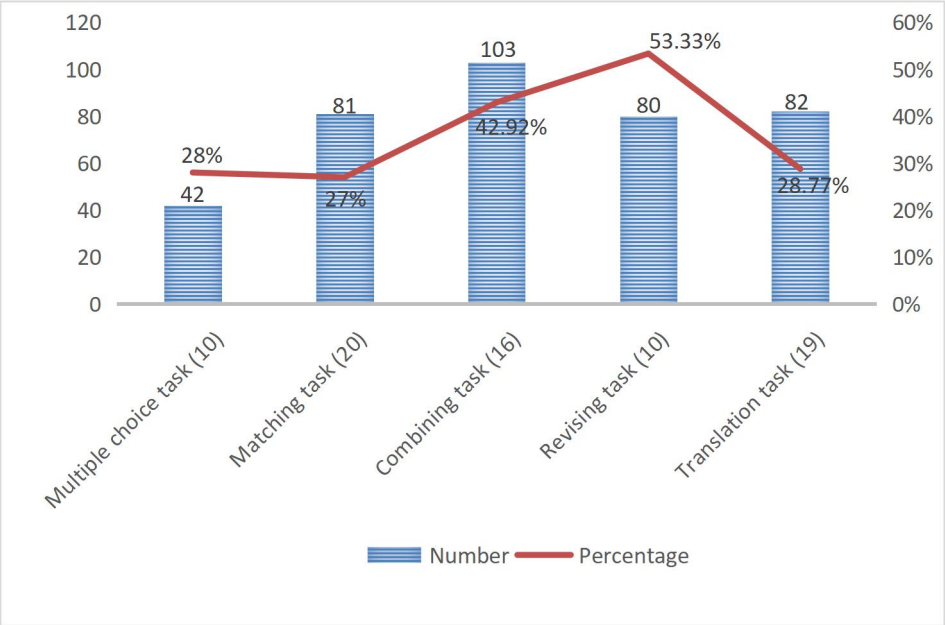
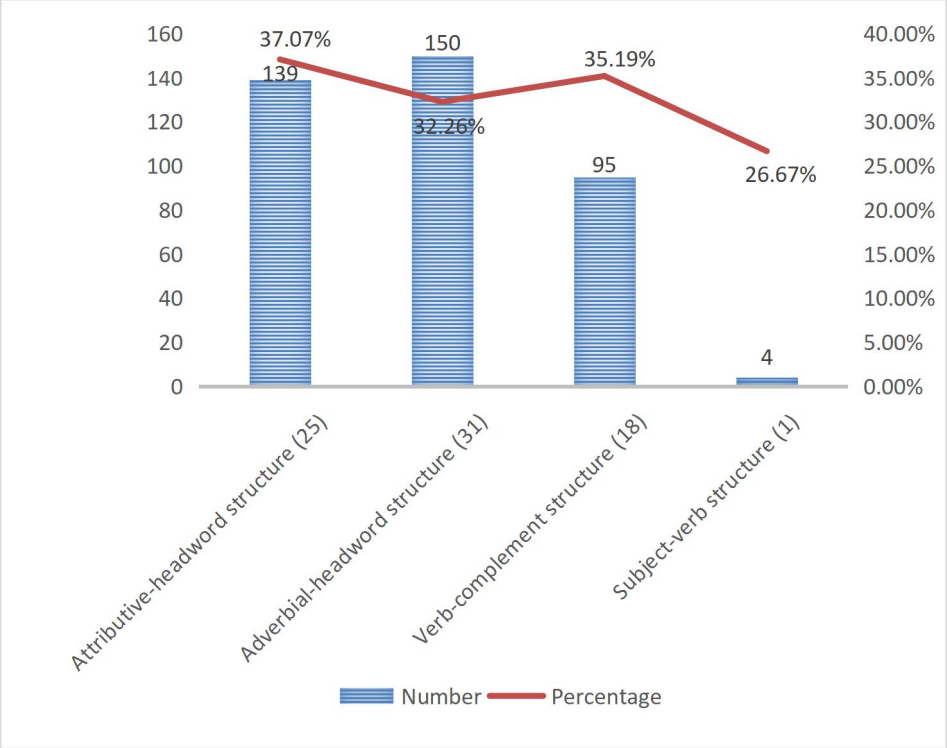


Figure 5. 18 Level 1's Number and Percentage of WO Errors in the Four WO Structures



In Figures 5.17 and 5.18, the figure in brackets beside each column title indicates the number of testing points of each task/WO structure, and the percentage line indicates the error rate of each task/WO structure. This case goes the same with the following figures of Level 2 and Level 3. According to these two figures, the total number of WO errors in Level 1 is 388. Though the combining task and the adverbial-headword structure witness the largest number of WO errors (103 and 150 respectively), it is the revising task and the attributive-headword structure that account for the largest percentage of WO errors (53.33% and 37.07% respectively). The multiple choice task has the smallest number of errors (42) while the matching task has the lowest percentage of errors (27%). The subject-verb structure has both the smallest number and percentage of errors (4 and 26.67% respectively). As previously explained, in general one question tests one WO structure, but five questions (one in the combining task and four in the translation task) cover two testing points each.

Figure 5. 19 Level 2's Number and Percentage of WO Errors in the Five Tasks

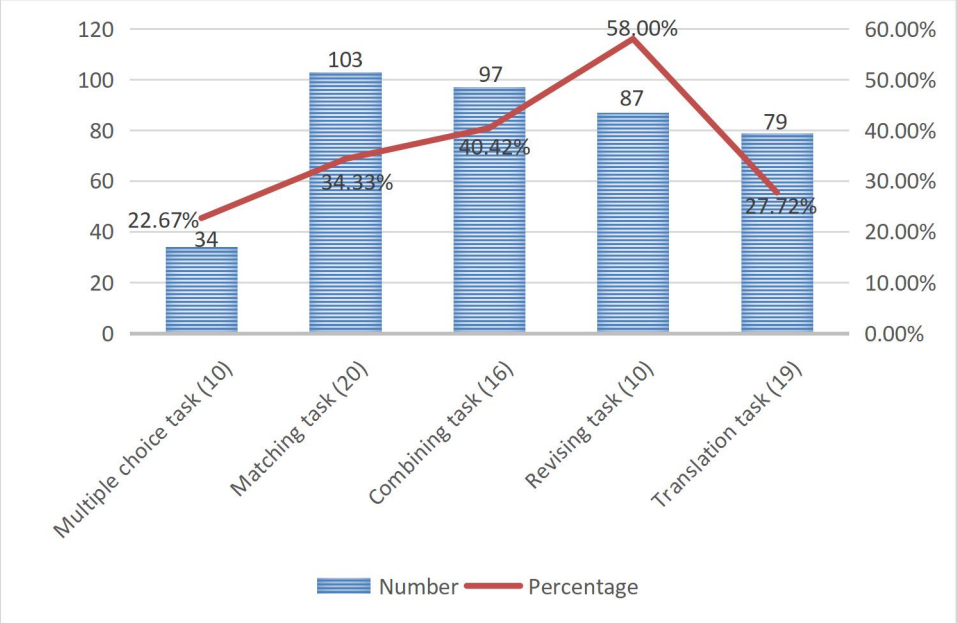
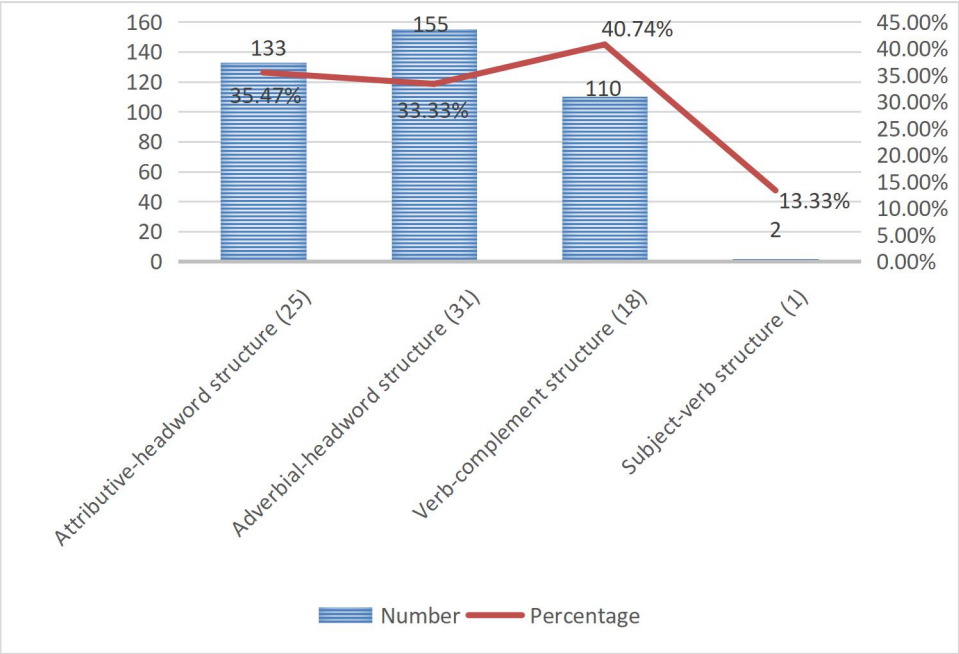


Figure 5. 20 Level 2's Number and Percentage of WO Errors in the Four WO Structures



According to Figures 5.19 and 5.20, Level 2 has a total of 400 WO errors. The matching task and the adverbial-headword structure have the largest number of errors (103 and 155 respectively), but it is the revising task and verb-complement structure that occupy the highest ratio of WO errors (58% and 40.74% respectively). By contrast, the multiple choice task sees the least errors in quantity and percentage (34 and 22.67% respectively), and the same to the subject-verb structure (2 and 13.33% respectively).

Figure 5. 21 Level 3's Number and Percentage of WO Errors in the Five Tasks

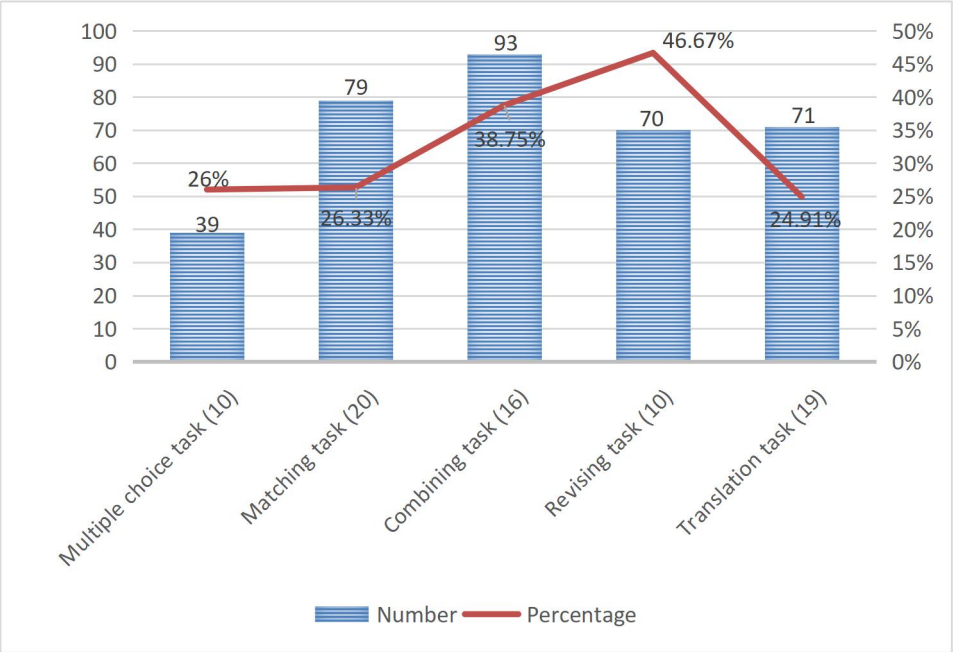
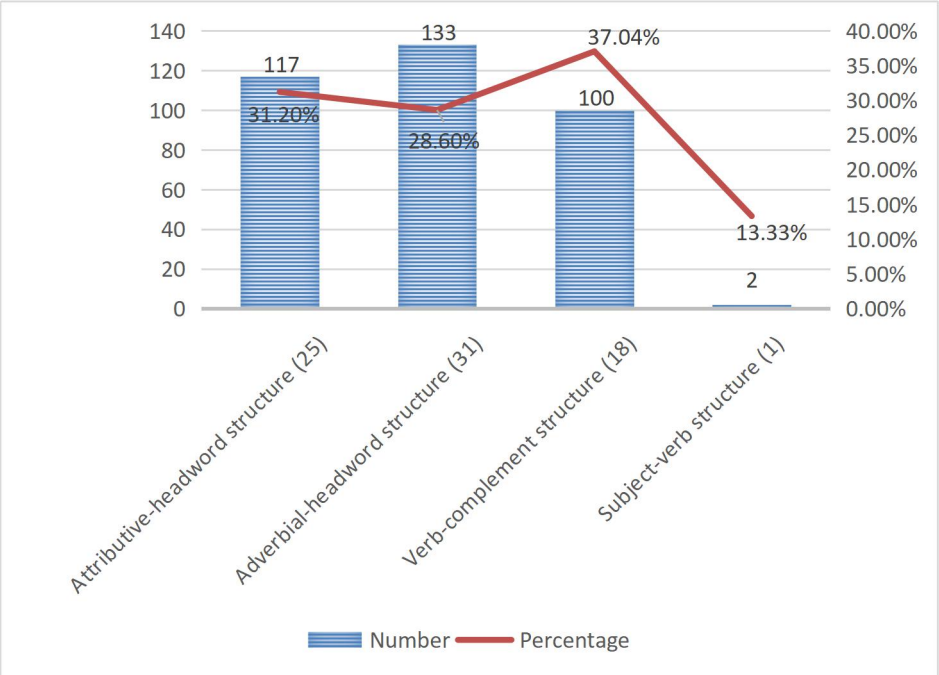


Figure 5. 22 Level 3's Number and Percentage of WO Errors in the Four WO Structures



According to Figures 5.21 and 5.22, the overall number of WO errors in Level 3 is 352. The combining task has the largest number of errors 93, while the revising task sees the largest percentage of WO errors 46.67%. The adverbial-headword structure accounts for the largest number of errors 133 whereas the verb-complement structure has the largest percentage of errors 37.04%. Like Level 1 and Level 2, Level 3 also sees the smallest number of WO errors in the multiple choice task (39). However, it is the translation task that possesses the lowest ratio of errors 24.91%. Again, the subject-verb structure has the least quantity and percentage of errors (2 and 13.33% respectively).

5.6 Comparison of the L2 Groups' Number and Percentage of Word Order Errors

The figures below illustrate the L2 groups' overall number and percentage of WO errors in each task and WO structure and make a relevant comparison among these three levels.

Figure 5. 23 L2 Groups' Number of WO Errors in the Five Tasks

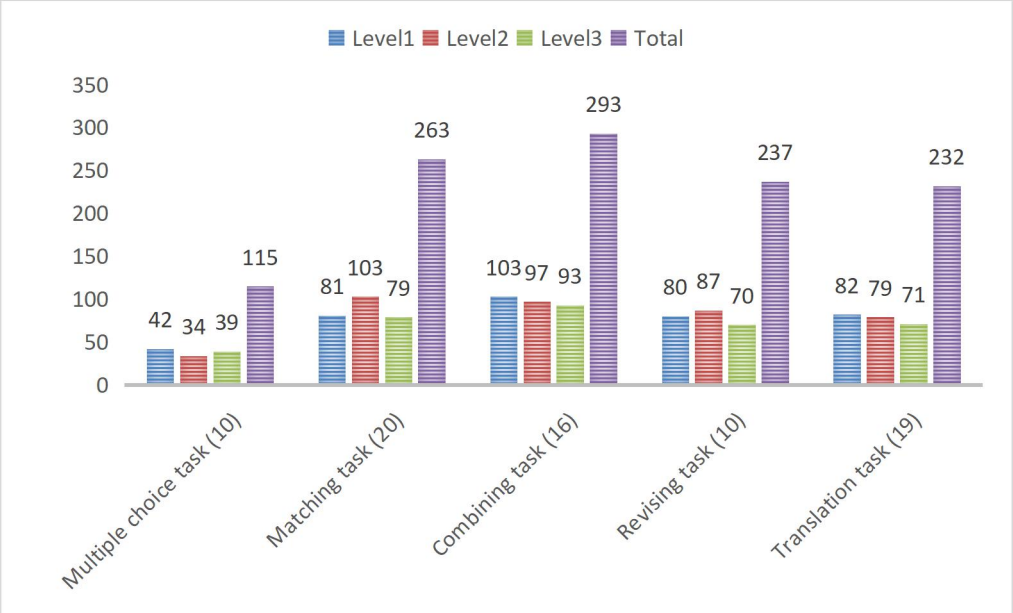
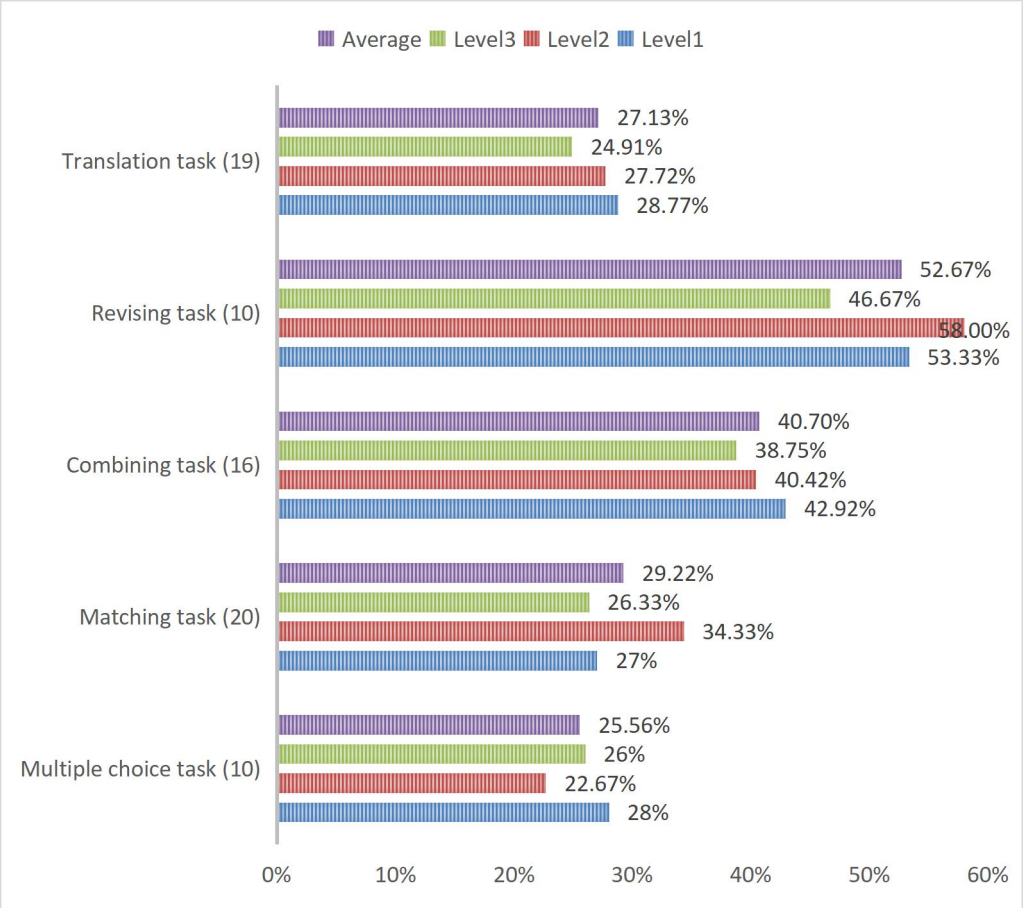


Figure 5. 24 L2 Groups' Percentage of WO Errors in the Five Tasks



Figures 5.23 and 5.24 respectively manifest the L2 groups' number and percentage of WO errors in the five tasks. In the multiple choice task, Level 1's number and percentage of errors rank first (42 and 28% respectively) while Level 2 has the least (34 and 22.67% respectively), and Level 3 ranks in the middle (39 and 26% respectively). For the matching task, Level 2 accounts for the largest number and percentage of errors (103 and 34.33% respectively) while Level 3 has the least (79 and 26.33% respectively), with Level 1 ranking in the middle (81 and 27% respectively). The largest number and percentage of errors concerning the combining task lie in Level 1 (103 and 42.92% respectively), followed by Level 2 (97 and 40.42% respectively) and then Level 3 (93 and 38.75% respectively). For the revising task, Level 3 does the best, with 70 errors and an error rate of 46.67%, while Level 2 owns the largest number and percentage of errors (87 and 58% respectively), with Level 1 coming in the middle (80 and 53.33% respectively). As for the translation task, there are no big differences among these three levels' performance, with Level 3 being the best (71 and 24.91%

respectively), Level 2 the second (79 and 27.72% respectively) and Level 1 the last (82 and 28.77% respectively).

Figure 5. 25 L2 Groups' Number of WO Errors in the Four WO Structures

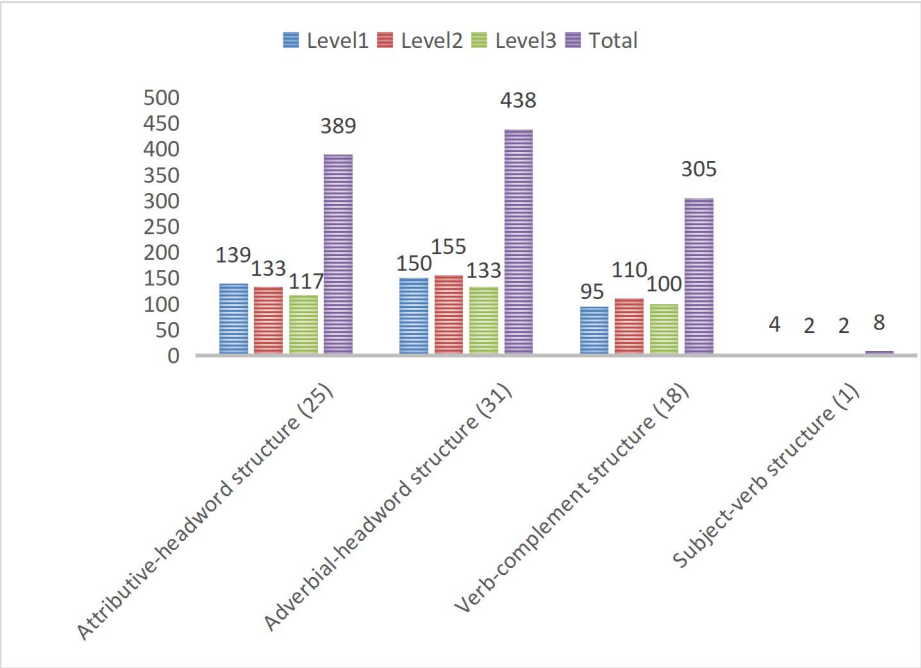
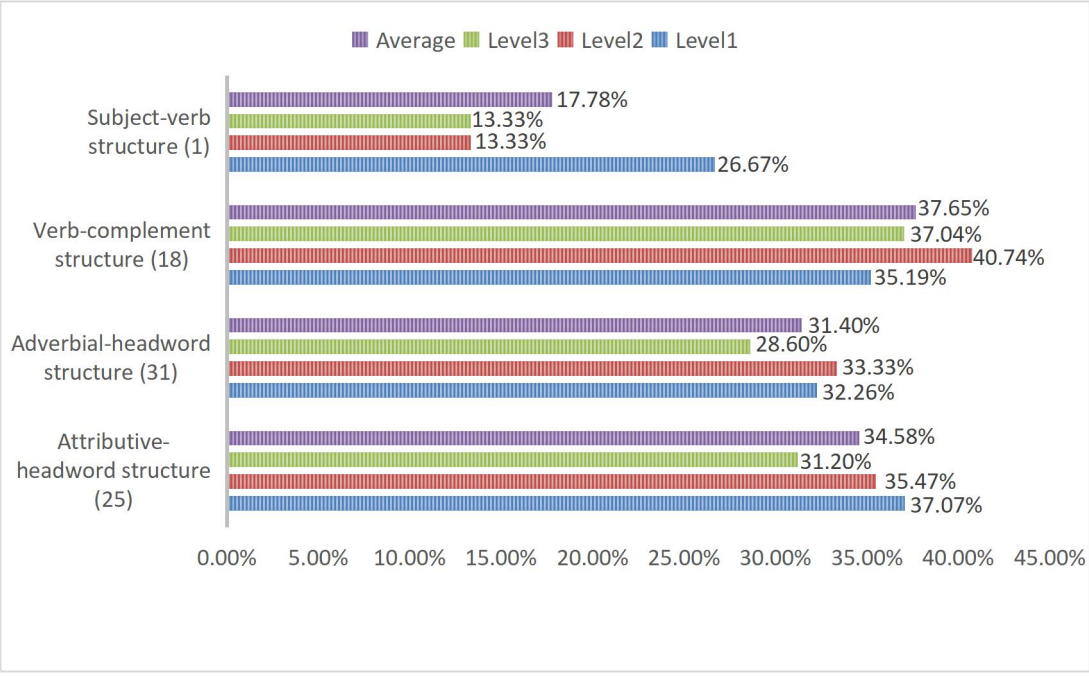


Figure 5. 26 L2 Groups' Percentage of WO Errors in the Four WO Structures



Figures 5.25 and 5.26 respectively show the L2 groups' number and percentage of WO errors in the four WO structures. Concerning the attributive-headword structure, Level 1 accounts for the largest number and percentage of errors (139 and 37.07% respectively) while Level 3 has the least (117 and 31.2% respectively), with Level 2 coming in the middle (133 and 35.47% respectively). For the adverbial-headword structure, Level 2 owns the largest number and percentage of errors (155 and 33.33% respectively), followed by Level 1 (150 and 32.26% respectively) and then Level 3 (133 and 28.6% respectively). In the verb-complement structure, Level 2 has the largest number and percentage of errors again (110 and 40.74% respectively), while Level 1 has the least (95 and 35.19% respectively) and Level 3 ranks in the middle (100 and 37.04% respectively). The subject-verb structure sees the same number and percentage of errors in Level 2 and Level 3 (2 and 13.33% respectively) and the largest in Level 1 (4 and 26.67% respectively).

From an overall perspective, though the combining task sees the largest number of word order errors (293) in the three levels, it is the revising task that has the highest average error rate (52.67%), and the multiple choice task is the part where students have made the least number and percentage of WO errors (115 and 25.56% respectively). By contrast, the adverbial-headword structure accounts for the largest amount of errors (438) whereas the verb-complement structure owns the highest ratio of errors (37.65%), and the subject-verb structure has the least number and lowest percentage of WO errors (8 and 17.78% respectively).

Based on the data above, we can come to a conclusion that the revising task is a relatively difficult task for all the three levels and the verb-complement structure is the hardest to learn since its average error rate is the highest (37.65%). Furthermore, the combining task proves to be harder than the translation task for L2 learners, which is out of the expectation of the researcher. Actually, even the matching task has a higher error rate than the translation task, so the difficulty degree regarding the five tasks basically increases from the multiple choice task (25.56%), the translation task (27.13%), the matching task (29.22%), the combining task (40.7%), to the revising task (52.67%). With respect to the WO structures, the difficulty degree increases from the subject-verb structure (17.78%), the adverbial-

headword structure (31.4%), the attributive-headword structure (34.58%), to the verb-complement structure (37.65%).

5.7 Summary

This chapter has presented the general results of the L2 groups and the control group in terms of task types and WO structures.

The multiple choice task asks students to choose an appropriate answer from four similar phrases or clauses, assessing students' application of WO related to the attributive-headword, adverbial-headword and verb-complement structures. The L2 groups' accuracy rate in this task is the highest, reflecting that most participants can distinguish between the given four choices and have relatively fewer problems in this task.

The matching task asks participants to select a correct position for a given word or phrase to complete the sentence, investigating students' grasp of markers of attributive, adverbial and complement, negation of the adverbial-headword structure and verb-complement structure, and the topic-comment structure, which is a special pattern of the subject-verb structure. The results of this task reveal that a certain amount of students have problems with the position of the attributive marker '的' (de) if there are multiple attributives in a sentence. In addition, students may confuse the use of adverbials with complements. The accuracy rate of this task is the second highest.

The combining task requires students to reorganise a group of disorganised words/phrases into a Chinese sentence with correct WO. It mainly examines students' application of multiple attributives and adverbials, complements of time duration and so on, being the second hardest task for participants. Since CWO can be flexible, an English interpretation is provided for each disorganised sentence so as to regulate students' responses. The results of this task reflect that a great number of students have problems with the WO of multiple adverbials and complements of time duration.

The revising task turns to be the hardest for the participants as it sees the highest WO error rate. There are ten Chinese sentences in this task and each sentence contains a WO problem. Without adding or deleting any constituents, respondents just need to move a particular word or phrase to correct the sentence. This task is adopted to examine students' ability of detecting and correcting WO errors. The position of phrasal attributives, descriptive attributives, simple adverbials and complements are covered in this task.

The translation task asks participants to translate fifteen English sentences into Chinese and relevant word/phrase explanations are provided for students' reference. It is assumed that the translation task may be a great challenge for the English-speakers. However, the accuracy rate of this task ranks in the middle and several students have achieved high scores in it. The translation task mainly investigates WO related to phrasal attributives, multiple attributives and adverbials, the ba construction, complements of time duration and so on.

The verb-complement structure is the hardest for participants, followed by the attributive-headword structure, the adverbial-headword structure and the subject-verb structure.

Chapter 6
Discussion of L2 Learners' Word Order Errors

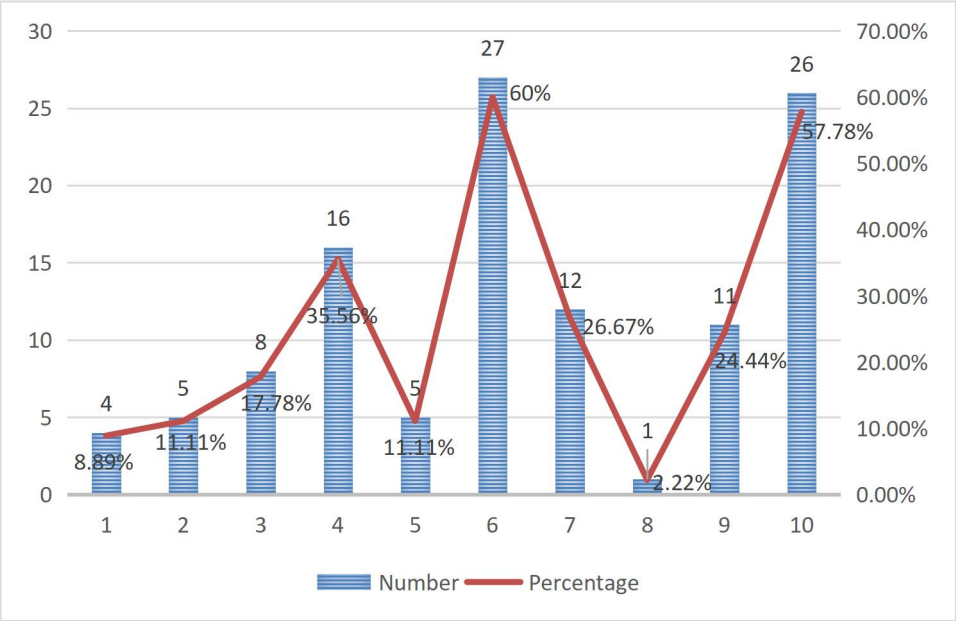
After presenting data about participants' performance in the five tasks and four WO structures, this study is now going to focus on the specific WO errors made by L2 learners and figure out the relevant factors and/or reasons behind these errors, so as to deal with two of the research questions: What kinds of WO errors do L2 Chinese learners often make when acquiring the primary Chinese structures? and, What are the main causes of L2 learners' WO errors?

Considering the limited space and representativeness, this part mainly discusses questions that each sees ten errors or more. Among the three levels' separate number of WO errors in each task, the least number of errors is 34, made by Level 2 students in the multiple choice task (referring to Figure 5.23). The multiple choice task contains ten questions altogether, so on average each question in this task sees 3.4 errors from Level 2. This means that among each levels' number of WO errors in each task, the minimum average of WO errors per question is 3.4. Applying this figure to all three levels, namely, multiplying 3.4 by 3, we can infer that as a whole, the L2 groups' minimum average of WO errors per question in the questionnaire is 10.2. Therefore, this study adopts ten as the benchmark for error analysis, aiming to cover questions that are problematic for L2 learners as many as possible. It is hoped that the chosen questions from each task can shed light on the general WO problems and challenges that English-speaking students may encounter when learning Chinese as a foreign language.

6.1 L2 Groups' Results in the Multiple Choice Task

The multiple choice task has ten questions and the figure below shows the L2 groups' overall quantity and percentage of errors in each question of this task.

Figure 6. 1 L2 Groups' Overall Number and Percentage of WO Errors in Each Question of the Multiple Choice Task



According to Figure 6.1, Question 6 sees the largest number of errors (27), closely followed by Question 10 (26). Questions 4, 7 and 9 have 16, 12 and 11 errors respectively. The error analysis starts from questions with more WO errors and then follows the ascending order of each question's serial number. Discussions of other tasks also follow this order.

6. 昨天我哪儿都没去，就在屋子里_____。

A.一整天看了书　　B.看书了一整天

C.书看了一整天　　D.看了一整天书

[一整天：a whole day]

A-21; B-5; C-1; **D-18**[7]

Question 6 mainly tests the positioning of complements of quantity, to be more specific, complements of time duration. In this question, there are four

[7] The figure after each option denotes the number of participants who have chosen that option and the option in bold is the correct one.

options with the same characters but in different WO, and students need to decide the right sequence of the verb ‘看’ (read), the object ‘书’ (book), and the complement of quantity ‘一整天’ (a whole day). As demonstrated previously, the complements should be placed after the verb headword, so Option A can be ruled out. Twenty-one students chose A. It seems that these students have confused the usage of complements with adverbials. In this sentence, ‘一整天’ should be used as a complement to emphasise the duration of the act ‘看’. Although ‘一整天’ can also be used as an adverbial in this sentence, it needs to be placed at the beginning of the second clause, namely in front ‘就在屋子里...’ (just in the house).

Also, five participants chose Option B, which may be a result of L1 transfer. The first error of Option B lies in the position of ‘了’ (le), which is an auxiliary word in Chinese. Usually, when ‘了’ is used to suggest the completion of an act, it should be placed immediately after the verb; therefore, in this sentence it should be ‘看了书’ instead of ‘看书了’. In addition, the position of the quantifier ‘一整天’ is also incorrect as it should precede the noun ‘书’. With regard to Option C, the object ‘书’ is placed before the verb ‘看’, which is against the verb-object structure. Only one student chose C, indicating that most learners had grasped WO of the verb-object structure. Although the WO of Option C is syntactically acceptable when treated as a topic-comment construction, it is not appropriate in this context because ‘书看了一整天’ (a book has been read for a whole day) fails to refer to the subject ‘我’ (I) of the first clause, and semantically speaking, the second clause needs to point out the action of the subject ‘我’. For the correct answer D, when a complement is adopted to suggest quantity, if the object is a general noun, the complement should be placed between the verb and the object (Lu, 1997; Liu et al., 2001). Or, if the focus is divided between the object and the complement of time duration, which means if the construction is bifocal, then the verb is repeated after the verb-object structure and the complement of time duration follows the repeated verb (Yip and Rimmington, 2016, p.136). For instance, in this question we can also say ‘看书看了一整天’ (read a book for a whole day). As Chinese complements do not have an exact equivalent in English, along with its own complexity, students may find it challenging to deal with the position of Chinese complements, especially the positional relationship between the complement and the object.

10. Mary 对中国的历史很熟悉，_____。

A.也对中国的政治非常了解　　B.对中国的政治也非常了解

C.对中国的政治非常了解也　　D. None of the above

[熟悉：be familiar with; 历史：history; 政治：politics]

A-14; **B-19**; C-0; D-12

Question 10 examines the use of the adverb ‘也’ (also), which should be placed before the verb, so Option C can be ruled out. No participants chose C, indicating that nearly all students were clear about the basic position of ‘也’ in Chinese, so they had not been influenced by their L1 use of ‘too’, which is usually placed at the end of a sentence in English. For Option A, the adverb ‘也’ is at the beginning of the clause, which is pragmatically unnatural though grammatically acceptable. To be specific, if ‘也’ precedes the adverbial of target ‘对中国的政治’ (towards China’s politics), the verb of the first clause should be the same as the second clause because the second verb is what ‘也’ truly stresses. Fourteen participants chose A, manifesting that although these L2 learners understood that adverbials should be placed before the headword, they were confused by the modification scope of ‘也’. Option D is designed as another misleading choice to check whether students have grasped the use of ‘也’. Twelve students chose D, including five Level 3 students, three Level 2 students and four Level 1 students. This proved that a certain number of L2 learners regardless of their level had not learned the correct use of adverb ‘也’.

4. 我以为一切都已经过去，可是_____。

A.我还是放不下这件事十年了　　B.十年了我还是放不下这件事

C.十年了我放不下这件事还是　　D.我放不下这件事还是十年了

[一切: everything; 过去: has been over; 放不下: unable to let it go]

A-12; **B-29**; C-1; D-3

Question 4 involves the position of the time-duration expression ‘十年了’ (ten years + le) and the adverb ‘还是’ (still); both should be placed before the headword ‘放不下’ (unable to let it go) as adverbials. Thus Options A, C and

D can all be excluded. Twelve students chose Option A, which might be due to the influence of their L1 as English tends to put the expression ‘after ten years’ at the sentence’s end in this context. Among students who chose A, six were from Level 1, three from Level 2 and three from Level 3. It seems that Level 1 students have undergone more negative L1 transfer here than the other two levels. Three students chose D and one chose C; it might be because they had not been familiar with the use of adverb ‘还是’ or they had not fully understood the meaning of this sentence.

7. 他明天_____。

A.就回家去　　B.就回去家

C.去回家就　　D.就去回家

A-33; B-7; C-1; D-4

Question 7 aims to examine the position of complements of direction. Seven students chose B, which is a highly confusing option because ‘回去’ (go back) is a verbal expression frequently used in Chinese. However, when ‘回去’ takes an object, the object should be placed in the middle of ‘回去’ as ‘回’ is the verb while ‘去’ is the complement that suggests the direction of ‘回’. According to Lu (1997) and Guo (2000), objects of location must be placed between the verb and the directional complement. Therefore, ‘家’ (home), as an object of location, should be placed in the middle of ‘回去’. Students who chose B took it for granted that the object could be added directly after the verb-complement structure, suggesting that these students had not mastered the use of complex directional complements and they tended to overgeneralise Chinese grammatical rules. One student chose C, indicating that this student had not got the point of this question. Four participants who chose D misinterpreted this sentence as a question that tests the future tense, because Option D literally means somebody is going to return home. However, this option does not make sense and violates the convention of Chinese expressions because ‘去’ should be used as a directional complement instead of a verb in this sentence.

9. 我喜欢去亚洲旅游，_____。

A.三年前我第一次去中国　　B.我去中国第一次三年前

C.第一次我去中国三年前　　D.三年前我去中国第一次

[亚洲：Asia; 旅游：travel]

A-34; B-1; C-0; D-10

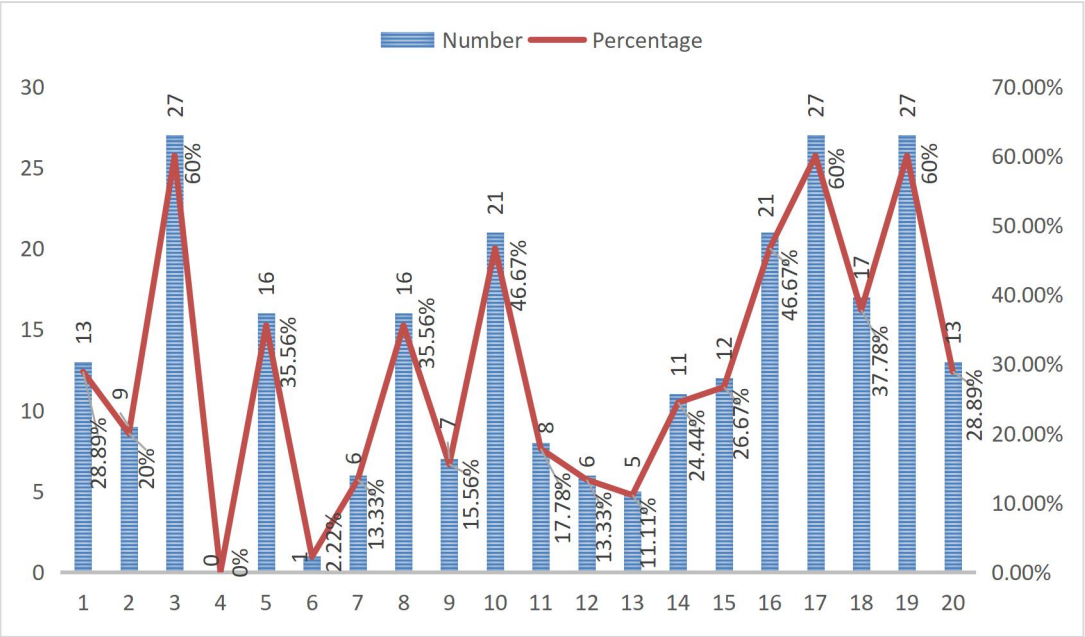
Question 9 involves adverbials of time and quantifier, namely '三年前' (three years ago) and '第一次' (the first time); both should precede the headword, so Options B, C and D can all be excluded. One student chose B, no one chose C and ten students chose D. Those who chose B or D tended to put '第一次' after the headword, which might be due to the influence of their L1. However, for participants who chose D, though they made a mistake about the position of the quantifier, they knew that the adverbial of time should be put before the headword. This reflects that students' interlanguage system, though incomplete, is experiencing wave-like development, and calls for constant practice and instruction.

On the whole, the multiple choice task deals with one attributive-related testing point, five adverbial-related testing points and four complement-related testing points. Among the five questions that see ten errors or more each, two are related to complements and three are concerned with adverbials. The negative transfer from the native language, incomplete grasp of certain Chinese grammatical rules and overgeneralisation of Chinese grammatical rules are the main reasons for WO errors in this task.

6.2 L2 Groups' Results in the Matching Task

The matching task has 20 questions and the figure below shows the L2 groups' overall quantity and percentage of errors in each question of this task.

Figure 6. 2 L2 Groups' Overall Number and Percentage of WO Errors in Each Question of the Matching Task



According to Figure 6.2, Questions 3, 17 and 19 witness the same and also the largest number of errors (27). Questions 10 and 16 have the second largest number of errors (21). Question 18 sees 17 errors. Questions 5 and 8 both involve 16 errors each. Questions 1 and 20 both have 13 errors each. Questions 15 and 14 see 12 and 11 errors separately.

3. 我和我 A 新 B 同学要去老师 C 家吃晚饭。　　的 （ ）

A-18; B-13; C-14

Question 3 examines the placement of the attributive marker '的' (de). Thirteen students chose B and 14 students chose C. As '的' can be collocated with each of the three attributives '我' (I), '新' (new) and '老师' (teacher), students may be uncertain about the exact position of '的'. For those who chose B, they believed that '的' should be placed after '新' to suggest modification and '老师家' (teacher's home) was a whole that did not need the attributive marker in between. These students might know that '的' is generally placed after the last attributive if there are multiple attributives. However, their application of this rule does not fit with this sentence because when a monosyllabic adjective is used as a modifier, it usually takes no

attributive marker before the headword (Tiee, 1986, p.124). Thus, ‘的’ should follow ‘我’ to indicate a possessive relationship, meaning ‘我的’ (my). For those who chose C, they treated ‘我新同学’ (my new classmate) as a whole that needs no attributive marker whereas the latter nominal expression ‘老师家’ needs ‘的’ in between to suggest the possessive relationship. These two kinds of errors are mainly due to the divergence between Chinese and English as ‘的’ is unique to Chinese and has no exact equivalent in English. As a result, English-speaking learners find it hard to identify the exact position of the attributive marker.

In fact, the placement of ‘的’ is always a tricky point for L2 learners to acquire (Ye, 2019). According to Yip and Rimmington (2016, p.77), for qualifying adjectives, the presence of the descriptive indicator ‘的’ depends on whether the adjective is monosyllabic or polysyllabic. In general, monosyllabic adjectives have greater collocational restrictions and thus greater structural bonds with the headwords they qualify. Therefore, monosyllabic adjectives are usually put directly before the headword without ‘的’. Furthermore, when the modifier is closely related to the headword, ‘的’ can be omitted (Ross and Ma, 2006). In this sentence, ‘新’ has a close collocation relationship with its headword ‘同学’ and the same goes for ‘老师’ and ‘家’. Therefore, these two groups of words do not need ‘的’ in between. By contrast, for Option A, ‘我’ plus ‘的’ functions as a possessive pronoun in Chinese. Therefore, placing ‘的’ at the position of Option A is the best choice. Apart from general grammatical rules, semantic and rhythmic factors should also be considered to produce natural Chinese sentences.

17. 他是 A 我来中国后 B 认识的 C 中国朋友。　　第一位（ ）

A-1; B-26; **C-18**

Question 17 tests the placement of the quantifier attributive ‘第一位’ (the first). According to Liu et al. (2001) and Qiao (2011), the general WO rules of multiple attributives in Chinese include: (1) attributives with ‘的’ (de) precede those without ‘的’; (2) within multiple attributives with ‘的’, the order follows possession, time, location, phrases/clauses, adjectives related to state, etc., and non-possession nouns; (3) within multiple attributives without ‘的’, the

order follows possession, quantifiers, adjectives related to property/nature, etc., and non-possession nouns. In this sentence, there are three attributives, ‘我来中国后认识’ ([a friend] acquainted after I came to China), ‘第一位’ (the first + measure word), and ‘中国’ (China) in front of the headword ‘朋友’ (friend). Since ‘我来中国后’ (after I came to China) is a clausal adverbial suggesting time and location, thus ‘第一位’ should not occur in front of it. Only one student chose Option A. Moreover, ‘认识的’ (acquaint + attributive marker ‘de’) is a verbal phrase that should be closely modified by the clausal adverbial ‘我来中国后’, which restricts the time and location scope of the action ‘认识’. Also, Tiee (1986, p.130) claims that a clausal modifier should usually be placed at the beginning of the noun phrase and followed by the attributive marker ‘de’. So the clausal modifier ‘我来中国后认识’ should take the attributive marker ‘的’ and precede ‘第一位’ to indicate the time and location background of the sentence.

Admittedly, the quantifier has a relatively flexible position in Chinese as in many cases it can be placed before or after the combined attributive (Fang, 1992), such as the example listed in Chapter 3, ‘我们学校新修的一座食堂’/ ‘我们学校一座新修的食堂’ (a newly built canteen in our school). The difference lies in that when the quantifier is placed after the combined attributive, the combined attributive turns to be restrictive. In contrast, when the quantifier is placed before the combined attributive, the combined attributive is prone to be descriptive (Fang, 1992). In this question, the clause ‘我来中国后认识的’ functions as a restrictive attributive that denotes the time and location background of the nominal phrase ‘中国朋友’ (Chinese friend). As the semantic association is a key factor for sentence sequencing in Chinese (Yip and Rimmington, 2016), C is the best choice for this question.

Obviously, few students had undergone L1 transfer in this question and most of them knew that the quantifier should be placed after the time and location-related expression. However, many students still had confusion over the exact placement of quantifiers when there are multiple attributives as 26 participants chose B, placing the quantifier in the middle of the clausal attributive. The reason may be that these L2 learners’ limited grammatical knowledge impedes their understanding of the sentence structure.

19. A 他总是 B 发脾气 C。　　因为一些小事（ ）

[发脾气: lose one's temper; 小事：trifles]

A-23; **B-18**; C-4

Question 19 examines the position of the phrasal adverbial '因为一些小事' (because of some trifles). First of all, adverbials seldom occur after the headword. Only a few literary or oral expressions may put the adverbial at the sentence's end. Therefore, Option C is not appropriate. Four students chose this option, which might be caused by L1 transfer as English usually states the reason after the result. Twenty-three participants chose A. Generally, except for adverbials of time and location, adverbials should be placed after the subject instead of at the beginning of a sentence. And if the adverbial precedes the subject for rhetorical purposes, it usually takes a comma to indicate the tone and pause (Pan, 1997). Therefore, '因为一些小事' should be placed right before the headword '发脾气' (lose one's temper) to state the reason. For students who chose A, although they knew that this phrase should precede the headword, their understanding of its usage as an adverbial was not comprehensive and thus they overgeneralised the positioning rule of adverbials.

10. 他忙得 A 时间 B 也没有 C。　　一点儿（ ）

A-24; B-17; C-4

Question 10 involves the position of quantifier attributives. In this sentence, the verbal phrase after '他忙得' (he is busy + complement marker de) functions as a complement indicating the state of the headword '忙' (busy), and within this complement, the quantifier '一点儿' (a little bit) is an attributive qualifying the noun '时间' (time), suggesting the small amount of '时间'. Therefore, the correct answer is A. Seventeen students chose B and four students chose C. However, placing '一点儿' at B does not make sense in Chinese, while placing it at C is unable to deliver the accurate semantic information either. The reason why participants chose B or C might be that

they treated ‘一点儿’ as a numeral referring to ‘时间’ and was unaware that ‘一点儿’ should be a quantifier modifying ‘时间’.

16. 如果你现在很忙 A，我们 B 再谈 C。　　一会儿（ ）

[谈：talk; 一会儿：a while]

A-1; **B-24**; C-20

Question 16 asks participants to determine the position of the time expression ‘一会儿’ ([after] a while), which should be placed at Option B as an adverbial to indicate a short period of time later. Twenty students chose C and only one student chose A. Without considering the context of the former clause, ‘一会儿’ can be placed at Option C indeed, which means the discussion can be continued for another while. Nevertheless, the former clause has indicated the context ‘If you are very busy now’; thus, ‘一会儿’ can only be positioned at B, meaning the talk has to be paused and will be continued later on. Those who chose C did not take the context into consideration, so their answer was semantically inappropriate. Therefore, the importance of context should also be emphasised in CWO teaching.

18. A 做 B 些运动 C 有利于身体健康。　　多（ ）

A-28; B-13; C-4

Question 18 tests the position of the adjective ‘多’ (more/many), which should be used as an adverbial to qualify the verb ‘做’ (do). Therefore, A is the right option. Thirteen students chose B. However, placing ‘多’ in Option B is exactly the way English expresses ‘do more...’ and in this expression, ‘more’ is used as an attributive modifying the object of ‘do’ instead of as an adverbial modifying ‘do’ itself. It can be inferred that students who chose B were under the influence of their native language. Yet, the distribution of participants choosing B is exceptional as three of them are from Level 1, eight from Level 2 and two from Level 3. Compared with Level 2, Level 1 saw less participants experience negative L1 transfer in the positioning of ‘多’. After confirming with Level 1’s participants, the researcher understood

that it was because Level 1 students had recently learned and practised similar language points in their year-abroad study, so they had a fresher and deeper impression of the positioning of ‘多’. It seems that frequent practice is necessary for L2 learners to consolidate their knowledge and facilitate their interlanguage development.

Four students chose Option C, in which ‘多’ qualifies the second verb ‘有利于’ (be beneficial for) instead of ‘做’. Although ‘多’ is a simple adjective used as an adverbial here, it is still a challenge for L2 learners to decide the correct position of ‘多’ as some respondents may be hesitating between Option A and Option B. Therefore, instructional attention should not only be paid to the complex aspects of WO but also to linguistic points that may seem simple but are actually confusing, such as the positioning of single adjectives like ‘多’ (many) and ‘少’ (little), which can be challenging for L2 learners when they are used as adverbials. Particularly when the verb takes an object, students may be unsure whether to place ‘多’/‘少’ before or after the verb.

5. 他勇敢 A 、自信 B 快步 C 走上讲台。　地（ ）

[勇敢: bravely; 自信: confidently; 快步: walk fast; 讲台: platform]

A-4; **B-29**; C-12

Question 5 examines the placement of the adverbial modification marker ‘地’ (de), which is usually placed after the last adverbial when there are multiple adverbials (Tiee, 1986). Twelve students chose Option C, which seems to comply with the general rule of the positioning of ‘地’. Nevertheless, in this sentence, ‘地’ should be placed at Option B because the third adverbial ‘快步’ (quick step) is a nominal phrase that generally takes no adverbial markers behind to modify the verb (Liu et al., 2001). Though these students knew that ‘地’ is generally placed after the last adverbial, they overgeneralised this grammatical rule and lacked an adequate grasp of the adverbial marker’s usage. Four students chose Option A, which is against both the syntactic and rhythmic rules in Chinese.

8. 别担心，我 A 完全 B 把这件事 C 记在心里。　　没有 （ ）

[担心: worry; 完全: entirely]

A-10; **B-29**; C-6

Question 8 asks students to choose a correct position for the negation expression '没有' (do not have) in the ba construction. Usually, the negative form of a ba construction is to put the negation expression before the preposition '把' (ba), rather than before the verb of the sentence (Tiee, 1986). Therefore, Option C can be excluded. Between A and B, the difference lies in the degree of negation. A suggests a part of negation while B is a complete negation, because '没有完全' means 'not completely' while '完全没有' means 'not at all'. According to the first part of this sentence '别担心' (don't worry), the second part is going to completely negate the ba construction, namely 'I have not borne this in mind at all', instead of a part of negation. Therefore, B is the correct answer. Ten participants chose A and six chose C. For those who chose A, which is semantically incorrect, they failed to distinguish between complete negation and partial negation. The reason might be that these participants did not take the context into consideration. For those who chose C, they did not realise that the negation of the ba construction should be placed before '把', and this might be due to students' underuse of the Chinese ba construction.

1. 上个星期 A 从他那儿借来 B 的 C 小说，我已经还给他了。 那本 （ ）

A-10; B-3; **C-32**

Question 1 tests the placement of the determiner phrase '那本' (that + Chinese measure word), which functions as a single attributive. According to Tiee (1986, p.135), the determiner/demonstrative and quantifier are used to state the identity of the headword and suggest what the headword refers to. In this sentence, there are two attributives modifying the headword '小说' (novel), namely the clause '上个星期从他那儿借来的' (borrowed from him last week) and the determiner '那本'. According to Tiee (1986), the restrictive clause normally precedes the determiner/demonstrative and quantifier, so in

this sentence ‘那本’ should follow the restrictive clause ‘上个星期从他那儿借来的’ which defines the time and source information about the headword. Therefore, C is the best choice. Ten students chose A and three students chose B.

In fact, the position of determiner/demonstrative + measure word/quantifier is relatively flexible when there are multiple attributives. Ross and Ma (2006, p.54) conclude that noun modifiers consisting of determiners/demonstratives and quantifiers usually occur first when there are multiple modifiers, although they may be placed closer to the headword for emphasis or contrast purposes. In this sentence, ‘那本’ can actually occur at the beginning of the sentence, but it is not appropriate nor natural to place it between the time expression ‘上个星期’ (last week) and the verbal phrase ‘从他那儿借来的’ (borrowed from him) because these two phrases are closely associated to constitute a restrictive clause to modify the headword. And as the attributive marker ‘de’ is generally placed after the clausal attributive, Options A and B are incorrect. Regarding clausal attributives, they are always placed after the headword in English whereas in Chinese they always precede the headword. When there are multiple attributives, such as the combination of clause + determiner phrase in this question, the disparity between Chinese and English usually poses a great challenge to L2 learners.

20. 我 A 把这个消息 B 告诉家人 C。　　没有（）

A-32; B-13; C-0

Question 20 examines the negation of the ba construction like Question 8. Compared with Question 8, Question 20 is easier to cope with because there is no semantic obstacle in this question. Participants just need to decide whether to put the negation expression ‘没有’ (do not have) before or after the ba phrase. As explained in Question 8, negation occurs before the preposition ‘把’ (ba) instead of the verb (Tiee, 1986). Therefore, both C and B can be ruled out. Thirteen students who made errors in this question all chose B and four of them chose the wrong option C in Question 8. That is to say, these four students placed the negation after the ba construction and before the headword in both Question 8 and Question 20, indicating that

they had not figured out the positioning of the negation expression in the ba construction. Four students who correctly placed ‘没有’ in front of the ba construction in Question 8, though in a semantically inaccurate position, put ‘没有’ after the ba construction in Question 20, suggesting that their grasp of the ba construction’s negative form was not solid. These two questions indicate that some students may have no idea about the placement of the ba construction’s negation and some only have a vague understanding of it. As a special adverbial, the ba construction seems to be a challenge for L2 students and thus it is worthy of more attention in TCFL/TCSL.

15. 你可以找 A 有 B 同样兴趣 C 的人。　　和你（ ）

A-33; B-8; C-4

Question 15 involves the position of the prepositional phrase ‘和你’ (with you), which functions as an adverbial and should precede the verbal phrase ‘有同样兴趣’ (have the same interest). Therefore, both Options B and C can be excluded. For the eight students who chose B, they did not realise that ‘和你’ is a prepositional phrase that qualifies the verbal phrase ‘有同样兴趣’, and thus misplaced it after the verb. Four participants chose C; this choice may have been influenced by students’ L1 as English tends to put the prepositional phrase after the verbal phrase in this sentence, such as ‘You can look for people who have the same interest as you.’

14. 他慢慢地走 A 进 B 来 C。　　教室（ ）

A-4; **B-34**; C-7

Question 14 examines the positioning of the object in the verb-complement structure. Fang (1992) points out that most complements that suggest direction can be followed by location objects, but when it comes to ‘来’ (come) and ‘去’ (go), they cannot have location objects after them. Instead, the location object should be placed between the verb and ‘来’/‘去’. So in this sentence, the location object ‘教室’ (classroom) should be placed between the verbal phrase ‘走进’ (walk in) and the directional complement ‘来’. The

correct answer should be B. Four participants chose A while seven participants chose C. For those who chose A, they did not treat '走进' as a fixed verbal phrase but separated '走' (walk) and '进' (in) and regarded '进来' (come in) as a whole. On the one hand, although '走进' is composed of the verb '走' and the directional complement '进', it has gradually become an established verbal phrase that cannot be inserted into any objects (Fang, 1992). On the other hand, it is also reasonable to treat '进来' as a compound directional complement, yet the object of location still should be placed in the middle of '进来' instead of immediately after the verb. For those who chose C, they overgeneralised the grammatical rule of Chinese complements and directly put the location object after the directional complement. It is more likely for students from Level 1 and Level 2 to make such mistakes as they each have three students choosing C while Level 3 only has one participant choosing C. Thus, it seems that L2 students from the advanced level have a better understanding of Chinese directional complements.

In fact, Question 7[8] in the multiple choice task also examines the positional relationship between the directional complement and the location object. There are seven students altogether choosing to place the location objects directly after the directional complements in these two questions, but only two of them made the same mistake in both questions and these two students were from Level 1 and Level 2 respectively. It seems that after a certain period of study, most L2 students have learned more about the positional relationship between the directional complements and the location objects, and Level 3 does better than Level 1 and Level 2 regarding this point. Therefore, more practice and guidance on this aspect are necessary for Level 1 and Level 2 students.

11. 她 A 打扫 B 得 C 很干净。　　房间（）

A-37; B-5; C-3

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[8] 7. 他明天_____。

A.就回家去　　B.就回去家

C.去回家就　　D.就去回家

Although this question just has eight errors, as it is the only question adopting the subject-verb structure as a direct testing point, we can also have a brief look at it. This question examines the special pattern of the subject-verb structure: the so-called topic-comment construction. The correct position of ‘房间’ (room) is Option A. Five participants chose B and three participants chose C. In this sentence, ‘她房间’ (her room) is a special subject because it is not the performer of the act stated in the predicate part ‘打扫得很干净’ (sweep de very clean). In this case, ‘她房间’ can be regarded as a topic while the predicate part is a comment on it. This question is designed to see whether respondents will misread the special subject-verb structure as a verb-object structure. The result turns out that the major problem indeed lies in this confusion. Five respondents misused the subject ‘房间’ as the object of the verb ‘打扫’ (sweep) and three respondents mistreated ‘房间’ as the subject of ‘很干净’ (very clean). The reason why students chose B might be that they adopted the subject-verb-object sequence to cope with this question. However, they did not realise that the complement of state ‘很干净’ cannot directly follow the object. The right way is to repeat the verb ‘打扫’ after the object, namely ‘打扫房间打扫得很干净’. For students who chose C, it might be because they misread the complement marker ‘得’ as the attributive marker ‘的’ and thus regarded ‘她打扫’ as an attributive. In general, most participants have no problem with the subject-verb structure, as English and Chinese both observe the basic subject-verb WO.

To summarise, in this task there are 12 questions that each has ten errors or more. Among them, four are related to attributive-headword WO, seven are related to adverbial-headword WO, and one is related to verb-complement WO. Nearly 50% of the WO errors are correlated with the adverbial-headword structure, and around 39% of the errors are connected with the attributive-headword structure. The error rate of the verb-complement structure is not high in this task. In addition, this task includes one question that examines the subject-verb structure.

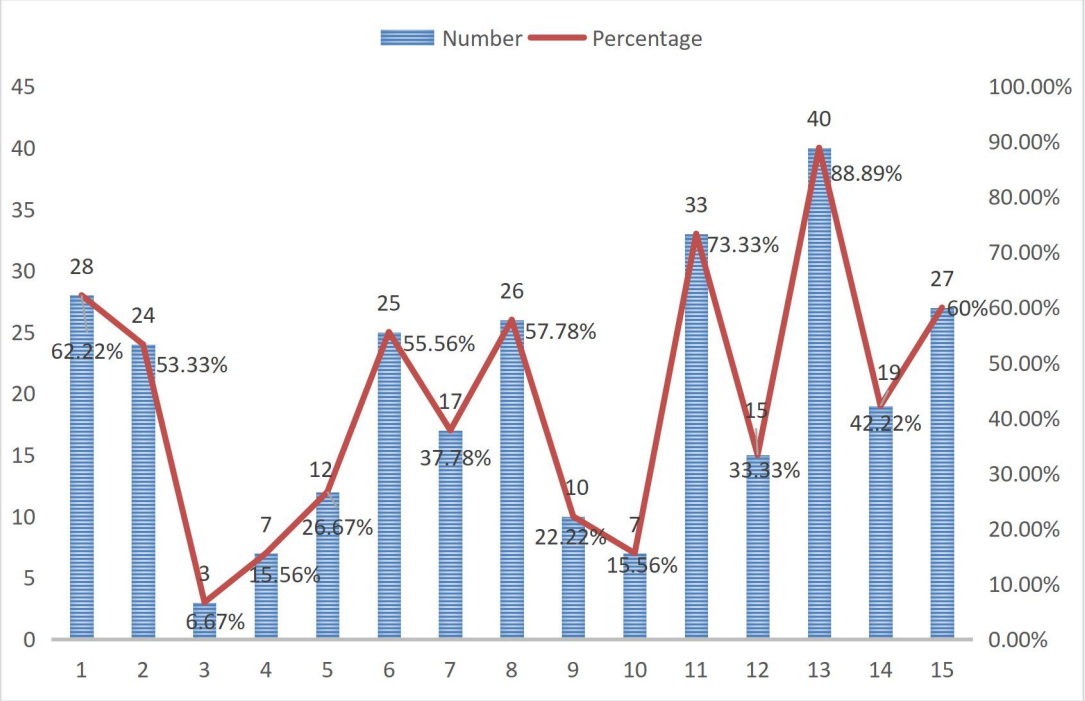
Furthermore, in the matching task, some errors may be grammatically acceptable but are semantically inaccurate because participants did not take the context into consideration; some errors are due to cross-linguistic influence, some are caused by the overgeneralisation of Chinese grammatical rules and some arise from the underuse of Chinese WO

rules/patterns. In brief, when the disparity between Chinese and English is greater, it is more likely that L2 learners will make errors, which is consistent with the Contrastive Analysis Hypothesis.

6.3 L2 Groups' Results in the Combining Task

The combining task includes 15 questions, and the figure below presents the L2 groups' overall number and percentage of errors in each question of this task.

Figure 6. 3 L2 Groups' Overall Number and Percentage of WO Errors in Each Question of the Combining Task



There are 293 errors in this task. According to Figure 6.3, Question 13 has the largest number of errors (40), followed by Question 11 (33), Question 1 (28), Question 15 (27), Question 8 (26), Question 6 (25), Question 2 (24), Question 14 (19), Question 7 (17), Question 12 (15), Question 5 (12) and Question 9 (10). Considering the flexibility of CWO, especially multiple

attributives and adverbials, all questions are provided with corresponding English translation and respondents are required to reorganise the sentence in accordance with the English note.

13. ①我 ②把 ③提出的 ④所有 ⑤同桌 (deskmate) Tom ⑥脱欧 (Brexit) ⑦的 ⑧关于 ⑨观点 ⑩记了下来。(I wrote down all the opinions about Brexit proposed by my deskmate Tom.)

Question 13 mainly tests the order of multiple attributives. According to Liu et al. (2001, p.494), the general sequencing of multiple attributives in Chinese sentences follows ① possessive nominals > ② locative words/temporal words > ③ quantifiers (followed by descriptive attributives) > ④ subject-verb phrases/verbs/verbal phrases/prepositional phrases > ⑤ quantifiers (preceded by restrictive attributives) > ⑥ descriptive modifiers that suggest opinion, age, size, colour, shape, etc. > ⑦ adjectives without 'de' and other descriptive nouns > ⑧ headword. In this question, the correct order is '我把同桌 Tom 提出的关于脱欧的所有观点记了下来' or '我把同桌 Tom 提出的所有关于脱欧的观点记了下来' (I wrote down all the opinions about Brexit proposed by my deskmate Tom). The underlined part is the multiple attributives modifying the headword '观点' (opinion). Fifteen Level 1 students, 13 Level 2 students and 12 Level 3 students made mistakes in this question, meaning that all students from Level 1 and most students from Level 2 and Level 3 had done it wrongly. It appears that the sequencing of multiple attributives is a big challenge for L2 learners, especially for the lower level.

For Level 1, one common problem lies in the position of the adjective '所有' (all). One participant produced a sentence that was the closest to the right WO: '我把同桌 Tom 提出的关于脱欧所有的观点记了下来'. This participant figured out the sequencing of multiple attributives but made a mistake in the position of the attributive marker '的' (de), which should be placed before '所有' because the previous attributive '关于脱欧' (about Brexit) is a prepositional phrase and should be followed by '的'. The possible reason why the participant put '的' after '所有' might be the negative transfer from L2. In other words, this participant overgeneralised the rule that the attributive marker in Chinese is usually placed after the last attributive when there are multiple attributives. Other improper responses include:

‘我把同桌 Tom 所有提出的关于脱欧的观点记了下来’,

‘我把同桌 Tom 的所有关于脱欧提出的观点记了下来’,

‘我把同桌 Tom 关于脱欧所有的提出的观点记了下来’,

‘我把所有的同桌 Tom 关于脱欧提出的观点记了下来’,

‘我把所有同桌 Tom 的提出的脱欧观点关于记了下来’,

‘我把所有提出的同桌 Tom 关于脱欧的观点记了下来’,

‘我把所有的同桌 Tom 提出的关于脱欧观点记了下来’,

‘我把所有关于脱欧同桌 Tom 提出的观点记了下来’.

Many Level 1 students confused the semantic modification relationship within the multiple attributives and thus made various errors.

For Level 2, two students who did right in this question produced the same sentence: ‘我把同桌 Tom 提出的所有关于脱欧的观点记了下来’. In this sentence, ‘所有’ is placed before the prepositional phrase ‘关于脱欧’, but it still modifies the headword ‘观点’ correctly because some quantifiers and adjectives have relatively flexible positions when there are multiple attributives in a Chinese sentence (Fang, 1992; Lu, 1997). The incorrect responses include:

‘我把所有同桌 Tom 提出的关于脱欧的观点记了下来’,

‘我把同桌 Tom 提出的关于脱欧所有的观点记了下来’,

‘我把同桌 Tom 所有提出的关于脱欧的观点记了下来’,

‘我把所有的同桌 Tom 关于脱欧提出的观点记了下来’,

‘把我同桌 Tom 提出的关于脱欧所有的观点记了下来’,

‘我把同桌 Tom 所有的关于脱欧提出的观点记了下来’,

‘我把同桌 Tom 关于脱欧所有的提出的观点记了下来’,

‘我把同桌 Tom 关于脱欧提出的所有观点记了下来’.

Again, the position of ‘所有’ is also the major problem in Level 2 participants’ responses. Moreover, like Level 1, three students from Level 2 also produced this sentence: ‘我把同桌 Tom 提出的关于脱欧所有的观点记了下来’,

with the only error being the position of '的' (de). It seems that the position of the attributive marker in a group of attributives can also be a challenge for L2 learners, so it is necessary to elucidate the positioning of both multiple attributives and the attributive marker in CWO teaching.

For Level 3, its three correct answers are the same as Level 2's, i.e. '我把同桌 Tom 提出的所有关于脱欧的观点记了下来'. The wrong responses include:

'我把所有同桌 Tom 提出的关于脱欧的观点记了下来',

'我把所有的同桌 Tom 关于脱欧提出的观点记了下来',

'我把同桌 Tom 所有关于脱欧提出的观点记了下来',

'我把所有同桌 Tom 关于脱欧的观点记了下来',

'同桌 Tom 所有关于脱欧提出的观点我把记了下来',

'我把同桌 Tom 关于脱欧提出的所有的观点记了下来',

'我把同桌 Tom 关于脱欧提出的观点记了下来',

'我把同桌 Tom 提出的所有脱欧的记了下来关于观点',

'我把 Tom 同桌提出的所有关于脱欧的观点记了下来'.

The last sentence '我把 Tom 同桌提出的所有关于脱欧的观点记了下来' has no problem with WO of the multiple attributives; however, it has a minor problem with the sequence of 'Tom 同桌' (Tom deskmate). In fact, '同桌' should precede 'Tom' as Chinese usually introduces one's identity first and then his name. Namely, the sequence is from general to specific, such as '我的弟弟杰克' (my younger brother Jack). This convention can be explained by the Whole-Before-Part Principle in Chinese, which states that 'a larger scope [should] precede a smaller scope in terms of space, time, amount, etc. amongst others' (Jiang, 2009, p.94). It is unexpected that this participant would make a mistake in the ordering of the simple appositive while doing well in the sequencing of complex multiple attributives.

Comparing all participants' wrong answers, it is obvious that many errors are overlapped among the three levels. These students have produced a variety of wrong sentences when dealing with multiple attributives, yet the main problem lies in the position of '所有'. Some put '所有' at the beginning of the

sentence, some put '所有' in front of the verb '提出' (propose), some put '所有' before the prepositional phrase '关于脱欧' (about Brexit), etc. Furthermore, the position of phrases like '关于脱欧' and '提出的' is also a problem repeatedly occurring in students' responses.

To summarise, all these errors can be divided into four categories. For the first category, '所有' is positioned before '同桌', for instance, '我把所有同桌 Tom 提出的关于脱欧的观点记了下来' and '我把所有的同桌 Tom 关于脱欧提出的观点记了下来'. The problem of this type is that '所有' may lead to an ambiguous modification relationship as it can be seen as a modifier of '同桌' instead of the headword '观点'. The second category features responses like '我把同桌 Tom 提出的关于脱欧所有的观点记了下来' and '把我同桌 Tom 提出的关于脱欧所有观点记了下来'. The WO of the underlined parts is basically appropriate, except for the use of '的'. The third category consists of sentences like '我把同桌 Tom 所有关于脱欧提出的观点记了下来' and '我把同桌 Tom 所有的关于脱欧提出的观点记了下来'. The main problem of this type lies in the position of the verbal phrase '提出的', which should be positioned immediately after '同桌 Tom'. The fourth category includes errors like '我把同桌 Tom 关于脱欧提出的所有的观点记了下来' and '我把同桌 Tom 关于脱欧所有的提出的观点记了下来'. For this type, the common problem lies in the position of the prepositional phrase '关于脱欧', which should be placed after the verbal phrase '提出的'.

Among these four major types of errors, the first type sees the largest number of errors, indicating that most participants tended to place '所有' immediately after '把' and in front of other attributives. The reason might be that these participants failed to figure out the semantic modification scope of '所有'. As a result, many of them placed '所有' in front of other attributives, which is the basic usage of '所有' that they are more familiar with. Therefore, in addition to the general rule of multiple attributives, the semantic and modification relationship among multiple attributives should also be a focus of WO teaching and learning so as to help L2 learners flexibly apply CWO rules.

11. ①他们 ②玩了 ③游戏 ④多 ⑤一个 ⑥小时。

(They have played games for over an hour.)

Question 11 involves the positioning of complements of time duration. According to Lu (1997, p.206), when a verb is followed by a complement of time duration and an object at the same time, the object is usually placed after the complement unless the object is a personal pronoun or name. Therefore, the correct order of this sentence should be '他们玩了一个多小时游戏' (They have played games for over an hour).

Thirty-three students made mistakes in this question, including:

'他们多一个小时玩了游戏',

'他们玩了游戏一个小时多',

'他们玩了游戏一个多小时',

'他们玩了一个小时多游戏',

'他们一个小时多玩了游戏',

'他们一个多小时玩了游戏',

'他们一个小时多游戏玩了',

'游戏他们玩了一个小时多'.

For students who produced sentences like '玩了一个小时多游戏', though they knew that the object should follow the complement of time duration, they had confusion over the position of '多' (more than). In this sentence, '多' is a numeral word functioning as an attributive to suggest the approximate length of time and should precede the noun it qualifies. Other errors comprise placing the complement before the verb, placing the complement after the object, placing the object at the beginning of the sentence, and wrong modification within the complement part. The main reason behind these errors is participants' inadequate grasp of the usage of complements of quantifier. It appears that the modification relationship between the numeral word '多' and words suggesting time duration is a point of difficulty for L2 students. In addition, looking back at Question 18[9] in the matching task, where '多' is used as an adverbial to qualify the verb '做', the placement of '多' also poses a challenge to L2 learners. Therefore, apart

[9] 18. A 做 B 些运动 C 有利于身体健康。多（ ）

from the general WO rules, such as the position of complements, adverbials and attributives, the usage of particular words like ‘多’ (many/more) and ‘少’ (little/less), whether being used as attributives or adverbials, should be emphasised in the practice of CWO teaching and learning.

1. ①我 ②买了 ③一张 ④桌 ⑤大 ⑥的 ⑦崭新(new) ⑧圆。

(I bought a big new round table.)

This question examines the placement of multiple attributives. According to Liu et al. (2001) and Yip and Rimmington (2016), the semantic sequence of multiple attributives in Chinese normally follows possession, location, time, scope, quantifier, state or activity, age, size, colour, shape, material, and function. The correct order of this sentence should be ‘我买了一张崭新的大圆桌’ (I bought a big new round table). Although the sequencing of multiple descriptive attributives can be adjusted flexibly according to the speaker’s intent, it is restricted by the phonological correlation, such as short vowels before long vowels, attributives with ‘的’ (de) before those without ‘的’ and attributives with multisyllables before those with monosyllables (Pan, 1997; Jiang, 2009). Therefore, in this question, as a disyllable word, ‘崭新’ (new) should precede the other two monosyllable attributives ‘大’ (big) and ‘圆’ (round) and be followed by the attributive marker ‘的’. Besides, ‘大’ should precede ‘圆’ because Chinese always states size before shape.

Twenty-eight students went wrong in this question. Incorrect answers include:

‘我买了一张大崭新圆的桌’,

‘我买了一张崭新大圆的桌’,

‘我买了一张大的崭新圆桌’,

‘我买了一张大圆崭新的桌’,

‘我买了一张崭新大的圆桌’,

‘我买了一张崭新圆大的桌’,

‘我买了一张崭新的圆大桌’,

‘我买了一张大崭新的圆桌’,

‘一张桌买了崭新大的圆’,

‘我买了崭新的一张大圆桌’,

‘我买了一张崭新圆的大桌’,

‘我买了一张大圆的崭新桌’,

‘我买了一张圆大崭新的桌’.

Most of these respondents knew that the quantifier ‘一张’ (one + Chinese measure word) should precede all the other attributives in this sentence, and this is why the response ‘我买了崭新的一张大圆桌’ is counted as an improper answer. Although this way of expression might be acceptable in oral language, it is unnatural and inappropriate in written Chinese. Furthermore, another major problem rests with the position of ‘的’. Some students placed the three descriptive attributives ‘崭新’, ‘大’ and ‘圆’ in correct sequence. However, they misplaced the attributive marker ‘的’, thus producing incorrect responses like ‘一张崭新大圆的桌’ and ‘一张崭新大的圆桌’. Therefore, the placement of ‘的’ in a group of attributives is a problem worthy of attention throughout Chinese L2 teaching and learning.

In addition, though Chinese varies from English in the sequence of multiple descriptive attributives, it turns out that not too many students have resorted to their native language to complete this question. Among the 28 students who produced incorrect responses, only a few of them produced sentences in an English WO, such as ‘一张大崭新圆的桌’ or ‘一张大的崭新圆桌’ (a big new round table). Therefore, it seems that the Contrastive Analysis Hypothesis may over-predict the influence of L1 as it claims that learners will turn to L1 for help when dealing with things that vary a lot from their L1 in the target language. Nevertheless, as the purpose of this research is not going to argue about the validity of the Contrastive Analysis Hypothesis and in fact every approach or theory has its limits and merits, thus the Contrastive Analysis Hypothesis is still adopted as a significant theoretical approach in this project.

15. ①已经 ②他 ③大学 ④了 ⑤毕业 ⑥去年。

(He graduated from college last year.)

Question 15 involves three adverbials ‘去年’ (last year), ‘已经’ (already) and ‘大学’ ([from] college), which suggest time, state and route respectively. The key point here lies in ‘大学’, which is not a simple noun meaning college/university, but an abbreviated form of the prepositional phrase ‘从大学’ (from college), indicating the route of the verb ‘毕业’ (graduate). The correct combination should be ‘他去年已经大学毕业了’ (He graduated from college last year). Liu (1983) proposes that the general sequence of multiple adverbials follows adverbials of time - adverbials of tone or relation - adverbials describing the action agent - adverbials of purpose, reason, involvement or coordination - adverbials of location, space, direction or route - adverbials of target or object, and adverbials describing the action. However, the ordering of Chinese multiple adverbials would be flexible and it is difficult to determine an absolute sequence (Lu, 1997; Pan, 1997). Despite the divergences of scholars’ opinions, what remains common is that adverbials of time usually come first; by comparison, the position of adverbials of location, direction, route, scope, etc. is comparatively flexible and can be adjusted according to the speaker’s intent of emphasis (Luo, 1996). Yet on the whole, the specific positioning is always limited by logical relations and conventions (Pan, 1997).

Although this question seems short and simple, there are 27 participants, including some with a high level of Chinese proficiency making mistakes, for instance:

‘他去年已经毕业了大学’, ‘

他去年已经毕业大学了’,

‘他去年已经了毕业大学’,

‘他已经去年毕业大学了’.

As a result of language convention, the preposition ‘从’ (from) is usually omitted in phrases like ‘大学毕业’ (graduate from college), ‘高中毕业’ (graduate from high school), etc. Since students did not grasp this conventional usage, they mistook ‘大学’ as the object of ‘毕业’. The fact is that ‘毕业’ is a compound verb featuring the verb-object pattern, with ‘毕’ (complete) being the verb and ‘业’ (study) being the object, so it cannot take another object behind. Hence, ‘大学’ should precede the predicate verb ‘毕

业’ as an adverbial to suggest the site/route of graduation (Cheng and Li, 1997, p.45).

8. ①喝 ②少 ③晚上 ④些 ⑤茶，⑥会 ⑦否则 ⑧失眠。

(Drink less tea at night; otherwise you may be sleepless.)

Question 8 aims to test the placement of the adverbial ‘少’ (less) and the correct order is ‘晚上少喝些茶，否则会失眠’ (Drink less tea at night; otherwise you may be sleepless). Twenty-six students made mistakes in this question, including:

‘晚上少喝茶，否则会些失眠’,

‘晚上喝少茶， 否则会些失眠’,

‘晚上喝少些茶，否则会失眠’,

‘晚上喝些少茶，否则会失眠’,

‘晚上少些喝茶，否则会失眠’,

‘晚上少喝茶些，否则会失眠’,

‘晚上喝少茶些，否则会失眠’.

Two most widely seen ill-formed sentences are ‘晚上喝少些茶，否则会失眠’ and ‘晚上少些喝茶，否则会失眠’.

Twelve respondents produced the former wrong sentence, in which ‘少’ is placed after ‘喝’ (drink), functioning as an attributive together with ‘些’ (some) to modify the object ‘茶’ (tea), meaning ‘drink less tea’. This expression reflects the influence of L1 transfer. According to Ross and Ma (2006), conventionally, when ‘少’ is used as an adjective, it is improper to combine ‘少’ with ‘些’ as an attributive to modify the headword, such as ‘喝少些茶’, which sounds unnatural. Yet, if ‘少’ is used as a verb, it can take the quantifier ‘些’ to lead the object, such as ‘少些抱怨’ (complain less). Regarding the second widely seen error, it sees eight participants going wrong. Though these students placed ‘少’ before ‘喝’, they treated ‘少些’ (less + Chinese quantifier) as a verbal phrase and made ‘喝茶’ (drink tea) an

object of ‘少些’, which is against the grammatical rule because ‘喝茶’ is a verb + object phrase and it cannot be used as a nominal word here.

Other errors are concerned with the quantifier ‘ 些 ’. As students’ understanding of the usage of ‘些’ was not accurate, some put ‘些’ after ‘少喝茶’ while others even placed ‘些’ in the second clause (‘会些失眠’). It seems that these students employed ‘些’ as an adverb to indicate the degree of the action. In a word, though ‘ 些 ’ is a simple quantifier, students still have difficulty with its application. Thus, more relevant practice should be involved in the class of TCFL/TCSL.

6. ①同学 ②我 ③在英国 ④的 ⑤带着 ⑥喜悦(joy) ⑦都 ⑧庆祝了(celebrated) ⑨圣诞节。 (All my classmates in Britain celebrated Christmas with joy.)

This question tests the placement of the two attributives ‘我’ (I) and ‘在英国’ (in Britain), and the two adverbials ‘都’ (all) and ‘带着喜悦’ (with joy). Twenty students produced 25 errors in this question, including:

‘都我在英国的同学喜悦带着庆祝了圣诞节’,
‘在英国我的同学都带着喜悦庆祝了圣诞节’,
‘我的同学在英国都带着喜悦庆祝了圣诞节’,
‘我在英国的同学带着喜悦都庆祝了圣诞节’,
‘我在英国的同学都喜悦带着庆祝了圣诞节’,
‘在英国我的同学都喜悦带着庆祝了圣诞节’,
‘都我的同学在英国庆祝了圣诞节带着喜悦’,
‘我的在英国同学都带着喜悦庆祝了圣诞节’,
‘我在英国的同学都喜悦庆祝带着圣诞节’,
‘在英国我的同学都庆祝圣诞节带着喜悦’,
‘在英国的我同学都带着喜悦庆祝了圣诞节’,
‘我在英国的同学都庆祝带着喜悦的圣诞节’,
‘我的同学都在英国喜悦带着庆祝了圣诞节’.

The variety of errors reflects the differences among L2 learners' interlanguage systems and the rich possibility of WO combination in Chinese. However, based on the corresponding English note (i.e. All my classmates in Britain celebrated Christmas with joy), the right Chinese sentence should be '我在英国的同学都带着喜悦庆祝了圣诞节'.

These 13 types of errors are mainly concerned with the position of '在英国', '带着喜悦' and '都'. Some participants placed '在英国' in the sentence-initial position; some put '在英国' between the subject and the predicate, making it an adverbial instead of an attributive, meaning that 'All my classmates celebrated Christmas with joy in Britain.' Nevertheless, according to the English note, '在英国' should be used as an attributive to modify the subject '同学' (classmate), emphasising that it was my classmates who were in Britain rather than elsewhere that celebrated Christmas with joy. Although these two expressions are similar to some extent, there is still a semantic difference between the use of '在英国' as an attributive and as an adverbial. In a word, using '在英国' as an attributive stresses that it was only my classmates in Britain who celebrated Christmas with joy, whereas using '在英国' as an adverbial tends to point out that the place where my classmates celebrated Christmas with joy was Britain. As '在英国' is a prepositional phrase, some students might not be familiar with its usage as an attributive modifier and thus produced expressions in an English manner.

Another problem lies in the concomitant adverbial '带着喜悦' (with joy), which features the verb-object structure and suggests a state accompanying the predicate verb '庆祝' (celebrate). Three respondents placed '带着喜悦' at the end of the sentence, such as '都我的同学在英国庆祝了圣诞节带着喜悦', and '在英国我的同学都庆祝圣诞节带着喜悦'. This is probably a result of L1 transfer as English puts 'with joy' at the sentence's end. Moreover, there were four students producing expressions like '喜悦带着', and one participant split '带着喜悦' into two parts like '...喜悦庆祝带着圣诞节'. These students seemed to have misunderstanding of this sentence, particularly the concomitant adverbial '带着喜悦'.

The third problem involves the position of the adverb '都', which should be used as an adverbial and placed immediately after the subject and before the adverbial '带着喜悦'. Two students put '都' at the beginning of the

sentence, reflecting the influence of L1 transfer as they thought that ‘都’ meant ‘all’ and was used to qualify the subject, namely ‘all my classmates in Britain’. What’s more, one student placed ‘都’ after ‘带着喜悦’ and another participant placed ‘都’ before ‘在英国’, making ‘在英国’ an adverbial rather than an attributive. The latter two errors reflect students’ inaccurate grasp of ‘都’, which is a simple adverb but calls for more attention on its semantic scope.

2. ①他 ②睡了 ③不确定 ④多久 ⑤自己。

(He was not sure how long he had slept for.)

Question 2 aims to test the placement of the complement of time duration ‘多久’ (how long), which is not the complement of the predicate verb of the sentence, but a complement involved in the object part. The correct sentence order is ‘他不确定自己睡了多久’ (He was not sure how long he had slept for). In this sentence, ‘他’ (he) is the subject, ‘不确定’ (not sure about) is the predicate verb and ‘自己睡了多久’ (how long he has slept for) is the object part which comprises a clause, i.e. subject (自己) + verb (睡了) + complement of time duration (多久). The 24 errors mainly manifest as:

‘他不确定多久自己睡了’,

‘他自己不确定多久睡了’,

‘他不确定自己多久睡了’,

‘他多久睡了自己不确定’.

The primary problem rests with the position of ‘多久’, which relates to the length of time and should be placed after ‘睡了’ (sleep + le) as a complement of time duration. For errors in which ‘多久’ is placed before ‘睡了’, they might be caused by L1 transfer as English puts ‘how long’ in front of ‘sleep’. Apart from the positioning of ‘多久’, the placement of ‘自己’ (oneself) is also problematic for participants. Some put ‘自己’ immediately after the subject ‘他’, like ‘他自己不确定多久睡了’, and some put ‘自己’ after ‘多久’ like ‘他不确定多久自己睡了’. As a reflexive pronoun, ‘自己’ can be preceded by a relevant personal pronoun or be used as a pronoun on its own. In this sentence, ‘自己’ should occur between ‘不确定’ and ‘睡了多久’ because it is

the subject of ‘睡了多久’, and ‘自己睡了多久’ as a whole functions as the object of ‘不确定’.

Besides this, one student produced a sentence like ‘他多久睡了自己不确定’, where the object part is wrongly placed in front of the predicate verb ‘不确定’ and the WO within the object part is incorrect either. This error not only concerns the ordering of the verb-complement structure but the sequencing of the subject-verb-object structure as well. And the reason may be students’ inadequate grasp of Chinese sentence patterns and/or an inaccurate understanding of the sentence meaning. As WO is an essential approach to structuring information in Chinese phrases and sentences, moving some words can change the sentence/phrase structure and the corresponding meaning. Therefore, clarifying the basic WO structures at the phrasal level and sentence level is beneficial for learners’ WO acquisition. For sentences involving several different WO structures or a complex WO structure, instructors can first explain the basic sentence construction and then break it into specific parts to facilitate students’ understanding.

14. ①这家 ②公司 ③出口了 (exported) ④它的 ⑤一个接一个地 (one by one) ⑥产品 ⑦向中国市场

(This company exported its products to the Chinese market one by one.)

Question 14 involves two adverbials, ‘向中国市场’ (to the Chinese market) and ‘一个接一个’ (one by one), with the former suggesting the route/direction and the latter describing the frequency of the action. According to Liu (1983), the sequence of multiple adverbials generally follows adverbials of time - adverbials of tone or relation - adverbials describing the action agent - adverbials of purpose, reason, involvement or coordination - adverbials of location, space, direction or route - adverbials of target or object, and adverbials describing the action. Therefore, the correct sentence should be ‘这家公司向中国市场一个接一个地出口了它的产品’ (This company exported its products to the Chinese market one by one). Nineteen students made mistakes in this question, including:

‘这家公司一个接一个地出口了它的产品向中国市场’,

‘这家公司向中国市场它的产品一个接一个地出口了’,

‘这家公司向中国市场出口了一个接一个地它的产品’,

‘这家公司出口了一个又一个它的产品向中国市场’,

‘这家公司向中国市场它的出口了一个又一个地产品’,

‘这家公司一个接一个地向中国市场出口了它的产品’,

‘这家公司向中国市场它的一个接一个地产品出口了’,

‘这家公司它向中国市场一个接一个地产品出口了’.

Among these ill-formed sentences, the problems mainly lie in the ordering of ‘向中国市场’ and ‘一个接一个地’. The original intent of this question is to see whether students will put ‘一个接一个地’ at the end of the sentence due to L1 transfer. It turned out that no participants responded in this manner. Instead, nine students put ‘向中国市场’ at the end of the sentence, such as ‘这家公司一个接一个地出口了它的产品向中国市场’ and ‘这家公司出口了一个又一个它的产品向中国市场’. Although these participants did not adopt literal translation to reorganise this sentence, they still underwent L1 influence to some extent, which caused them to put the prepositional phrase at the end of the sentence.

In addition, there are 11 students placing the adverbial ‘一个接一个’ immediately after the subject ‘这家公司’ (this company), and the cause may be students’ overlooking of the context. As the subject ‘这家公司’ refers to just one company, the adverbial ‘一个接一个’ is not used to describe the quantity of the subject but to describe the frequency of the verb ‘出口’ (export), and therefore, it should be placed after the adverbial of route/direction ‘向中国市场’. Moreover, some students mistook ‘一个接一个地’ as an attributive qualifying the noun ‘产品’ (product), and produced expressions like ‘一个接一个地产品出口了’. This reflects that these students confused the modification marker of attributives ‘的’ with the modification marker of adverbials ‘地’. Thus, it is essential to help L2 Chinese learners master the basic points of CWO structures, such as the modification markers of attributives and adverbials, so they can avoid mistakes like using a phrase ended with ‘地’ as an attributive.

7. ①夏天 ②湖区 ③的 ④一个 ⑤是 ⑥开满 ⑦的 ⑧鲜花 ⑨季节。

(Summer in the Lake District is a season in full bloom.)

Question 7 involves the ordering of multiple attributives, including ‘湖区’ (the Lake District), ‘一个’ (a + Chinese measure word), and ‘开满鲜花’ (in full bloom), with the latter two being the key testing points. The correct WO is ‘湖区的夏天是一个开满鲜花的季节’ (Summer in the Lake District is a season in full bloom). There are 17 wrong answers to this question, for instance:

‘湖区的夏天是一个鲜花开满的季节’,

‘夏天的湖区是一个开满鲜花的季节’,

‘湖区的夏天是鲜花开满的一个季节’,

‘湖区的夏天是一个开满的鲜花季节’,

‘夏天湖区的一个季节是开满的鲜花’.

Eight students made mistakes in the ordering of the phrasal attributive ‘开满鲜花’ (in full bloom), such as ‘湖区的夏天是一个鲜花开满的季节’ and ‘湖区的夏天是鲜花开满的一个季节’. Literally, ‘鲜花开满’ (flowers fully bloom) is a subject + verb + complement structure. Nevertheless, it is an incomplete clause/verbal phrase and should take an object behind like ‘鲜花开满山坡’ (flowers bloom all over the hillside). The reason why participants produced the expression of ‘鲜花开满’ may be that they felt confident in and familiar with the subject + verb structure. However, they failed to recognise that ‘鲜花开满’ is not a complete expression and cannot be used as an attributive to modify ‘季节’ (season) here.

In addition, five students produced the expression ‘夏天的湖区’, which reverses the position of the headword and the attributive. This error is a semantic mistake instead of a grammatical one and the reason may be that these students did not cope with the sentence from an overall perspective; in other words, they did not realise that the subject of their sentence ‘湖区’ cannot be collocated with ‘季节’ (season) because the Lake District is not a season. Also, there is a minor problem concerning the position of the attributive marker ‘的’ , for example, ‘湖区的夏天是一个开满的鲜花季节’. The WO of this sentence is basically correct, yet the second ‘的’ should be placed after the phrasal attributive ‘开满鲜花’. This mistake suggests the importance of grasping the basic form of attributive-headword structures and examining the whole sentence during the L2 production process.

12. ①我们 ②三十 ③分钟 ④等 ⑤了 ⑥你。

(We have waited for you for 30 minutes.)

Question 12 tests the placement of the complement of time duration '三十分钟' (30 minutes). The correct sentence should be '我们等了你三十分钟' (We have waited for you for 30 minutes). First of all, as a complement of time duration, '三十分钟' should be placed after the verb '等了' (wait le). When there is an object of personal pronoun, the complement of time duration should follow the object (Lu, 1997). Thus, '三十分钟' should be placed at the end of this sentence. There are 15 wrong answers to this question, for example, '我们三十分钟等了你', '我们三十分钟等你了' and '我们等了三十分钟你'. More than half of these errors simply repeat the disorganised WO of the question and all these errors put the complement of time duration in front of the object or even before the verb. What's more, most of the participants who made mistakes in this question also erred in Question 11 (The correct WO of Question 11 is '他们玩了一个多小时游戏'). Though both questions test the position of complements of time duration, the object in Question 11 is a general noun so the complement should be placed before the object, while the object in this question is a personal pronoun so the complement should be positioned after the object (Lu, 1997).

In fact, these two questions were deliberately arranged together to check whether participants can distinguish the different position of complements of time duration when the verb takes different types of objects. It turns out that most of those who went wrong in both Question 11 and Question 12 tended to put the complement of time duration in front of the object and even the verb, despite the fact that English tends to express the meaning of time duration at the end of a sentence. Thus, it can be observed that L1 transfer does not always influence students' L2 acquisition. The reason why participants placed the complement of time duration in front of the object or even the verb may be because they were not familiar with its usage and mistook the complement of time duration as an adverbial of time. It seems that complements are a big challenge for L2 learners of each level and it is easy for students to confuse complements of time duration with adverbials of time. Therefore, it is necessary to help L2 learners distinguish these two structures. After students become more familiar with the application of Chinese complements, further instructions are required to help them decide

the different position of complements of quantity, such as complements of time duration and frequency, when the verb takes different types of objects.

5. ①室友 ②我的 ③一个 ④把他 ⑤鞋子 ⑥上周 ⑦刚买 ⑧的 ⑨扔了。 (One of my roommates threw away the shoes he had just bought last week.)

Question 5 involves the quantifier attributive and the phrasal attributive. The correct order should be '我的一个室友把他上周刚买的鞋子扔了'. Twelve participants went wrong in this question, errors including:

'一个我的室友把他上周刚买的鞋子扔了',

'我的室友把他一个上周刚买的鞋子扔了',

'我室友把他一个上周刚买的鞋子扔了',

'我的室友把他上周刚买的一个鞋子扔了'.

The major problem of this question rests with the position of the quantifier attributive '一个' (a + Chinese measure word). More than half of the inappropriate responses put '一个' at the beginning of the sentence, which is in the same order as English, indicating the negative transfer from participants' native language. In addition, some respondents used '一个' to modify the noun '鞋子' (shoes), which is not grammatically wrong but is against the meaning of the English note. It is predicted that some participants may make mistakes regarding the position of the phrasal attributive '上周刚买的' (bought last week) as it is located at the sentence's end in English. Nevertheless, it tuns out all respondents know that '上周刚买的' is an attributive modifying '鞋子' and should precede the headword. Thus, it seems that the placement of phrasal attributives is not always difficult for L2 learners whereas the positioning of some seemingly simple quantifiers is prone to be influenced by students' native language.

9. ①他 ②闲逛 (idled about) ③和朋友 ④来来回回 ⑤昨天 ⑥在街头 ⑦地。

(He idled about street corners back and forth with a friend yesterday.)

Question 9 focuses on the positioning of multiple adverbials, including ‘和朋友’ (with friends), ‘来来回回’ (back and forth), ‘昨天’ (yesterday), and ‘在街头’ (on the street). The proper sentence goes like ‘他昨天/昨天他和朋友在街头来来回回地闲逛’ (He idled about street corners back and forth with a friend yesterday). Ten students went wrong in this question, errors including:

‘他昨天和朋友在街头闲逛来来回回地’,

‘他昨天和朋友在街头闲逛地来来回回’,

‘他昨天和朋友来来回回地闲逛在街头’,

‘昨天在街头他和朋友闲逛地来来回回’,

‘昨天他和朋友在街头地闲逛来来回回’,

‘他昨天和朋友闲逛在街头来来回回’.

Among these ten errors, the primary problem rests with the positioning of ‘来来回回’, which is a fixed idiom functioning as an adverbial and describing the frequency of the verb ‘闲逛’ (wander). Nine participants placed ‘来来回回’ at the end of the sentence, for instance, ‘在街头地闲逛来来回回’ and ‘闲逛在街头来来回回’. The reason may be that these respondents mistook ‘来来回回’ as a predicate verb instead of an adverbial. It is necessary that students should learn the various constituents of adverbials, which include not only adverbs and adjectives, but also verbs, idioms, phrases, etc. With a clearer understanding of adverbials’ composition, students can make fewer mistakes like placing the phrasal adverbial at the sentence’s end.

Two students put the adverbial of location ‘在街头’ after the verb ‘闲逛’, making‘在街头’ a complement rather than an adverbial, for example, ‘他昨天和朋友来来回回地闲逛在街头’ and ‘他昨天和朋友闲逛在街头来来回回’. The former sentence violates the conventional usage of Chinese and the latter one is grammatically incorrect because it also places the adverbial ‘来来回回’ after the verb. As stated before, the ordering of multiple adverbials usually follows adverbials of time - adverbials of tone or relation - adverbials describing the action agent - adverbials of purpose, reason, involvement or coordination - adverbials of location, space, direction or route - adverbials of target or object, and adverbials describing the action (Liu, 1983). Although multiple adverbials’ sequencing can be adjusted according to the speaker’s

intent of emphasis (Luo, 1996), they should always precede the verb. The reason why L2 learners misused prepositional phrase adverbials as complements may be the influence of their English habits. Therefore, it is necessary to help L2 learners differentiate the use of adverbials and complements in Chinese.

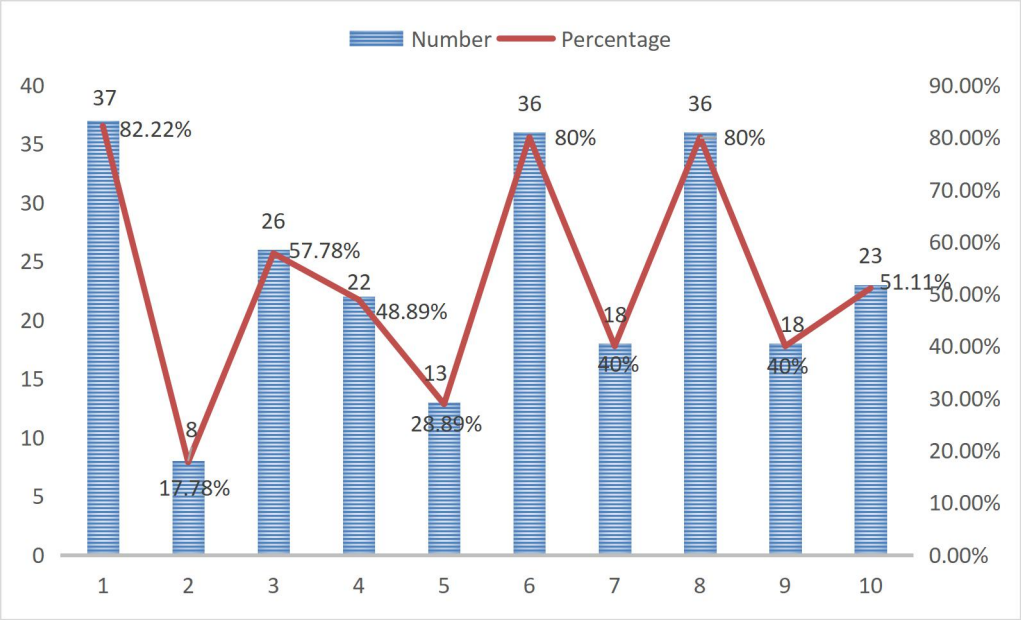
To sum up, among the twelve questions with ten errors or more each in this task[10], there are five testing points related to the attributive-headword structure, five related to the adverbial-headword structure, and three related to the verb-complement structure. The attributive-headword structure accounts for the largest number of errors in this task and many errors are concerned with WO of multiple attributives. The adverbial-headword structure sees the second largest number of errors, involving prepositional phrase adverbials, single adverbials and multiple adverbials. Regarding the verb-complement structure, all errors are related to complements of time duration. The reasons behind respondents' errors mainly lie in the negative transfer from L1, underuse of Chinese grammatical rules, overgeneralisation of Chinese WO rules, and neglect of the context. However, though L1 transfer is a major cause of WO errors, the results of Question 1, which tests the WO of multiple attributives, and Question 12, which examines complements of time duration, both reveal that L1 transfer does not always influence L2 learners' responses and its influence varies from L2 learners. Thus, it can be observed that CAH cannot explain all the L2 errors. Furthermore, we can see in some questions that the position of some attributives and adverbials can be flexible, such as the quantifier attributive and the adverbial of location/time; although it may entail no grammatical problems to move this kind of attributives or adverbials, the sentence meaning can be different or even inaccurate. Therefore, both the syntactic and semantic factors should be taken into consideration when dealing with Chinese WO.

6.4 L2 Groups' Results in the Revising Task

[10] Question 6 covers both the attributive- and adverbial-related testing points.

The revising task comprises ten questions and the figure below illustrates the L2 groups' overall number and percentage of errors in each question of this task.

Figure 6. 4 L2 Groups' Overall Number and Percentage of WO Errors in Each Question of the Revising Task



The total number of errors in this task is 237. According to Figure 6.4, Question 1 sees the largest number and percentage of errors, 37 and 82.22% respectively. Closely following Question 1, Questions 6 and 8 share the same, also the second largest number of errors at 36, with an error rate of 80%. Question 3 has the third largest number of errors at 26, reaching an error rate of 57.78%, followed by Question 10 (23 and 51.11% respectively) and Question 4 (22 and 48.89% respectively). Questions 7 and 9 also share the same number of errors at 18 and the same error rate 40%, followed by Question 5 (13 and 28.89%). As the revising task turns to be the hardest one for L2 groups, all its questions are discussed here, despite the error quantity of Question 2 being only eight.

1. 这个活动在英国一个城市叫利兹的举行。

[利兹：Leeds；举行：organise]

This question aims to check whether students can detect the wrong position of the phrasal attributive '叫利兹的' (called Leeds) and reposition it correctly. As students just need to relocate one word or phrase to correct the wrong-order sentence, in this question the revision can be completed simply by moving '叫利兹的' to the front of '城市' (city), and the correct sentence order is '这个活动在英国一个叫利兹的城市举行' (This activity is held in a city called Leeds). Thirty-seven students made mistakes in this question, including:

'这个在英国的一个城市叫利兹举行的活动',

'这个活动在一个英国城市叫利兹的举行',

'这个活动在英国的一个城市叫利兹举行',

'这个活动在英国叫利兹的一个城市举行',

'这个活动是在英国一个城市叫利兹举行的',

'这个活动是在一个英国利兹城市举行的',

'这个活动一个英国城市举行',

'这个活动举行在英国的一个城市叫利兹',

'这个活动举行在英国叫利兹的一个城市',

'在英国的一个城市叫利兹举行这个活动',

'在英国一个城市叫利兹的这个活动举行',

'在英国这个活动一个城市叫利兹的举行',

'在英国一个城市这个活动叫利兹的举行',

'在一个英国的城市叫利兹举行这个活动',

'一个在英国的城市叫利兹举行这个活动',

'一个城市叫利兹在英国举行这个活动', and two responses without any revisions.

Among these errors, except for the two of no revisions, the major problem lies in the positioning of the phrasal attributive '叫利兹' as many respondents placed it after the noun '城市'. It seems that these students had no idea that '叫利兹' is a phrasal attributive which should precede the headword for modification. To be specific, in the sentence of '这个活动在英国一个叫利兹的城市举行', the underlined part is a prepositional phrase consisting of the preposition '在' (in) and the attributive-headword structure '英国一个叫利兹的

城市' (a British city called Leeds), where the headword is '城市', qualified by three attributives, namely '英国' (Britain), '一个' (a + Chinese measure word) and '叫利兹'. According to Liu et al. (2001) and Lu (1997), the specific order of multiple attributives follows possession words, pronouns or phrases - time or location words - determiners/demonstrative pronouns or quantifiers - verbs/verbal phrases or prepositional phrases - adjectival words - adjectives without '的' (de) and nouns of property.

As the position of quantifiers could be flexible, the WO of the prepositional phrase can also be '在一个叫利兹的英国城市'. One student produced a sentence in this order indeed, which is beyond the expectation of the researcher because this student not only knew where to place the phrasal attributive but also correctly reorganisd the sequence of attributives within the prepositional phrase, manifesting the flexibility of CWO and the development of learners' personal interlanguage system. However, regarding sentences like '这个活动在英国叫利兹的一个城市举行' and '这个活动举行在英国叫利兹的一个城市', they are inappropriate and unnatural in written Chinese because of the position of the quantifier '一个'. Based on the general sequencing rules of multiple attributives, '一个' should quantify the headword like '一个叫利兹的英国城市' or '英国一个叫利兹的城市'.

In addition, there are several students reorganising this sentence into '这个在英国一个城市叫利兹举行的活动', in which the attributive marker '的' is not placed after the phrasal attributive '叫利兹' and '叫利兹(的)' is not placed before its headword '城市'; moreover, this expression is a nominal phrase without predicate. The correct sentence should present the pattern of subject (这个活动) + adverbial (在英国一个叫利兹的城市/在一个叫利兹的英国城市) + predicate (举行).

Furthermore, two participants made relatively complex yet incorrect revisions. To be specific, they reorganised this sentence in the pattern of subject + predicate + complement, in which the prepositional phrase was placed at the back of the predicate verb as a complement, for example, '这个活动举行在英国一个城市叫利兹' and '这个活动举行在英国叫利兹的一个城市'. Although these two students' attempts brought about WO errors, in a way it reflected their efforts in actively applying what they had learned about Chinese verb-complement structures to current exercises. This kind of attempt should be

encouraged and guided as it can facilitate L2 learners' overall improvement even though it may entail minor errors. Also, this revision suggests that the confusion between adverbials and complements is a problem commonly seen in English-speaking learners' application of CWO.

In addition, an interesting phenomenon is that seven students tended to change the original subject '活动' into an object, and make the prepositional phrase '在英国一个叫利兹的城市' become the subject, for instance, '在英国的一个城市叫利兹举行这个活动' and '在英国一个叫利兹的城市举行这个活动'. The reason for this kind of error may be that these students knew that the adverbial of location should precede other sentence elements, so they overgeneralised this rule and put '在英国' at the beginning. However, their revisions made the prepositional phrase become the subject of the sentence while usually the prepositional phrase cannot function as a subject. Additionally, several students placed the quantifier '一个' at the sentence's beginning, making '城市' become the subject and '活动' become the object, for example, '一个在英国的城市叫利兹举行这个活动', '一个在英国叫利兹的城市举行一个活动' and '一个城市叫利兹在英国举行这个活动'. There is no problem with this kind of change, but the ordering of the multiple attributives before '城市' should be modified and it is not proper to keep '在' in front of '英国', considering the clarity and precision of expression. Simply put, the subject part should be '一个叫利兹的英国城市'. In a word, this kind of revision, namely turning the original adverbial part into the subject part, suggests that these students may be more familiar with the subject + verb + object sentence pattern, which is the primary WO pattern in both Chinese and English.

For the two students who made no revisions, they failed to detect the wrong position of the phrasal attributive, which may be because Chinese phrasal attributives' position varies considerably from English and students are prone to be influenced by their L1 habits. Therefore, more practice concerning phrasal attributives' positioning is needed throughout the process of learning CWO.

6. 这位九十岁多的老人发表了关于养生的一篇文章。

[发表：publish; 养生：keep in good health]

Question 6 focuses on the position of attributives, including the numeral word '多' (more than), the quantifier '一篇' (one + Chinese measure word) and the prepositional phrase '关于养生' (about staying in good health). This question deliberately puts '多' after '九十岁' (90 years old) and puts '关于养生的' before '一篇'. The correct WO of this sentence is '这位九十多岁的老人发表了一篇关于养生的文章' (This elderly man who is more than 90 years old has published an article about staying in good health). Thirty-six students made mistakes in this question, for example:

'这位九十岁多的老人发表了一篇文章关于养生的',

'这位九十岁多的老人发表了一篇关于养生的文章',

'这位九十多岁的老人发表了关于养生的一篇文章',

'这位九十岁的老人发表关于养生的一篇文章了', and no revisions.

It is obvious that the positioning of the numeral word '多' and the prepositional phrase '关于养生' is the major problem of this question. Nearly half of the mistakes are concerned with '九十岁多' and many others are manifested as '关于养生的一篇文章' or '一篇文章关于养生的'. In fact, the numeral word '多' has been previously examined in Question 11 in the combining task, of which the correct WO is '他们玩了一个多小时游戏' and many students made mistakes like '一个小时多'. Similarly in this question, many participants held that '九十岁多' had nothing wrong and thus made no corrections. When expressing indeterminate excess in Chinese, '多' is placed after numbers, such as '三十多' (more than 30) or '一百多' (more than a hundred). But '多' can also come between two unitary notations when the former modifies the latter (Yip and Rimmington, 2016, p.32), such as '九十多岁' (more than 90 years old) in this question. Therefore, when the number is connected with a noun or the combination of measure word + noun, '多' comes after the number and before the measure word or noun (Yip and Rimmington, 2016, p.32). The reason for students' mistakes related to '多' may be that they have only learned how to use '多' to suggest indeterminate excess of simple numbers. When it comes to numbers associated with nouns or the combination of measure words and nouns, students still apply the same rule, simply placing '多' at the end. This overgeneralisation of Chinese grammatical rules leads to errors like '九十岁多'.

In addition, some students had problems with the ordering of the quantifier '一篇' and the prepositional phrase '关于养生'. For errors like '关于养生的一篇文章', participants did not realise that the quantifier '一篇' is inappropriately placed after the phrasal attributive. Although the position of quantifiers can vary when it occurs together with phrasal/clausal attributives, normally non-restrictive phrase or clause modifiers should follow the determiner and quantifier (Tiee, 1986, p.136). According to Liu et al. (2001, p.494), the sequence of multiple attributives in Chinese sentences usually follows ① possessive nominals > ② locative words/temporal words > ③ quantifiers (followed by descriptive attributives) > ④ subject-verb phrases/verbs/verbal phrases/prepositional phrases > ⑤ quantifiers (preceded by restrictive attributives) > ⑥ descriptive modifiers that suggest opinion, age, size, colour, shape, etc. > ⑦ adjectives without 'de' and other descriptive nouns > ⑧ headword. As the quantifier '一篇' is a restrictive modifier and '关于养生的' is a phrasal attributive that describes the content of the headword '文章' (article), the correct ordering of this attributive-headword structure thus should be '一篇关于养生的文章'. For students who wrote '一篇文章关于养生的', it may be due to the influence of their first language, as English generally puts the phrasal attributive after the headword.

Furthermore, there are a couple of respondents who failed to detect either of these two errors, revealing the insufficiency in their interlanguage system. Additionally, one more problem reflected in participants' responses is the positioning of '了', which is a particle of the past tense. For example, one respondent produced this sentence: '这位九十岁的老人发表关于养生的一篇文章了', in which the numeral word '多' is omitted and the particle '了' is placed at the end of the sentence. Though the placement of '了' is not the focus of this study, it reflects that the complexity of CWO lies not only in notional words but also in function words. What's more, the omission of '多' indicates that students may try to avoid the use of some relatively difficult grammar points during their interlanguage development, thus making it harder for teachers and researchers to identify L2 learners' language problems. Therefore, apart from the superficial problems explicitly revealed in L2 learners' language production, more attention should be paid to the implicit problems hidden behind the SLA process, such as the usage of certain words or grammatical points intentionally or unintentionally avoided by students.

8. 你说我自私，你也不是很自私吗也？ [自私：selfish]

Question 8 aims at examining the placement of the adverb '也' (too) in the rhetorical question. The results turned out that all students understood that '也' should not be placed at the sentence's end and they made various attempts to revise this sentence. Thirty-six students went wrong in this question, errors including:

'...你也不是很自私吗',

'...不是你也很自私吗',

'...你也不是自私吗',

'...你也是不是自私吗',

'...也你不是很自私吗'.

Of these errors, a great majority manifests as '你也不是很自私吗'. Li and Thompson (1981, p.419) point out that when it involves negation, if the adverb has the negative in its scope, then the adverb precedes the negative; if the negative has the adverb in its scope, then the negative precedes the adverb. In this question, '也' should follow the negation '不是' (not), namely '你不是也很自私吗' because the adverb '也' is in the negative's scope.

In fact, the adverb '也' has been previously tested in Question 10 in the multiple choice task[11]. Combining these two questions, it is observed that many students tend to put '也' at the beginning of the clause or immediately after the subject even when there are negation words or other adverbials in the clause/sentence. One reason might be that students have only learned the basic positioning rule of '也'; namely, '也' can only occur before verbs or verb phrases (Ross and Ma, 2006, p.91). Even though there are other adverbials before the verb or verb phrases, students still follow this rule.

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[11] 10. Mary 对中国的历史很熟悉，____。

A.也对中国的政治非常了解 B.对中国的政治也非常了解

C.对中国的政治非常了解也 D.None of the above

Another reason might be that students are not clear about the semantic scope of ‘也’. Although ‘也’ is a simple adverb in Chinese, its placement is not easy for L2 learners to grasp especially when it occurs together with other adverbials and/or negation words. Therefore, the positioning of ‘也’ should also be a focus of teaching when dealing with the adverbial-headword structure. After introducing the basic position of ‘也’, instructors can gradually increase the difficulty by asking students to determine its position in multiple adverbials. Moreover, the semantic scope of ‘也’ and other adverbials should also be clarified so students can have a better understanding of the usage of ‘也’.

3. 他的腿受伤了，还走路得了吗?

Question 3 tests the position of the complement of potentiality ‘得了’ (de liao [able to]), which is deliberately placed after the object ‘路’ (road). The correct order should be ‘还走得了路吗’ (Can [somebody] still walk?). Ross and Ma (2006, p.192) state that ‘得了’ is a potential suffix used to indicate whether the subject is able to perform an action or not, and the object of the verb should follow ‘得了’. Twenty-six students erred in this question, errors including:

‘他的腿受伤了，还得走路了吗’,

‘他的腿受伤了，还走得路了吗’,

‘他的腿受伤了，还路走得了吗’,

‘他的腿受伤了，走路还得了吗’,

‘还走路得了吗，受伤了他的腿’,

‘他的腿受伤了，还走路走得了吗’,

‘他的腿受伤了，还得了走路吗’, and seven responses involving no revisions.

These underlined expressions are arranged in a wrong order and do not make sense in Chinese. For participants who made no revisions, they failed to identify the WO error and kept the original ordering. These various errors indicate that the complement of potentiality can be problematic for learners. In the error of ‘还走路走得了吗’, the participant attempted to use the

relatively complex form of the complement of potentiality, namely to repeat the verb after the verb + object structure and add ‘得了’ behind. However, the adverb ‘还’ (still) should be placed after the verb + object structure instead of preceding it, so the correct expression should be ‘走路还走得了吗’. Still, this revision is a good example of learners’ development in their interlanguage system, which is not perfect but is progressing gradually.

Reviewing the previously analysed questions concerning complements, such as Question 14 in the matching task that tests the directional complement[12], it seems that the positional relationship between complements and objects in Chinese is a great challenge for English-speaking students regardless of their grade levels. The reason might be that Chinese complements have no equivalents in English, so L2 learners find it hard to position complements correctly. Ringbom (1987, p.120) points out that ‘word-order rules are not very firmly anchored to explicitly made L1-L2 contrasts and this may make it easier for the learner to apply a rule to the wrong language.’ As Chinese and English differ greatly in the usage of complements, L2 learners may adopt their L1 habits or overgeneralise the L2 grammatical rules to address the complement-related issues. Therefore, the placement of complements should be a significant point in the class of TCFL/TCSL. Students can first start with the easier practice of complements’ positioning, for example, putting complements directly after verbs that involve no objects. Gradually, students can have more complicated drills in the verb-complement structure, for instance, positioning complements in the verb + object construction.

10. 音乐响起，大家都跳舞起来。 [响起：to ring]

Question 10 tests the position of complements again. As a complement of direction, ‘起来’ (qi lai [up]) should be placed after the verb, and when there is an object following the verb, the object should be placed in the middle of ‘起来’. Therefore, the correct sentence WO is ‘音乐响起，大家都跳起舞来’, in which ‘舞’ (dance) is the object of the verb ‘跳’ (jump). Twenty-three students made mistakes in this question, for example:

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[12] 14. 他慢慢地走 A 进 B 来 C。教室（ ）

‘音乐响起，大家都起跳来舞’,

‘音乐响起，大家都起来跳舞’,

‘音乐响起，大家都跳起来舞’,

‘音乐响起，大家都跳舞起来’,

‘音乐响起来，大家都跳起舞’,

‘响起音乐，大家都跳舞起来’, and two responses involving no revisions.

Some of the responses are not grammatically wrong, but are at variance with the context of the sentence, such as ‘音乐响起，大家都起来跳舞’ and ‘音乐响起来，大家都跳起舞’. The former response changes ‘起来’ (qi lai) from a complement to a predicate verb, meaning that everyone gets up and starts to dance, which is against the original meaning of the question and sounds awkward. Interestingly, the latter response splits the complement ‘起来’ into two characters and moves ‘来’ (lai) to the end of the first clause, forming a new combination of ‘起来’ in the first clause. In this case, ‘音乐响起来’ (the music rings out) is a correct expression, yet the latter clause ‘大家都跳起舞’ (everyone dances) seems incomplete and unnatural. The reason behind may be that students were more familiar with verb-complement structures that have no objects and were uncertain about the positioning of complements in verbal phrases with objects. Since the verbal phrase ‘跳起来舞’ (dance qi lai) involves the ordering of the object and the complement whereas the word ‘响起’ (rings out) has no objects, thus participants chose to separate ‘起来’ from ‘跳舞’ and produced a new combination of ‘起来’ in the first clause, namely ‘音乐响起来’. This revision reflects students’ effort in applying what they have already learned or known to solving new questions, though this attempt is not perfect.

Furthermore, ‘大家都跳起来舞’ is a mistake widely seen in participants’ responses. The reason might be that students were only familiar with the general positioning of ‘起来’ as a complement, namely putting it directly after the verb. However, they had problems with the positioning of ‘起来’ when there is an object following the verb.

Considering complements’ variety and complexity, it is not strange for L2 learners to make mistakes in Chinese verb-complement structures,

especially those with objects and complex complements. It is suggested that instruction on complements should start from the basic and easier aspects and then progress to the more difficult and complicated aspects according to students' level. In this case, it is less likely for students to be discouraged from learning at the beginning. For example, instructors can first clarify relatively easier types of complements, such as complements of degree and complements of result, and explain their basic placement. Then with students' progress, instructors can introduce more complex complements in detail, such as complements of quantity and compound directional complements, and ask students to do relevant drills in verb-complement structures involving objects.

4. 那两个月我度过的在北京是一段难忘的记忆。

[度过：spend; 难忘的：unforgettable; 记忆：memory]

This question involves the positioning of the phrasal attributive '我在北京度过' (I spent in Beijing), the determiner '那' (that), and the quantifier '两个' (two). The WO of the subject part is deliberately disarranged, with the verbal phrase attributive '我在北京度过' being separated from its headword '月' (month) and the headword part occurring in the sentence-initial position. The aim is to check whether students are able to perceive the wrong position of the attributives and rearrange the subject part correctly. The accurate WO is '我在北京度过的那两个月是一段难忘的记忆' (The two months I spent in Beijing are unforgettable memories). Twenty-two students did wrong in this question, errors including:

'那两个月我在北京度过的是一段难忘的记忆',

'那两个我在北京度过的月是一段难忘的记忆',

'那两个月我度过在北京是一段难忘的记忆',

'我在北京那两个月度过的是一段难忘的记忆',

'在北京那两个月我度过的是一段难忘的记忆',

'那两个月在北京我度过的是一段难忘的记忆',

'那两个月我在北京的度过是一段难忘的记忆',

'那我在北京度过的两个月是段难忘的记忆',

‘那两个月我在北京度过的一段是难忘的记忆’,

‘我在北京度过一段两个月那是难忘的记忆’,

‘我度过在北京的那两个月是一段难忘的记忆’,

‘在北京我度过的那两个月是一段难忘的记忆’,

‘那两个月我在北京度过是一段的难忘记忆’,

‘那两个我北京度过的月是一段难忘的记忆’,

‘那两个在北京度过的月是我一段难忘的记忆’.

These various ill-formed sentences indicate that the sequencing of multiple attributives is problematic for L2 learners. The main problem of these responses lies in the position of the phrasal attributive ‘我在北京度过’, while the placement of the determiner ‘那’ and the quantifier ‘两个’ seems to be relatively easier. Many students put ‘那两个月’ at the beginning of the sentence, with the phrasal attributive ‘我在北京度过’ following closely behind. This placement appears to coincide with the corresponding English expression, though the specific presentation is slightly different in each participant’s response, for example, ‘那两个月我度过在北京’ and ‘那两个月我在北京度过’. However, for students who correctly put the phrasal attributive in front of the headword, they might have an improper sequence within the phrasal attributive or make an incorrect arrangement of the phrasal attributive, the determiner and the quantifier, thus still failing to form an accurate sentence, for instance, ‘我度过在北京的那两个月是一段难忘的记忆’ and ‘那我在北京度过的两个月是段难忘的记忆’.

According to Liu et al. (2001) and Lu (1997), generally restrictive attributives precede the descriptive attributives, and the specific sequence of restrictive and descriptive attributives follows possession words, pronouns or phrases - time or location words - determiners/demonstratives or quantifiers - verbs/verbal phrases or prepositional phrases - adjectival words - adjectives without ‘的’ (de) and nouns of property. Besides, Yip and Rimmington (2016, p.105) point out that ‘for the sake of rhythm or clarity of message’, the verbal phrase or clausal attributive that suggests state or activity can usually be placed immediately before the demonstrative adjective and the numeral + measure word expression. Therefore, in this question, the phrasal attributive ‘我在北京度过的’, which comprises the possession word ‘我’ (I) + location/prepositional phrase ‘在北京’ (in Beijing) + verb ‘度过’ (spend) +

attributive marker ‘的’ (de) should come first, followed by the determiner ‘那’ and the quantifier ‘两个’, because ‘我在北京度过的’ is a phrase that restricts the scope of the headword. If putting the determiner and the quantifier before the phrasal attributive, namely, ‘那两个我在北京度过的月是一段难忘的记忆’, it seems rhythmically unnatural and semantically improper. Therefore, in addition to the basic grammatical rules, the rhythm and semantic scope should also be taken into consideration when dealing with WO issues.

On the whole, the combination of multiple attributives is a challenge for students to cope with, especially when there are complex attributives such as the phrasal/clausal attributive. As English always places the phrasal and clausal modifiers after the headword, L2 learners are prone to be influenced by this L1 habit, and this negative transfer is reflected in some of the ill-formed responses, for example, ‘那两个月我度过在北京是一段难忘的记忆’. Therefore, clarifying the WO rules of multiple Chinese attributives and making relevant comparisons between Chinese and English are necessary and beneficial for teaching and learning CWO.

7. 请你帮我照顾小狗一下，好吗？ [照顾：look after]

This question deals with complements of quantity. According to Lu (1997), complements of quantity can be classified into three types, the time-duration complement, e.g., ‘等了一年’ (waited le for a year), the time-frequency complement, e.g., ‘读了三遍’ (read le for three times) and the comparative quantity complement, e.g., ‘大十岁’ (ten years older). In this question, ‘一下’ (a while) is a time-frequency complement, and when this kind of quantifier complement coexists with an object after the verb, its positioning depends on the composition of the object. For objects consisting of general nouns, the time-frequency complement precedes the object; for objects consisting of pronouns, the time-frequency complement follows the object, and for objects consisting of personal or place names, the time-frequency complement can precede or follow the object (Lu, 1997). Therefore, the correct sequence of this sentence should be ‘请你帮我照顾一下小狗，好吗’, in which the complement ‘一下’ should precede the object ‘小狗’ (small dog) because ‘小狗’ is a general noun.

Eighteen students made mistakes in this question, for example, '请你帮我一下照顾小狗，好吗', '请你帮照顾我小狗一下，好吗', '你请帮我照顾小狗一下，好吗', and no revisions. Ten of the mistakes manifest as '请你帮我一下照顾小狗，好吗', in which '一下' is placed after the verbal phrase '帮我' (help me) instead of the verb '照顾' (look after). The reason might be that these respondents were more familiar with the expression of '帮.....一下' (do ... a favour), which is a frequently used pattern in Chinese. This revision reflects L2 learners' effort in applying what they are familiar with to addressing questions they feel uncertain about. However, the expression of '请你帮我一下照顾小狗' is inappropriate in Chinese because '一下' is used to complement the act '照顾' instead of '帮我'. Six students made no revisions in this sentence, indicating their insensitivity to the wrong positioning of the complement of quantity. Furthermore, two students tried to revise but failed to locate the error and still kept '一下' at the end of the sentence. Due to the complexity of Chinese complements and the gap between Chinese and English complements, some participants were unclear about the positional relationship between the complement of quantity and the object. Therefore, in the class of TCSL/TCFL, apart from clarifying the different types of complements of quantity, instructors can also explain the different placement of complements of quantity when they occur with different types of objects. Both complements of frequency and complements of time duration can be very tricky for students because their position varies with the composition of the object.

9. 她上课完就回家了。

Question 9 involves the placement of complements again. In this question, '完' (over) is a complement of result and should be placed before the object '课' (class). According to Lu (1997), complements of result should immediately follow the headword and nothing can be inserted between the headword and the complement of result; even the particle of tense like '了' (le) can only be placed behind the complement. Eighteen students made mistakes in this question, including:

'她上课完了就回家',

'她就上完课回家了',

‘她上课完后就回家了’,

‘她上课就完回家了’,

‘上课她完就回家了’,

‘她就上课完回家了’,

‘上课完她就回家’,

‘她下课就回家了’,

‘她完上课就回家了’,

‘上课完了她就回家’ and no revisions.

The main problem here lies in the placement of ‘完’ as a majority of participants put ‘完’ after ‘上课’ (attend class). The reason might be that these students did not realise that ‘上课’ is a construction of verb (上) + object (课) and mistook it as a single verb, thus placing the complement after ‘上课’. This mistake indicates again that the placement of complements is a challenge in students’ interlanguage development.

Though students may have learned the general rule of complements’ positioning, that is, placing the complement after the verb, once the verb is followed by an object, students may find it hard to decide the position of the complement. As a result, a certain number of students choose to place the complement after the verb + object structure, without considering the positional relationship between the object and the complement. Therefore, it is suggested that after introducing the basic rule of placing Chinese complements, more detailed and complex instruction should be provided according to the progress of students’ L2 acquisition. For example, students can first practise verb-complement structures that involve no objects. When it comes to verb-complement structures with objects, teachers can first explain the positional relationship between the complement and the object and then help students drill different types of complements. Moreover, teachers can help students learn to analyse the verb part, such as to tell whether the verb part is a verb-object phrase or a single verb, so as to have a more accurate positioning of the complement.

5. Tom 工作过在中国四年。

Question 5 mainly concerns the placement of adverbials. As an adverbial of location, '在中国' (in China) is deliberately positioned after its headword '工作' (work) in order to check whether students are able to ignore the influence of their native language and correct this error. There are 13 participants going wrong in this question, errors consisting of:

'Tom 在中国过四年工作',

'四年 Tom 在中国工作过',

'Tom 在中国四年工作过',

'Tom 四年过在中国工作',

'在中国 Tom 工作四年了',

'Tom 四年在中国工作过',

'在中国 Tom 四年过工作',

'Tom 过四年在中国工作'.

It is unexpected that these mistakes not only involve the position of the adverbial '在中国' but also the complement of time duration '四年' (four years) and the particle '过' (guo). Furthermore, what is interesting is that all these 13 ill-formed sentences see the adverbial '在中国' precede the verb '工作'. This suggests that all students have spotted the wrong position of '在中国' and they know that as an adverbial, '在中国' should be placed in front of its headword '工作'. However, the existence of the complement '四年' and the particle '过' increases the difficulty of revising this sentence. Twelve students moved '四年' to the front of '工作' and the reason may be that these participants mistook '四年' as an adverbial of time instead of a complement of time duration. These errors indicate the complexity and volatility of L2 learners' interlanguage system. To be specific, though these L2 learners may have grasped the points that the adverbial should precede the verb and the complement should follow the verb, when there are adverbials and complements coexisting in a sentence, students may hesitate and doubt their previously acquired knowledge, thus making superfluous changes like moving '四年' to the front of '工作'.

It should be pointed out that one participant produced a sentence like '在中国 Tom 工作四年了', which is grammatically correct. However, as this

student altered the original sentence by replacing ‘过’ with ‘了’, this response is thus counted as an error. To some extent, this revision mirrors the development and complexity of students’ interlanguage system as they know how to apply things that are more familiar to them to addressing new questions. In this question, ‘过’ implies that the action ‘工作’ has happened already and does not continue anymore. Some students mistook it as a verb instead of a particle, for instance, ‘Tom 过四年在中国工作’, in which ‘过’ is used as a verb, meaning ‘after some time’. The reason for this revision might be that students misinterpreted the meaning of this question into ‘Tom will go to China to work after four years’. Or, the reason can be construed as students getting confused by the intricate usages of ‘过’.

Overall, this question suggests that the position of adverbials of location is not difficult for L2 learners, yet the placement of complements of time duration and particles like ‘过’ is a problem for them. Students may confuse the complement of time duration with the adverbial of time and misunderstand the meaning of the particle. Therefore, complements of time duration, or in a broader sense, complements of quantity, should be a key point of teaching and learning the verb-complement structure. Although particles like ‘了’ (le), ‘着’ (zhe) and ‘过’ (guo) are not directly related to the five WO structures studied in this project, their positioning is integrated with WO structures in Chinese sentences. Thus, it is also significant for learners to grasp the usages of particles and figure out the meaning of every sentence.

2. 这就是我的理由为什么想认识他。[理由：reason]

Question 2 is the last question to be analysed in the revising task because it has the least number of errors (eight). As the revising task is the most difficult task for participants, all the ten questions are analysed here. This question deals with the position of the verbal phrase attributive ‘为什么想认识他’ (why [do I] want to know him), which is deliberately placed after the headword. As a phrasal attributive, ‘为什么想认识他’ should be positioned in front of the headword ‘理由’, and the right sentence should be ‘这就是我为什么想认识他的理由’ (This is the reason why I want to know him). Specific errors comprise:

‘我的理由这就是为什么想认识他’,

‘为什么想认识他，这就是我的理由’,

‘这就是为什么我的理由想认识他’,

‘这是我的理由为什么就想认识他’,

‘这就是我的理由因为我想认识他’,

‘这就是为什么我的理由想认识他’,

‘他为什么想我就认识这是理由’ and one response without revision.

Though there is only one attributive in front of the headword ‘理由’, the positioning of the phrasal attributive still seems to be challenging to these L2 learners, as English varies a lot from Chinese regarding this point. Many of the participants put the attributive behind the headword, which is apparently affected by their native language. For Chinese phrasal attributives, as long as students can identify their function and construct the phrase just like constructing a sentence, then the positioning of the phrasal attributive should not be a great problem for L2 learners.

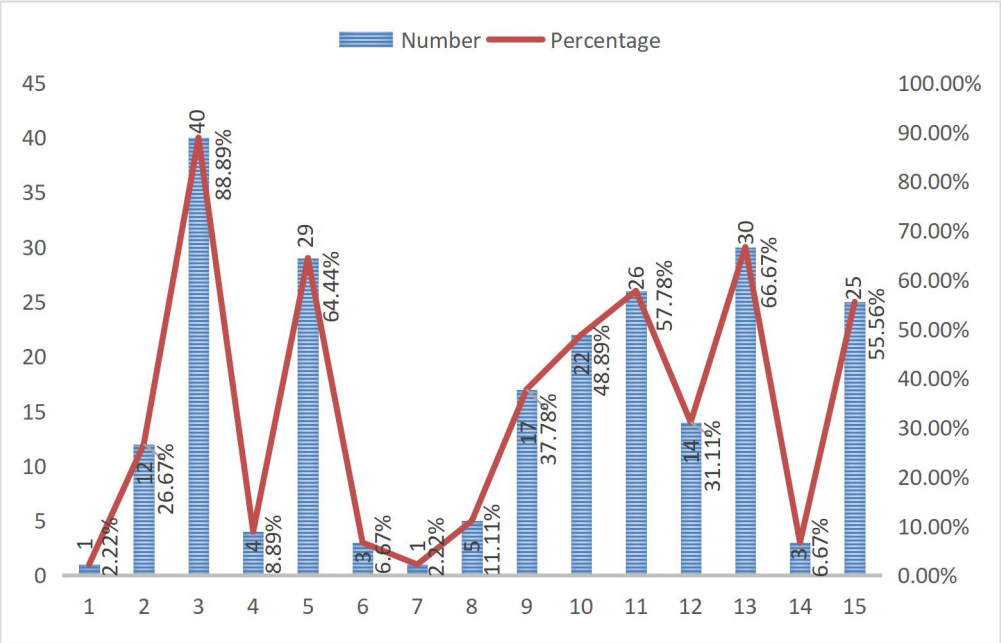
In brief, of the ten questions of the revising task, four are concerned with the attributive-headword structure, four are concerned with the verb-complement structure, and two are concerned with the adverbial-headword structure. Among the four questions involving the attributive-headword structure, each of them involves the positioning of phrasal attributives and three of them test WO of multiple attributives, with L1 transfer being the major cause of errors. With regard to the four complement-related questions, the primary errors rest with the positional relationship between the complement and the object. It appears that when the verb-complement structure involves objects, L2 learners will find it rather tricky to come up with the correct WO. Regarding the two adverbial-related questions, one tests the placement of the adverb and the other involves the positioning of the adverbial of location. As the most difficult task type, the revision task sees the highest error rate. The complexity of Chinese, the disparity between Chinese and English WO, underuse of certain Chinese grammatical rules/patterns, overgeneralisation of L2 grammatical rules and L1 transfer are the main reasons for participants’ errors. Apart from grammatical errors, there are also semantic errors in students’ responses. It would be helpful if instructors not only introduce grammatical rules and specify the form of each WO structure, but

also expound the semantic differences among different WO arrangements and teach from the basics to more complex aspects.

6.5 L2 Groups' Results in the Translation Task

The translation task consists of 15 questions, and the figure below represents the L2 groups' overall number and percentage of errors in each question of this task.

Figure 6. 5 L2 Groups' Overall Number and Percentage of WO Errors in Each Question of the Translation Task



The total number of errors in this task is 232. As shown in Figure 6.5, Question 3 has 40 errors, accounting for the highest error rate of 88.89%. Question 13 sees the second largest number of errors at 30, with an error rate of 66.67%. Closely following Question 13, Question 5 has 29 errors and an error rate of 64.44%. There is a narrow gap between Questions 11 and 15, each seeing 26 and 25 mistakes and an error rate of 57.78% and 55.56% respectively. Question 10 has 22 errors and an error rate of 48.89%,

followed by Question 9 (17 and 37.78% respectively), Question 12 (14 and 31.11% respectively), and Question 2 (12 and 26.67% respectively). The specific discussions go as follows.

3. Their first meeting is arranged at two o'clock on the afternoon of the coming Sunday. [meeting: 会面; arrange: 安排；the coming:下个]

Question 3 involves the translation of time expressions. The correct translation could be '他们的首次会面安排在下周日下午两点', with the testing point being arranging the time expression in a correct order and translating it into a complement. According to Pan (1997, p.235), the ordering of time and location expressions in Chinese is from large to small whereas in English the sequencing is from small to large, though the order of month and date expressions in American English is a bit different from British English. Hu (1995) and Jiang (2009) also claim that Chinese follows the Principle of Whole-Before-Part while English sticks to the Principle of Part-Before-Modifier. The results turned out that the most tricky thing for students was not the sequencing within the time expression but how to deal with the preposition 'at' between the verb 'arrange' and the time expression. To be specific, 'at' should be translated into ' 在 ' to lead the time expression, functioning as a complement of time after the verb 'arrange'. Fourteen students from Level 1, 13 students from Level 2 and 13 students from Level 3 made mistakes in this question, indicating that most of the L2 learners had difficulty translating the prepositional phrase of 'at' + time expression into a complement in Chinese. Their errors consist of:

'他们安排了有第一个会面在下个星期天下午两点',

'他们的第一个会面是下个星期天下午两点安排的',

'他们第一的会面下个星期天下午两点安排的',

'他们第一会面安排下午 2 点下周日',

'他们的第一次会面下个星期天下午两点安排了',

'他们第一个会面是下个星期天下午两点安排了',

'他们第一次会面下个星期天下午两点举行已经安排好了',

'他们首次的会面是下个星期天下午两点安排的',

‘他们第一个会面是下个周天下午两点的安排’,

‘他们的会面在下个星期天下午两点第一次安排了’,

‘他们第一个会面是在下个星期天下午 2 点安排的’,

‘他们的第一次会面是这周天下午两点安排的’,

‘他们下个星期天下午两点安排第一次会面’,

‘下个星期天下午两点他安排他们第一个会面’,

‘下个星期天下午两点他们第一个会面安排’,

‘下个星期天下午两点是他们第一次来参观的时候’,

‘下个星期天下午两点他们第一次安排会面’,

‘下个周天下午两点是他们第一次安排会面’,

‘下个星期日下午两点他们安排了第一个的会面’,

‘下个周日 2 点下午他们的第一次会面安排’,

‘下个星期天下午两点，就他们第一安排的会面’,

‘下个星期天下午两点是他们第一个安排的会面’,

‘第一个会面在下个日天二点下午是安排的’.

These various translations reflect the individuality and diversity of students’ interlanguage systems. One of the purposes of this question is to check whether students know how to express time concepts in a proper WO. Only three students erred in the sequencing within the time expression, for example, ‘他们第一会面安排下午 2 点下周日’, ‘下个周日 2 点下午他们的第一次会面安排’ and ‘第一个会面在下个日天二点下午是安排的’. The first underlined expression puts the larger time scope ‘周日’ (Sunday) after the smaller time scope ‘下午 2 点’ (2 pm) and the latter two underlined expressions put the larger time scope ‘下午’ (afternoon) after the smaller time scope ‘2/二点’ (2 o’clock), violating the Principle of Whole-Before-Part and the Principle of Modifier-Before-Head.

The small number of mistakes concerning the ordering of time expressions indicates that most L2 learners have mastered the sequencing rule of time expressions in Chinese. The difficulty here lies in translating the verb-complement structure. First of all, a certain number of respondents placed the time phrase at the beginning of the sentence, making the time

expression into an adverbial or a subject instead of a complement. This might be caused by students' misunderstanding of the sentence meaning. To be specific, they thought that the time expression referred to the occurrence of the act '安排' (arrange) rather than the schedule of the event '首次会面' (first meeting).

Additionally, some students found it hard to translate the predicate part because it involves a prepositional phrase suggesting time. They translated the predicate part into the pattern of '是 (is) + 下个星期天下午两点 (2 pm next Sunday) + 安排的/了 (arrange de/le)', for example, '他们首次的会面是下个星期天下午两点安排的'. This kind of translation is semantically incorrect because it means when people has made an arrangement for the meeting rather than when the meeting is to be held; moreover, it suggests that these students were unclear about how to use the preposition '在' (at) to translate the English passive sentence into a Chinese sentence featuring the verb-complement structure. The correct translation should observe the pattern of subject + verb + complement, with the verb-complement structure being translated as '(被)安排在' ([Chinese preposition] be arranged at) + time expression. In fact, for students who erred, only four of them adopted '在' in their translation, for instance, '他们安排了有第一个会面在下个星期天下午两点' and '他们第一个会面是在下个星期天下午 2 点安排的'. However, these students did not position '在' immediately after the verb '安排' and did not use the time expression as a complement, thus failing to present the correct syntactic structure and convey the accurate sentence meaning.

In sum, it turns out that the challenge of this question does not lie in the sequencing within the time expression but in the construction of the verb-complement structure. Although this question has not elicited many WO errors about time expressions, it reflects the fact that translating a prepositional phrase into a complement can be problematic for L2 learners. To be specific, the application of the prepositional phrase '在' (at) + time expression is a challenge for L2 learners as they have not fully grasped the usage of prepositional phrases as complements. Since WO exists in almost every grammatical level of Chinese, be it words, phrases, or sentences, therefore, instruction on WO should not only touch upon words and phrases but clauses and sentences as well. What's more, as some students may avoid applying patterns that are difficult for them, such as the verb-

complement structure, teachers can ask students to do relevant translation drills to check how much they have learned about these patterns.

13. We left the coach station at 9 am and now we have been waiting for the taxi for over 30 minutes. [left: 离开; coach station: 汽车站; waiting: 等; taxi: 出租车]

Question 13 tests the positioning of adverbials of time and complements of time duration. The correct translation could be '我们上午九点钟离开汽车站，现在等出租车等了 30 多分钟/半个多小时' or '我们早上九点离开了汽车站，现在等了 30 多分钟/半个多小时的出租车'. There are 30 incorrect responses to this question, including:

'九点上午我们离开了汽车站，等了以上 30 分钟出租车',

'我们早上 9 点离开汽车站，等了计程车 30 分钟多,

'上午 9 点我们离开汽车站，我们三十多分钟等了出租车了',

'我们早上 9 点离开汽车站，三十分钟多等出租车',

'我们上午九点离开车站，30 分多一直在等着出租车',

'我们早上 9 点离开车站，现在我们 30 分钟多等了出租车到了',

'我们上午 9 点离开汽车站，我们现在已经等出租车 30 多分钟了',

'我们上午 9 点离开汽车站, 等一个出租车多 30 分钟',

'我们上午 9 点离开汽车站，我们现在三十分钟等出租车',

'我们上午 9 点离开汽车站，现在已经过了三十多分钟等出租车',

'我们上午 9 点离开汽车站，我们三十分钟多等出租车了',

'我们上午 9 点离开汽车站，却现在等着出租车过了三十分钟多',

'我们上午 9 点离开汽车站，现在我们已经三十分钟等了出租车',

'我们 9 点上午离开车站，现在超过了 30 分钟我们在等出租车',

'我们上午 9 点离开汽车站，我们一直在等着出租车超过了三十分钟',

'我们上午 9 点离开汽车站，我们花了三十分钟多等出租车',

'我们上午 9 点离开汽车站，我们在等出租车 30 分钟了',

'我们九点早上离开了汽车站，现在等出租车三十多分钟了',

‘我们上午 9 点离开汽车站，现在我们三十分钟等的出租车’,

‘我们上午 9 点离开汽车站，现在等待了出租车 30 分多’,

‘我们上午 9 点离开汽车站，现在等出租车半个小时多’,

‘我们上午 9 点离开汽车站，现在等出租车 30 分钟多了’,

‘我们上午 9 点离开汽车站，现在等出租车等了 30 分钟多’.

Among these errors, five are from Level 1, 15 from Level 2 and ten from Level 3. This distribution of errors is exceptional, as Level 1 saw much less errors than both Level 2 and Level 3. Likewise, in Question 18 of the matching task[13], Level 1 students outperformed Level 2 and behaved roughly the same as Level 3. The reason for the exceptional distribution of errors in these two questions is the same: they both involve the positioning of ‘多’ (over/more) and Level 1 students have just learned and practised the similar usage of ‘多’ in their year-abroad study when doing this survey. Although Level 2 and Level 3 have more exposure to Chinese from a diachronic perspective, their application of ‘多’ is not necessarily better than Level 1. One of the reasons may be that they have not fully grasped or have forgotten the usage of ‘多’ due to lack of practice. This reflects again the importance of frequent practice in students’ interlanguage development.

As for the WO errors underlined in the examples, they can be classified into five types. The first type consists of ‘三十多分钟等出租车’ and ‘超过了 30 分钟我们在等出租车’, in which the complement of time duration is placed in front of the verb, making the complement of time duration an adverbial. The reason might be that these participants were not familiar with the application of complements of time duration, so they resorted to the pattern of adverbials to translate this sentence.

The second type includes ‘等出租车 30 多分钟了’, ‘等着出租车超过了三十分钟’, and so on. The WO of this kind of translation seems to be the same as the original English sentence. When a complement is adopted to suggest quantity, it should be placed between the verb and the object (if there is an object), or to repeat the verb after the object and put the complement after

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[13] 18. A 做 B 些运动 C 有利于身体健康。多（ ）

the repeated verb, for instance, ‘等了 30 多分钟的出租车’ or ‘等出租车等了 30 多分钟’ (waited for the taxi for more than 30 minutes). The reason for this type of error may be L1 transfer or students’ unfamiliarity with the usage of complements of quantity, especially the usage of repeating the verb and putting the complement after the repeated verb.

The third type of errors rest with the adverbial of time. Though the Chinese expression of time is easy to learn, there are still four participants making mistakes like ‘9 点早上’ and ‘9 点上午’, which violate the Principle of Whole-Before-Part and are obviously influenced by their L1 habits.

The last two types of errors lie in the quantifier phrase modified by ‘多’. The fourth type entails errors like ‘多 30 分钟’ and ‘以上 30 分钟’. The correct ordering is to place the numeral word ‘多’ (over/more than) after the number ‘30’ instead of preceding it. This type of WO error might be caused by L1 transfer as well since the original English expression is ‘over 30 minutes’.

The fifth type is manifested as ‘三十分钟多’, with the numeral word ‘多’ following the quantifier phrase ‘三十分钟’ (30 minutes). According to Yip and Rimmington (2016), ‘多’ indicates the approximate duration of time and should precede the noun it qualifies. Errors involving the positioning of ‘多’ have occurred twice before in other tasks, such as ‘一个小时多’ and ‘九十岁多’. Like that which has been explained before, when a number is connected with a noun or a combination of a measure word and a noun, ‘多’ comes after the number and before the noun or the measure word (Yip and Rimmington, 2016, p.32), for example, ‘二十多人’ (more than 20 people) and ‘二十多个人’ (more than 20 ge [Chinese measure word] people). The reason why students put ‘多’ after the number and the noun as in ‘三十分钟多’ may be because they had only learned that ‘多’ should be placed after the numeral or quantifier to suggest indeterminate excess like ‘九十多’ (more than 90). When it comes to numbers associated with nouns or a combination of measure words and nouns, they still apply the same rule, adding ‘多’ at the end. Also, it is possible that students have been influenced by their native language, as ‘三十分钟多’ can be ‘30 minutes more’ in English.

These various ill-formed sentences all reflect a common problem, that is, complements of quantity, particularly complements of time duration are a great challenge for L2 learners, and the difficulty increases with the existence of the numeral word ‘多’. When teaching complements of time duration, instructors can explicate its different positioning in different cases. Also, the positioning of ‘多’ should be treated as a key point in CWO teaching, as the nominal phrase modified by ‘多’, or ‘多’ itself, can be widely used as attributives, complements or adverbials.

5. Two of my classmates saw this little Chinese girl at the street corner yesterday. [classmates: 同学; street corner: 街角]

Question 5 aims to test L2 learners’ ability of translating multiple attributives and time and location adverbials. The correct translation can be ‘昨天我的两个同学在街角看到了这个中国小女孩’. Twenty-nine students made mistakes in this question:

‘两个我同学昨天在街角看到这个小女生’,

‘两个我的同学昨天在街角看到这个小中国的女孩子’,

‘昨天在街角两个我同学看见这个中国小女孩’,

‘两个我的同学昨天在街角看到这个小中国女孩’,

‘昨天我的两个同学在街角看见这个小中国的女生’,

‘我的两个同学昨天在街角看到这个小中国女孩’,

‘我的两个同学昨天在街角看见这个很小的中国女’,

‘昨天我的两个同学在街角看见这个小的中国女孩’,

‘昨天我的两个同学看到一个中国女孩在街角’,

‘昨天我的两个同学看到这个在街角的中国小女孩子’,

‘昨天我的两个同学在街角看见这个小中国姑娘’,

‘昨天我的两个同学在街角看到这个小中国女孩子’,

‘昨天我的两个同学在街角看到一个小中国少女’,

‘昨天我的两个同学看到一个小中国女孩在街角站着’,

‘我两个的同学在街角看见了这个小中国女孩’,

‘昨天我的两个同学看见这个小中国女孩子在街角’,

‘我两个的同学们昨天在街角看见这个小中国姑娘’,

‘昨天我两个同学看见了一位站在街角的小中国女孩’.

The 29 inaccurate responses can be roughly divided into three types. The first type is related to attributives modifying the subject, namely ‘two of my classmates’; the second type is about attributives modifying the object, namely ‘this little Chinese girl’, and the third type is concerned with the adverbial of location ‘at the street corner’. In addition, there are some minor errors about the translation of ‘girl’ and the position of the Chinese attributive marker ‘的’. Some students have made more than one WO error in this question.

For the subject part ‘two of my classmates’, the correct translation should be ‘我的两个同学’. However, some respondents placed ‘两个’ (two + Chinese measure word) in front of ‘我的’ (my) or ‘我’ (I), which might be caused by L1 transfer as this sequencing is in line with the English WO.

For the object part ‘this little Chinese girl’, the proper translation should be ‘这个中国小女孩/女生/姑娘’, because on the one hand, multiple Chinese attributives observe the general sequencing rule of possession words, pronouns or phrases - time or location words - determiners/demonstrative pronouns or quantifiers - verbs/verbal phrases or prepositional phrases - adjectival words - adjectives without ‘的’ (de) and nouns of property (Lu, 1997; Liu et al., 2001); on the other hand, they are regulated by rhythmic rules, for example, attributives with multisyllables usually preceding those with monosyllables (Pan, 1997; Qiao, 2011). As ‘小’ (little) is a monosyllable word while ‘中国’ (China) is a disyllable word, thus ‘中国’ should precede ‘小’ in this attributive-headword structure. However, many students put ‘小’ before ‘中国’. It is safe to infer that L1 habits play a major role in this kind of mistake. Due to the disparity between multiple Chinese and English attributives’ ordering, teachers need to expound the sequencing rules of multiple Chinese attributives and compare the specific WO differences between Chinese and English. Providing relevant examples can facilitate students’ understanding of multiple Chinese attributives’ ordering.

For the adverbial part ‘at the street corner’, it modifies the verb ‘saw’ instead of the object. Some students misinterpreted ‘at the street corner’ into an attributive qualifying the object or an action of the object, placing it immediately before or after the object part, such as ‘昨天我的两个同学看到这个在街角的中国小女孩子’ and ‘昨天我的两个同学看见这个小中国女孩子在街角’ . This might be because students did not understand the meaning of the original sentence. Apart from grammatical factors, WO errors may also be caused by semantic misunderstanding. Hence, semantic collocation should also be taken into consideration in L2 teaching and learning as it is important for determining WO in Chinese (Pan, 1997).

In addition, some students added redundant ‘的’ after ‘小’ or ‘中国’, which is caused by the overgeneralisation of the usage of the attributive marker ‘的’.

11. Only by climbing upward step by step can you reach the peak.

[climb: 攀登/爬; upward: 向上; step by step: 一步一步; reach: 到达; peak: 顶峰]

This question aims at examining whether students can correctly translate multiple adverbials and the inverted English sentence into Chinese. The two adverbials after the verb ‘climbing’ (爬), i.e. ‘upward’ (向上) and ‘step by step’ (一步一步), should be translated in the order of ‘一步一步向上’. And the Chinese conjunctive phrase ‘只有.....才能’ (only...can) should be employed to translate the partly inverted English sentence. The right sentence can be ‘只有一步一步向上攀登，你才能到达顶峰’ or ‘你只有一步一步向上攀登，才能到达顶峰’. There are 26 errors elicited from this question:

‘你只有一步一步地爬向上才能达到顶峰’,

‘你只有向上爬一步一步才能到达顶峰’,

‘只有你一步一步向上爬才能到达顶峰’,

‘你除非向上一步一步地爬山才能到达顶峰’,

‘你只有向上一步一步地爬才能到达顶峰’,

‘你只有一步一步攀登向上才能到达顶峰’,

‘只有你向上一步一步地爬才能到达顶峰’,

‘你只爬向上一步一步才能到达顶峰’,

‘你只是向上一步一步地攀登才到达顶峰’,

‘你只要向上一步一步爬就能到达顶峰’,

‘你只爬一步一步向上能到达顶峰’,

‘只有爬上山一步一步才你可以到达顶峰’,

‘只有你一步一步地爬上山才能到达顶峰’,

‘你爬向上一步一步才能到达顶峰’,

‘只有爬一步一步向上你才到达顶峰’,

‘只有一步一步地攀登向上才能到达顶峰’,

‘只要一步一步爬向上就能到达顶峰’,

‘你必须向上一步一步爬到达顶峰’,

‘只能通过向上一步一步地登山才能到达顶峰’,

‘你只有向上攀登一步一步才能到达顶峰’.

A great majority of the errors lie in the ordering of the two adverbials ‘向上’ and ‘一步一步’, with the former being a restrictive adverbial indicating direction and the latter being a descriptive adverbial depicting the manner of the action. Many participants placed ‘向上’ before ‘一步一步’, for example, ‘向上一步一步地爬’ and ‘向上一步一步地攀登’. According to the general sequencing rules of multiple adverbials proposed by Liu (1983), restrictive adverbials like those suggesting route/direction usually precede descriptive adverbials. Nevertheless, Liu (1983) further points out that when adverbials describing the action are comprised of adjective reduplication or quantifier reduplication, they usually precede adverbials that restrict the route/direction because they generally have longer syllables. Therefore, the correct ordering of these two adverbials in this sentence should be ‘一步一步(地)向上爬’. Apart from the general syntactic rules, L2 learners should also learn that CWO is regulated by rhythmic rules as well, for example, modifiers with longer/more syllables usually preceding modifiers with shorter/less syllables (Pan, 1997; Liu et al., 2001).

In addition, several students even put the verb in front of the adverbials, such as ‘爬向上一步一步’ or ‘爬一步一步向上’. Regarding ‘爬向上一步一步’, it is exactly in accordance with the English ordering and it is safe to infer that

this error is caused by L1 transfer. However, for answers like '爬一步一步向上', it seems that L2 learners' interlanguage system is developing in a spiral way as students can figure out the sequence of these two adverbials, yet they placed adverbials after the verb under L1 influence.

Mistakes concerning the adverbials and the verb also include '一步一步地爬向上' and '向上爬一步一步', with the former placing '向上' after the verb as a complement and the latter placing '一步一步' after the verb as a complement. The reason might be that students had confusion about the specific usage of these two adverbials, leading to an underuse of Chinese adverbials' sequencing rule. Therefore, when dealing with WO issues, students need to not only follow grammatical rules but also analyse the sentence constituents and the exact meaning.

Apart from the two adverbials, translation of the inverted sentence pattern also entails WO errors, for example, '只有你.....才能' and '只有.....才你'. The former expression means 'only you...can', distorting the sentence meaning; the second expression wrongly places the adverb '才' in front of the subject '你', making no sense in Chinese. When applying the conjunction expression '只有...才能' (only by...can), the subject only occurs once, either in front of '只有' or in front of '才能', such as '你只有.....才能' or '只有.....你才能' (only by...can you). As WO intertwines with various aspects of Chinese, in addition to the five basic Chinese structures, WO of fixed phrases such as the conjunction phrase should also be an important point of L2 Chinese teaching and learning.

15. My dad is a manager working in a big company. He drinks at least five cups of coffee every day. [manager: 经理; at least: 至少; coffee: 咖啡]

Question 15 examines the phrasal attributive and multiple adverbials. The correct translation could be '我爸爸是一个在大公司工作的经理。他每天至少喝五杯咖啡'. In this question, 'working in a big company' is expected to be translated as an attributive to modify the noun 'manager', and the two phrases 'at least' and 'every day' in the latter sentence should be translated as two adverbials to qualify the verb 'drink'. Twenty-five participants made mistakes in this question:

‘我爸爸是一个大公司的经理，每天喝至少五杯咖啡’,

‘在一个大的公司我的爸爸当经理，他每天喝至少五杯咖啡’,

‘我爸爸是经理工作在一个大公司，每天至少喝五杯咖啡’,

‘我爸爸是经理在一个大公司，每天至少喝五杯咖啡’,

‘我爸爸在很大的公司是一个经理，他每天至少喝五杯咖啡’,

‘我爸爸是一个经理在一家大公司做事，每天至少喝五杯咖啡’,

‘我爸爸是个在巨大的公司做经理的工作。他每天喝至少五个杯咖啡’,

‘我爸爸是在大公司工作的一位经理，他至少每天喝五杯咖啡’,

‘我爸是一位经理在大的公司打工，他每天至少喝五杯咖啡’,

‘我父亲是工作在一个大公司的经理，他每天至少喝五杯咖啡’,

‘我的爸爸在一家大公司是管员。他每天喝经理五个杯咖啡’,

‘我爸是一个大公司的经理，他每一天要喝至少五杯咖啡’.

These errors are primarily concerned with the position of the verbal phrase attributive ‘在一个大公司工作’ (working in a big company) and the adverbial ‘至少’ (at least). Some respondents placed the phrasal attributive at the beginning of the sentence, such as ‘在一个大的公司我的爸爸当经理’; some translated the phrasal attributive into a complement, either placing it at the sentence’s end like ‘我爸爸是经理工作在一个大公司’ or in the middle of the sentence like ‘我爸爸是工作在一个大公司的经理’; some treated the phrasal attributive as an adverbial like ‘我爸爸在很大的公司是一个经理’, and some kept the phrasal attributive at the sentence’s end, making it into another verbal phrase, such as ‘我爸爸是一个经理在一家大公司做事’ and ‘我爸是一位经理在大的公司打工’. The last two examples are counted as pragmatic WO errors because there lacks a comma to suggest a semantic pause between the two verbal parts, and it is better to add a subject at the beginning of the second verbal part to make the whole sentence into a natural compound sentence, for example, ‘我爸爸是一个经理，他在一家大公司做事’.

Moreover, some respondents put the quantifier attributive in an inappropriate position, such as ‘我爸爸是在大公司工作的一位经理’, in which ‘一位’ (a + Chinese measure word) should immediately follow the verb ‘是’ (is) instead of coming after the verbal phrase attributive. According to Liu et al. (2001),

the sequencing of multiple Chinese attributives normally follows ① possessive nominals > ② locative words/temporal words > ③ quantifiers (followed by descriptive attributives) >④ subject-verb phrases/verbs/verbal phrases/prepositional phrases > ⑤ quantifiers (preceded by restrictive attributives) > ⑥ descriptive modifiers that suggest opinion, age, size, colour, shape, etc. > ⑦ adjectives without '的' (de) and other descriptive nouns. Furthermore, Fang (1992) asserts that the quantifier can be flexibly placed before or after the combined attributives, but there is a semantic difference between these two different placements. When the quantifier precedes the combined attributives, this sequencing makes the attributives descriptive. In contrast, when the quantifier follows the combined attributives, this sequencing makes the attributives restrictive. In this sentence, the attributives are used to describe the profession of the subject rather than restrict it. Hence, '一位' should precede the verbal phrase attributive. These errors suggest that WO related to phrasal and quantifier attributives is a challenge for L2 learners of each level.

In addition, there are some errors concerning the position of the adverbial '至少' (at least), which should be placed in front of the verb '喝' (drink). However, some students put it after the verb, producing expressions like '每天喝至少五杯咖啡'. In this case, '至少' is qualifying '五杯咖啡' (five cups of coffee) instead of '喝'. The cause of this error may be L1 transfer and it is also possible that students were only familiar with the basic usage of '至少', namely putting it in front of a quantifier such as '至少一年' (at least a year), so they put '至少' immediately before the quantifier phrase '五杯咖啡'. Furthermore, one student put '至少' before '每天' (everyday), which is not grammatically wrong but semantically improper because the scope covered by '至少' rests with the verbal phrase '喝五杯咖啡' (drink five cups of coffee) and as an adverbial of time, '每天' usually should precede other adverbials. As WO is not only related to grammar but semantic aspects as well, apart from introducing relevant WO rules, such as the pre-verb position of adverbials, L2 Chinese instructors can also provide a clear elucidation of the specific meaning and usage of certain words and phrases.

The translation of Chinese measure words is also a problem reflected in this question. Two students translated 'five cups of coffee' into '五个杯咖啡', in which '个' is a redundant measure word. Though this problem is not directly related to WO, it will be helpful to emphasise the significance of CWO when

teaching Chinese measure words because WO exists in various aspects of Chinese. In addition, one participant produced a sentence like ‘我爸爸是个在巨大的公司做经理的工作. This expression reflects this respondent’s effort to translate the verbal phrase ‘working in a company’ into a Chinese attributive. However, this attempt fails to convey the meaning correctly because it mixes the attributive with the headword. This may be caused by the student’s confusion about the sentence structure and semantic collocation. Thus, to reduce this kind of grammatical error, it is essential to help L2 learners develop a solid foundation of Chinese grammar, such as mastering the basic sentence elements and sentence patterns of Chinese.

10. This museum introduces the history of Xi’an to tourists in English.

[museum: 博物馆; introduce:介绍; Xi’an: 西安; tourist: 游客]

This question focuses on the translation of the two English prepositional phrases ‘to tourists’ and ‘in English’, which should be ‘向/给/为游客’ and ‘用英语’ respectively, and the correct sentence should be ‘这家博物馆用英语向/给/为游客介绍西安的历史’. There are 22 improper responses to this question, for example:

‘这家博物馆用英语为了介绍西安的历史对游客’,

‘这家博物馆对游客用英语介绍西安的历史’,

‘这家博物馆给观光客对西安的介绍用英语’,

‘为游客这个博物馆介绍西安的历史用英语’,

‘这家博物馆向游客用英文介绍西安的历史’,

‘这家博物馆用英文给观光客对西安的历史介绍’,

‘这家博物馆用英文介绍西安的历史给旅游者’,

‘这个博物馆西安的历史对游客用英语介绍’,

‘这博物馆对游客用英语介绍了西安的历史’,

‘这家博物馆给游客用英文介绍西安的历史’,

‘这家博物馆用英文来介绍游客关于西安的历史’,

‘这家博物馆用英文介给游客绍西安的历史’,

‘这家博物馆介绍给游客西安的历史’.

These errors are mainly concerned with the positioning of the two Chinese adverbials '用英文' (in English) and '向/给/为/对游客' (to tourists), with the former suggesting tool and the latter suggesting target/object. Some participants put '向/给/为/对游客' at the end or beginning of the sentence, some put '用英语' (in English) at the end of the sentence, and some placed '向/给/为/对游客' in front of '用英语'. In Chinese, adverbials always precede the verb and normally adverbials do not occur in the initial position of a sentence, except for adverbials of time or location, and adverbials suggesting manner or tool usually precede those suggesting target or object (Li and Cheng, 1988, p.275). Though some students placed one of the two adverbials at the end of the sentence, no participants put both adverbials at the end, which to some extent reflects students' efforts to get rid of the influence of their L1 habits and to apply the L2 knowledge they have previously learned.

Moreover, some students had difficulty translating the phrase 'introduce... to tourists' as they produced ungrammatical phrases like '介绍给游客西安的历史' or '介给游客绍西安的历史'. Obviously, the main problem here still lies in the position of '给游客', which should precede the verb '介绍' (introduce) as an adverbial of target. Regarding the expression of '介绍给游客西安的历史', to a large extent, it follows the English expression of 'introduce somebody to something', indicating the impact of L1 transfer. Therefore, it is essential to help L2 learners develop a grammatical sense of Chinese adverbials first, and then to instruct them in the basic sequencing of Chinese adverbials. That is, adverbials generally precedes the verb. With the progress of L2 learners, the relatively more complex rules, such as the ordering of multiple Chinese adverbials, can be illuminated to students. For instance, adverbials of manner should precede adverbials of target, and so on.

Additionally, there are some non-word order errors related to the translation of 'in English'. For example, several participants misinterpreted 'in English' as an adjective describing the nationality of 'tourists', producing responses like '对英国游客介绍' or '向在英国的游客给介绍'. This semantic error was caused by students' misunderstanding of the sentence. Hence, learners should pay attention to both the grammatical rules and sentence meaning in their L2 production.

9. A clever young man like you should be full of expectation towards the future. [like you: 像你(一/这样); young man: 年轻人; full of expectation: 充满期待]

Question 9 involves the positioning of multiple attributives and the prepositional phrase adverbial. The key point here lies in the translation of 'like you'. In the Chinese translation, it should be interpreted as a phrasal attributive featuring the verb + object + demonstrative pattern, such as '像你这样/一样聪明的年轻人' or '像你这样/一样聪明又年轻的人'. There are 17 errors elicited from this question:

'一个聪明的年轻人跟像你应该对未来充满期待',

'聪明的年轻人像你对将来应该充满期待',

'向将来聪明的年轻人像你应该充满期待',

'一个聪明的小伙子像你这样的人应该对未来充满期待',

'一位/个聪明的年轻人好像你应该对未来充满期待',

'像你一样的一位聪明年轻人充满期待未来',

'一个聪明的年轻男人像你应该对未来充满期待',

'像你一个聪明的年轻人应该对未来充满期待',

'像你的聪明年轻人应该对未来充满期待',

'像你一个聪明男子迈向未来应该很期待',

'像你一个聪明的年轻人，对将来应该充满期待',

'一个像你这样的聪明年轻人应该充满期待未来',

'像你一样的聪明年轻人应该关于未来充满期待',

'像你那么聪明的年轻人应该充满期待对未来',

'一个像你这样聪明的年轻人应该充满期待对未来',

'和你一样的年轻人应该充满期待未来'.

Two major problems revealed here rest with the translation of 'like you' and 'towards the future'. The appropriate translation could be '像你这样聪明的年轻人应该对未来充满期待' or '像你这样聪明又年轻的人应该对未来充满期待'. To be specific, 'like you' should be translated into the pattern of verb + object

+ demonstrative and precede the headword ‘man’, whereas ‘towards the future’ should be translated into an adverbial comprising a prepositional phrase, qualifying the headword ‘be full of expectation’.

When dealing with the phrasal attributive ‘like you’ (像你这样/一样), many students kept the English order and placed it after the subject, such as ‘一位聪明的年轻人好像你应该对未来充满期待’, ‘聪明的年轻人像你对将来应该充满期待’, etc. As a verbal phrase, ‘像你这样/一样’ is a restrictive attributive while ‘聪明’ and ‘年轻’ are two descriptive attributives, so the former should precede the latter two. Apart from the wrong position, there also lacks the demonstrative pronoun ‘这样/一样’ after ‘像你’. This kind of error suggests that students not only have problems with the positioning of ‘like you’ but also its basic form.

Moreover, in translations like ‘一个像你这样的聪明年轻人应该充满期待未来’ and ‘像你一样的聪明年轻人应该关于未来充满期待’, the basic WO of the underlined attributive-headword structure is almost correct as the sequencing of all the attributives is accurate. However, the underlined structure sounds unnatural because there is no attributive marker ‘的’ after the combined attributive ‘聪明年轻’ (clever and young). As a combined adjectival phrase, ‘聪明年轻’ should be followed by ‘的’ to qualify the headword. And for the sake of being concise, the preceding phrasal attributive ‘像你这样/一样’ needs no ‘的’ behind. Otherwise, an expression like ‘像你这样的聪明年轻的人’ seems wordy and unnatural. Although students can arrange multiple attributives in a correct order, positioning the attributive marker ‘的’ in a group of attributives may be problematic for them. Therefore, apart from learning the general sequencing rules of multiple Chinese attributives, students should also understand the positioning rule of the attributive marker ‘的’ and the rhythmic rule as well.

Concerning the translation of ‘towards the future’ (对未来), some respondents placed it at the Chinese sentence’s end just as in English, for instance, ‘像你那么聪明的年轻人应该充满期待对未来’ and ‘和你一样的年轻人应该充满期待未来’. The second sentence even misses the preposition ‘对’, making the adverbial into an object. Besides these, one respondent even put ‘towards the future’ at the beginning of the sentence, for example, ‘向将来聪

明的年轻人像你应该充满期待'. This might be caused by a misunderstanding of the meaning of '向(对)未来'.

In addition, the translation of the article 'a' in the subject part (i.e. 'A clever young man like you') also entails errors, for example, '像你一样的一位聪明年轻人' and '像你一个聪明的年轻人'. In fact, 'a' can be omitted in the Chinese translation and all the native Chinese speakers of the control group translated in this way. If 'a' is translated into a quantifier like '一位' or '一个', it has three possible positions in the subject part, at the beginning (一个像你这样聪明的年轻人), immediately before the subject (像你这样聪明又年轻的一个人), and between '聪明' and '年轻' (像你这样聪明的一个年轻人). Although the position of quantifiers is relatively flexible in Chinese (Liu et al., 2001), it is incorrect to place '一个' after the restrictive attributive '像你这样' and before the two descriptive attributives '聪明' and '年轻'. The flexibility of quantifiers' position may make it harder for L2 learners to arrange multiple attributives in a correct order; therefore, it would be beneficial for instructors to help students tell the semantic differences brought by the variation in quantifiers' position.

12. Now I have been living in Beijing for three years. [Beijing: 北京]

This question aims to examine the positioning of the complement of time duration. The correct translation could be '现在我在北京住了三年', in which the prepositional phrase 'in Beijing' is translated as an adverbial of location '在北京' to qualify the verb '住' (live), and the quantifier 'three years' is translated as a complement of time duration '三年' to complement the verb '住'. Fourteen participants made mistakes in this question, including:

'我已经三年住在北京', '现在我已经在北京住三年了',

'现在我住了北京三年', '我现在三年住在北京了',

'现在我三年住在北京了', '我现在在北京三年住了',

'现在我已经三年住在北京了', '我现在三年在北京住了',

'现在我在北京已经住三年了'.

The primary errors rest with the position of '三年' (three years), which should be placed after the verb as a complement of time duration. Furthermore, the translation of 'living in Beijing' is also problematic. The conventional way is to translate 'in Beijing' into an adverbial to modify the verb 'living', namely '在北京住', and all the Chinese native speakers of the control group employed this expression. Yet the prepositional phrase 'in Beijing' can also be translated as a complement and some students indeed adopted this translation, for example, '我已经三年住在北京' and '现在我已经三年住在北京了'. The problem of these translations does not lie in the verb-complement phrase '住在北京' but in students' treating the quantifier 'three years' as an adverbial of quantity instead of a complement of quantity/time duration, and the correct expression should be '我住在北京已经三年了'. The confusion between adverbials of quantity and complements of quantity occurs now and again in participants' responses. This may be because complements of quantity are more complex for L2 learners so they tend to apply adverbials of quantity which are more familiar to them to dealing with L2 tasks.

For translations like '我在北京住在三年了' and '我已经在北京住在了三年', students correctly translated 'in Beijing' as an adverbial and 'three years' as a complement. However, their translation of the predicate verb is incorrect because the preposition '在' (in) after the verb '住' (live) is redundant. To be specific, '住在' (live in) cannot be directly followed by a noun suggesting time duration but should be followed by a noun suggesting where. Therefore, the preposition '在' after '住' should be deleted and the particle '了' should immediately follow the verb '住', i.e. '我在北京住了三年'.

In addition, for ill-formed sentences like '现在我住了北京三年', there lacks the preposition '在' after the verb '住' and the particle '了' should be placed after the quantifier '三年'. The cause of this mistake may be students' overgeneralisation of the pattern of subject + verb + object + complement. Conventionally, the verb '住' should be followed by the preposition '在' before taking a noun suggesting where, so this sentence should be changed into '现在我住在北京三年了'.

Moreover, for translations like '现在我在北京已经住三年了', the basic sentence WO is correct except for the position of '了'. For the underlined verb-complement phrase, '了' should be placed immediately after the verb

‘住’ (i.e. ‘住了三年’) or occur twice in this phrase (i.e. ‘住了三年了’). As the application of ‘了’ is a very complex language point to acquire (Tiee, 1986), L2 students may avoid using it, overuse it, or place it in a wrong position. When teaching and learning the verb-complement structure or other WO structures involving verbs, the usage of ‘了’ is an inevitable grammar point. After introducing the basic WO of each structure, instructors can also explicate the placement of ‘了’ and help students tell the differences between the different positions of ‘了’, such as ‘在北京住了三年’ and ‘住在北京三年了’.

By and large, apart from the general WO rules, the application of particles like ‘了’ and prepositions like ‘在’ should also be emphasised in WO teaching as these words are integrated with the five primary Chinese structures and pose a great challenge to L2 learners’ WO acquisition.

2. The tourism industry has developed rapidly all over the world during the past 20 years. [industry: 旅游业; rapidly: 迅速; all over the world: 全世界]

This question aims to examine the translation of adverbials of time and location. The correct translation can be ‘(在)过去二十年里，旅游业在全世界迅速发展’ or ‘旅游业在过去二十年里在全世界迅速发展’. The adverbial of time ‘(在)过去二十年里’ (during the past 20 years) can occur at the beginning of the sentence or after the subject ‘旅游业’ (tourism), and no respondents made mistakes in locating the adverbial of time. There are 12 errors altogether:

‘这近二十年旅游业迅速地发展到全世界’,

‘这二十年旅游业快速全世界发展’,

‘从二十年以前到现在，旅游业迅速全世界发展’,

‘在过去二十年，旅游业把全世界发展了迅速’,

‘在过去二十年内在全世界旅游业很迅速地发展’,

‘在去过 20 年的期间在全世界旅游业迅速发展’.

The primary problem here lies in the translation of ‘all over the world’, which should be placed between the subject and the predicate as an adverbial of

location. For errors like ‘旅游业把全世界发展了迅速’, students misused the ba sentence and treated ‘all over the world’ as an object of ‘ba’. Moreover, one student translated ‘all over the world’ into a complement, for example, ‘迅速地发展到全世界’. Although this expression does not conform to the conventional usage, it reflects L2 learners’ attempt to apply the relatively complex verb-complement structure. In addition, some respondents placed ‘all over the world’ before the subject, such as ‘在去过 20 年的期间在全世界旅游业迅速发展’ and ‘在过去二十年内在全世界旅游业很迅速地发展’. This kind of expression is pragmatically inappropriate as it is not in line with the convention adopted by Chinese native speakers. The normal way is to place the adverbial of location ‘在全世界’ before the verb ‘发展’ but after the subject ‘旅游业’. Although students may have learned that the adverbial of location should follow the adverbial of time and can precede the subject, they have yet to master the typical and natural ordering of multiple adverbials. Therefore, apart from introducing the basic WO of adverbials, instructors also need to clarify the specific sequencing of multiple adverbials so as to help L2 learners gain a more comprehensive and exact understanding of standard CWO. Otherwise, L2 learners may produce sentences that are semantically or pragmatically improper.

Furthermore, there are some errors about the translation of the adverb ‘rapidly’ (迅速/快速), which can be translated as an adverbial before the verb ‘develop’ (发展) or be translated as a complement after ‘develop’. For sentences like ‘这二十年旅游业快速全世界发展’ and ‘从二十年以前到现在，旅游业迅速全世界发展’, students placed ‘迅速/快速’ in front of the adverbial of location ‘(在)全世界’, deviating from the rhythmic rule and multiple adverbials’ sequencing rules in Chinese; also, there lacks the preposition ‘在’ before the adverbial of location. In addition, one student translated ‘rapidly’ as a complement, for instance, ‘把全世界发展了迅速’. Yet, the particle ‘了’ is redundant and should be deleted or replaced by the complement marker ‘得’. Although this expression has two errors, the misuse of the ba sentence and the misuse of ‘迅速/快速’ as a complement, it reflects this student’s effort to apply the relatively complex language points to dealing with new tasks. To promote L2 learners’ interlanguage development, clarifying their errors and the specific usage of each grammar point is of great importance.

To sum up, the nine questions analysed in the translation task consist of three complement-related testing points, three attributive-related testing

points and seven adverbial-related testing points. Some questions test two WO structures, such as Question 5, Question 9, Question 13 and Question 15. It is Question 3, which examines the complement of time, that sees the largest number of WO errors. In this task, the influence of L1 habits remains a significant reason for students' WO errors. At least six questions see errors related to negative L1 transfer, suggesting that the influence of learners' native language becomes relatively evident when they carry out translation tasks. Furthermore, students' underuse and overgeneralisation of particular Chinese grammatical rules/patterns are also major cause of errors. This task reflects that the position of quantifiers is an intricate issue for learners. When a quantifier is used as a complement of time duration, some students tend to confuse it with adverbials of quantity, and when it is used as an attributive, students may be uncertain about whether to put it before or after the combined attributive. Furthermore, the sequencing of multiple attributives and adverbials, and the usage of prepositional phrases, whether being used as attributives, adverbials or complements, are all challenges to L2 learners. It seems that apart from grammatical errors, students will also make semantic and pragmatic errors in their translations. Therefore, emphasis on both form and meaning is essential for teaching and learning CWO.

6.6 Summary of All Three Levels' Results in the Five Tasks and Four Word Order Structures

This chapter has mainly discussed questions that each sees ten errors or more. Yet all the questions of the revising task are discussed because it sees the highest error rate (52.67%), proving to be the most difficult task for L2 learners. The revising task requires participants to not only identify where the error is but to understand why the sentence is wrong and revise it. Some students failed to detect the error, either spotting no errors or incorrectly locating the error. Some participants identified the error correctly but made a wrong revision. It is suggested that the revising task be adopted to strengthen L2 learners, especially the advanced level's capability of applying CWO.

The second highest average percentage of errors (40.70%) falls into the combining task, which asks students to rearrange a group of disorganised words and phrases into a sentence with correct WO. In this task, Question 13, which examines the sequence of multiple attributives, accounts for the highest error rate among the five tasks. The principal errors rest with the WO of multiple attributives and adverbials, and this is mainly due to the wide disparity between Chinese and English. As a result, the influence of L1 transfer is considerable in this task. Besides this, as Chinese complements have no equivalents in English, complements of quantity and of direction are challenges for L2 learners. This is consistent with the prediction of CAH, which claims that more difficulties will arise when there are more disparities between two languages.

The matching task requires participants to choose a correct position for the given word. It witnesses the third highest average percentage of errors (29.22%), and most of the errors are concerned with the adverbial-headword structure and the attributive-headword structure, such as the prepositional phrase-related adverbial, the negation of the ba sentence, attributives of quantity, and so on. The major causes of the WO errors rest with students' underuse of Chinese grammatical rules, overgeneralisation of Chinese grammatical rules and L1 transfer.

The translation task ranks fourth (27.13%) regarding the average percentage of errors. Students need to translate 15 English sentences into Chinese. Most of the errors are related to the adverbial-headword structure, such as adverbials of time, multiple adverbials, prepositional phrase-related adverbials, and the attributive-headword structure, such as attributives of quantity and phrasal attributives. However, it is Question 3, which involves the complement of time ('在' + time expression), that accounts for one of the highest error rates (88.89%) among the 70 questions, with Question 13 of the combining task having the same error rate.

The multiple choice task is the easiest task for participants as it sees the lowest average error rate (25.56%). Students are required to choose a correct answer from four similar options. The primary errors lie in the WO of complements and adverbials. Overgeneralisation of Chinese grammatical

rules, underuse of Chinese grammatical rules/patterns and L1 transfer are the main causes of errors in this task.

From the perspective of error rate, it is the verb-complement structure that accounts for the highest average error rate (37.65%), followed by the attributive-headword structure (34.58%), the adverbial-headword structure (31.4%) and the subject-verb structure (17.78%). Although the verb-object structure is not directly adopted as a testing point, there are several WO errors concerning this structure in questions that test verb-complement structures, for example, '就在屋里书看了一整天', '他们一个小时多游戏玩了' and '还路走得了吗'. In the underlined parts, the object is wrongly placed before the verb or the verb-complement structure and these expressions are deemed as errors related to the verb-complement structure because the object is included in the verb-complement structure.

With regard to the causes of errors, negative transfer from students' native language, underuse of certain Chinese grammatical rules/patterns, overgeneralisation of CWO rules and neglect of the context are the main factors that influence L2 learners' application of CWO.

6.7 Testing Points of the Three Major Word Order Structures

Considering the representativeness of the data, this study has mainly analysed 47 questions (out of the total of 70) that have relatively more errors. To have a clearer understanding of the WO structures examined in these 47 questions, the following three tables respectively present the specific testing points of the adverbial-related structure, the attributive-related structure, and the complement-related structure.

Table 6. 1 Testing Points of the Adverbial-Related Structure in Questions with Ten Errors or More Each

Multiple-adverbial structure	**Quantity of structure**	**Quantity of word order error**	**Error percentage**
Time + quantifier	1	11	24.44%
Time + location	1	5	11.11%
Time + location + verbal phrase	1	10	22.22%
Time + location + adjective	1	12	26.67%
Time + adjective	1	26	57.78%
Time + adverb	2	33	36.67%
Time + adverb + prepositional phrase	1	27	60%
Adverb + verbal phrase	1	11	24.44%
Quantifier + prepositional phrase	2	45	50%
Multiple prepositional phrases	1	22	48.89%
Total	12	202	37.41%
Single-adverbial structure	**Quantity of structure**	**Quantity of word order error**	**Error percentage**
Prepositional phrase	3	43	31.85%
Adverb	2	62	68.89%
Quantifier	1	21	46.67%
Time	1	4	8.89%
Location	1	13	28.89%
Adjective	1	17	37.78%
Ba-construction	2	29	32.22%
Adverbial marker	1	16	35.56%
Total	12	205	37.96%
Multiple- and single-adverbial	**Quantity of**	**Quantity of word**	**Error**

structure	structure	order error	percentage
Total	24	407	37.69%

Table 6.1 displays different types of adverbial-related testing points. There are 24 questions touching on the adverbial-headword structure and they are divided into the multiple-adverbial type and the single-adverbial type. It should be noted that in questions where two WO structures are tested, the error quantity of one structure may be less than ten while that of the other may exceed ten. For example, Question 5 of the translation task[14] tests both the multiple-attributive structure and the multiple-adverbial structure, with the former structure seeing 24 errors and the latter structure seeing five errors.

Among the 12 questions testing multiple-adverbial structures, eight of them are concerned with the combination of time expressions and other types of adverbials like quantifiers, location expressions, verbal phrases, adjectives, adverbs and prepositional phrases. The other four questions examine multiple prepositional phrases, the combinations of adverb and verbal phrase, and of quantifier and prepositional phrase. Among the 12 questions examining single-adverbial structures, three questions test prepositional phrases, two questions involve adverbs, two questions test the ba construction, and the remaining five questions examine adverbials of quantifier, time, location, adjective and the adverbial marker.

As shown in Figure 5.26, L2 groups' average error rate in all the 31 adverbial-related structures is 31.4%. In contrast, the error rate of the 24 adverbial-headword structures tested in questions with ten errors or more each is 37.69%, which is drawn by using the number of errors (407) to divide the number of responses (1080). It can be observed that the more errors an adverbial-related testing point has, the more difficult that adverbial-headword structure is.

In addition, among adverbial-headword structures tested in questions with more errors, multiple-adverbial structures occupy 49.63% of the errors and

[14] Two of my classmates saw this little Chinese girl at the street corner yesterday.

single-adverbial structures account for 50.37% of the errors. To be more specific, the error rate of the multiple-adverbial structure is 37.41% and that of the single-adverbial structure is 37.96%. These two sets of percentages are calculated by using each type's error quantity to divide each type's total response quantity. For example, the multiple-adverbial structure's error rate is obtained by using its error quantity (202) to divide its total response quantity (540). And the total response quantity is drawn by using the testing point quantity to multiply the participant quantity. For instance, the multiple-adverbial structure's total response quantity is calculated by using its testing point quantity (12) to multiply the respondent quantity (45). These percentages reveal that multiple-adverbial structures are not necessarily harder than single-adverbial structures for English-speaking learners. The possible reason may be that most of the multiple adverbials tested in this questionnaire involve time and location expressions. As students are familiar with the positioning of time and location expressions, they make fewer mistakes in adverbial-headword structures related to these two expressions.

This fact can be validated by the error rate of time and location expressions in both single-adverbial and multiple-adverbial structures. In the multiple-adverbial structure, the combination of time + location adverbials accounts for the lowest error rate (11.11%), and in the single-adverbial structure, adverbial of time and adverbial of location respectively see the lowest error rates at 8.89% and 28.89%. Thus it can be concluded that generally CWO issues about adverbials of time and location are not very challenging for English-speaking learners. Although adverbials of time and location can occur before or after the verb in English while they can only precede the verb in Chinese, few participants have experienced L1 transfer in locating these two types of adverbials. This proves that CAH seems to over-predict the problem brought by cross-linguistic gaps.

In the multiple-adverbial structure, the combination of time + adverb + prepositional phrase witnesses the highest error rate (60%). The second highest error rate (57.78%) rests with the combination of time + adjective. And the third highest error rate (50%) falls into the combination of quantifier + prepositional phrase. Concerning the single-adverbial structure, the adverb-related testing point accounts for the highest error rate (68.89%). The second highest error rate (46.67%) lies in the quantifier-related testing

point. And the third highest error rate (37.78%) rests with the adjective-related testing point.

Based on the results above, it can be concluded that for most English-speaking learners, the positioning of prepositional phrases and quantifiers is a difficulty in applying the Chinese adverbial-headword structure. Ross and Ma (2014) claim that Chinese differs a lot from English in the position of prepositional phrases, which are usually placed in front of the headword in Chinese but after the headword in English. Therefore, it is very likely for students to undergo L1 interference when dealing with WO issues related to prepositional phrases. As for quantifiers, L2 learners may make semantic errors when dealing with this kind of adverbials because the variation of the quantifier's position can lead to a different meaning in the adverbial-headword structure.

Table 6. 2 Testing Points of the Attributive-Related Structure in Questions with Ten Errors or More Each

Multiple-attributive structure	**Quantity of structure**	**Quantity of word order error**	**Error percentage**
Verbal phrase + quantifier + noun	2	54	60%
Verbal phrase + quantifier	1	8	17.78%
Verbal phrase + quantifier + personal pronoun	1	12	26.67%
Verbal phrase + quantifier + determiner	1	22	48.89%
Verbal phrase + quantifier + adjective	1	13	28.89%
Verbal phrase + prepositional phrase + adjective + noun	1	40	88.89%
Prepositional phrase + personal pronoun	1	14	31.11%

Prepositional phrase + quantifier + numeral + determiner	1	36	80%
Multiple adjectives + determiner	1	24	53.33%
Multiple adjectives + quantifier	1	28	62.22%
Total	11	251	50.71%
Single-attributive structure	**Quantity of structure**	**Quantity of word order error**	**Error percentage**
Quantifier	2	48	53.33%
Determiner	1	13	28.89%
Attributive marker	1	27	60%
Total	4	88	48.89%
Multiple- and single-adjective structure	**Quantity of structure**	**Quantity of word order error**	**Error percentage**
Total	15	339	50.22%

Table 6.2 demonstrates the specific attributive-related testing points covered in questions with at least ten errors each. Like the adverbial-headword construction, these attributive-headword structures are also divided into the multiple-attributive structure and the single-attributive structure.

There are 11 questions testing the multiple-attributive structure and the total error quantity is 251. Two questions entail the combination of verbal phrase + quantifier + noun, five questions involve the combination of verbal phrases and other attributives, two questions test the combination of prepositional phrases and other attributives, and two questions examine the combination of multiple adjectives and other attributives.

Regarding the single-attributive structure, its total number of errors is 88. There are two questions examining the position of quantifiers, and the other two questions test the position of determiners and attributive markers respectively.

As shown in Figure 5.26, the average error rate of the entire 25 attributive-headword structure is 34.58%. By comparison, the error rate of the 15 attributive-headword structures covered in questions with ten errors or more each is 50.22% (calculated by using the error quantity 339 to divide the response quantity 675). The highest error rate of these 15 attributive-related testing points falls into the combination of verbal phrase + prepositional phrase + adjective + noun, which witnesses 40 errors, with 88.89% of the participants making mistakes in this testing point. The second highest error rate rests with the combination of prepositional phrase + quantifier + numeral + determiner, which sees 36 errors and an error rate of 80%, and the third highest error rate goes to the combination of quantifier + multiple adjectives, with 28 errors and 62.22% of the participants going wrong. By contrast, the combination of verbal phrase + quantifier has the least number of errors (8) and the lowest error rate (17.78%). It has to be pointed out that this multiple-attributive structure is examined together with another multiple-adverbial structure in Question 15 of the translation task that sees 25 errors[15], with eight errors concerning the multiple-attributive structure and 17 others concerning the multiple-adverbial structure. The second lowest error rate goes to the combination of verbal phrase + personal pronoun + quantifier, with 12 errors and an error rate of 26.67%, and the third lowest error rate 28.89% falls into the combination of verbal phrase + quantifier + adjective and the single attributive of determiner, both testing points seeing 13 errors each.

Similar to the adverbial-headword structure, the attributive-headword structure also involves many errors related to prepositional phrases and quantifiers. Regarding prepositional phrases, they are always placed in front of the modified part in Chinese, while the case is on the contrary in English; for quantifiers, their position is relatively flexible in Chinese (Chen and Ming, 2010), which means in some cases they can be placed before or after the phrasal/combined attributive. For instance, when the verbal phrase is preceded by the quantifier, it tends to be a descriptive attributive and when it is followed by the quantifier, it tends to be a restrictive attributive (Fang, 1992). Therefore, students may find it difficult to differentiate the semantic differences and determine the correct position. Furthermore, deciding the

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[15] My dad is a manager working in a big company. He drinks at least five cups of coffee every day.

position of verbal phrases and multiple adjectives is also a tough task for English-speaking learners. The main reason still rests with the discrepancy between Chinese and English. To be specific, verbal phrases usually follow the headword as attributives in English; in contrast, Chinese generally places the verbal phrase before the headword as a modifier, complying with the Modifier-Before-Head Principle (Tai, 1985; Hu, 1995; Jiang, 2009). Concerning multiple adjectives, Chinese and English also follow different sequencing rules. Multiple adjectives usually function as descriptive attributives (Pan, 1997; Qiao, 2011), and their sequence in Chinese usually goes by ① opinion > ② age > ③ size > ④ source/country > ⑤ colour > ⑥ shape > ⑦ material > ⑧ function > ⑨ headword (Liu et al., 2001); in contrast, their sequence in English generally follows ① opinion > ② size > ③ age > ④ shape > ⑤ colour > ⑥ source/country > ⑦ material > ⑧ function > ⑨ headword (Pan, 1997). Yet, the specific sequencing of multiple descriptive attributives is not definitely fixed in Chinese and English and it may vary with communicative needs (Qiao, 2011, p.193). In sum, as Chinese deviates a lot from English in the positioning of prepositional phrases, quantifiers, verbal phrases and the sequencing of multiple adjectives, English-speaking learners may find it difficult to deal with WO issues concerning these kinds of attributives.

Among the 15 attributive-headword structures with more errors, the 11 multiple-attributive structures account for 74.04% of the total errors, with an average error rate of 50.71%, while the four single-attributive structures occupy 25.96% of the total errors, with an average error rate of 48.89%. Although the multiple-attributive structure is more frequently tested in the survey than the single-attributive structure, the gap between their error rates is narrow, indicating that multiple attributives are not always more challenging than single attributives. Some single attributives can be very confusing for L2 learners. For example, the question testing the placement of the attributive marker ‘的' (de) sees 60% of the respondents making mistakes. The possible cause may be that the attributive marker of Chinese differs a lot from that of English, and the usage of ‘的’ itself is relatively complex in Chinese. Besides this, the position of single quantifiers is also a challenge for participants as the two questions examining single quantifiers see an average error rate of 53.33%. All in all, apart from grammatical rules, L2 learners should also grasp semantic and pragmatic regularities as the

communicative and discoursal considerations are essential to determine CWO (Lu, 1997).

Table 6. 3 Testing Points of the Complement-Related Structure in Questions with Ten Errors or More Each

Complement + object structure	**Quantity of structure**	**Quantity of word order error**	**Error percentage**
Complement of time duration + general object	3	86	63.70%
Complement of time duration + pronoun object	1	15	33.33%
Complement of frequency + general object	1	18	40%
Complement of direction + general object	3	46	34.07%
Complement of result + general object	1	18	40%
Complement of potentiality + general object	1	26	57.78%
Total	10	209	46.44%
Single-complement structure	**Quantity of structure**	**Quantity of word order error**	**Error percentage**
Complement of time duration	2	38	42.22%
Complement of time	1	40	88.89%
Total	3	78	57.78%
Complement + object and single-complement structure	**Quantity of structure**	**Quantity of word order error**	**Error percentage**
Total	13	287	49.06%

Table 6.3 illustrates the specific forms of the complement-related structure. There are 13 questions with ten errors or more each examining the verb-

complement structure, and Question 13 of the translation task[16] tests both the verb-complement and adverbial-headword structures, with 26 errors concerning the former structure and four errors concerning the latter structure. These 13 complement-related testing points are categorised into two types. The complement + object structure means that the verb-complement structure involves an object, and the single-complement structure denotes that the verb-complement structure entails no objects. There are ten questions involving verb-complement structures with objects, with 209 errors and an average error rate of 46.44%. Three of the questions test the combination of complement of time duration + general object; three examine the combination of complement of direction + general object; two touch on the combinations of complement of time duration + pronoun object and complement of frequency + general object respectively, and two test the combinations of complement of result + general object and complement of potentiality + general object respectively.

The three questions testing single-complement structures consist of 78 errors, with an average error rate of 57.78%. There are two questions examining complements of time duration, and one question involves the complement of time. It is observed that the error rate of single-complement structures is higher than that of verb-complement structures with objects. This is partly because the testing point of the single complement of time accounts for the highest error rate among all the 70 questions, thus leading to a higher average error rate in the single-complement structure. Yet, it also reflects that some verb-complement structures with objects are not necessarily more complex or challenging than those without objects. As long as students frequently practise certain patterns, such as the structure of directional complements with objects, they can cope with the positional relationship between complements and objects well. Also, when the ordering of Chinese verb-complement structures with objects is the same as in English, such as the pattern of verb + pronoun object + complement of time duration, it is more likely that students can perform better in this kind of task.

In fact, the ordering of verb-complement structures without objects is not complex because students just need to learn that the complement should

[16] 13. We left the coach station at 9 am and now we have been waiting for the taxi for over 30 minutes.

follow the verb. What poses challenges to students is the specific usage and composition of complements. For instance, several participants made errors like '所有日程都安排好得很', '所有日程都很安排得好', '你记得不记住', '我在北京已经住三年了', and '他们的第一次会面安排下周日下午两点'. The positioning of the single complement can be easy as long as students understand the specific form and application of each type of complement.

According to Figure 5.26, the average error rate of all the 18 verb-complement structures is 37.65%. In contrast, the 13 complement-related testing points with more errors witness an average error rate of 49.06%. The highest error rate of these 13 complement-related structures is 88.89%, consisting in the single complement that suggests time. This is also one of the highest error rates of all the 70 questions. Another of the highest error rates rests with the attributive-related construction of verbal phrase + prepositional phrase + adjective + noun. This complement of time is constituted by the prepositional phrase '在' (zai) + time expression, which should be placed after the verb to suggest the specific point in time. Yet, most students had no idea about using '在' (zai) to lead the time expression and many of them simply placed the time expression before the verb as an adverbial. Although this complement of time is covered in a single-complement structure, it has the same highest error rate with the multiple-attributive structure, indicating again the difficulty and complexity of the usage of prepositional phrases. Furthermore, it can be concluded that the challenges English-speaking students may encounter when learning the five primary CWO structures are not only concerned with WO itself, but also the specific usage of some grammatical structures or patterns, such as the application of the prepositional phrase concerning '在' (zai).

The second highest error rate 63.7% falls into the combination of complement of time duration + general object. In this construction, many students tended to put the general object before the complement of time duration, such as '玩了游戏一个多小时' and '看了书一整天', which seem to follow the English sentence ordering. On the one hand, these errors may partly be caused by L1 transfer; on the other hand, it is also possible that students overgeneralised the CWO rule and directly followed the pattern of subject + verb + object + complement.

The third highest error rate 57.78% consists in the combination of complement of potentiality + general object. The complement of potentiality is tested in its affirmative pattern here, i.e. verb + '得了' (de liao [able to]). The major problem still lies in the positional relationship between the complement and the object. Concerning the second and third highest error rates, the complement part should precede the object part in both testing points. If students understand this WO rule, they will find it easier to determine the position of the object and the complement.

In contrast, the lowest error rate 33.33% rests with the combination of complement of time duration + pronoun object. In this pattern, the complement part is positioned after the pronoun object in both Chinese and English, so it is easier for students to determine the positional relationship between the complement and the object. The second lowest error rate 34.07% falls into the combination of complement of direction + general object. Concerning the three testing points of complements of direction, the results do not vary a lot among the three L2 levels, suggesting that the higher level does not outperform the lower level in this pattern. The possible reason may be that the positional relationship between the directional complement and the object has been repeatedly stressed and drilled in class, so all three levels are familiar with this pattern. The two combinations of complement of result + general object and complement of frequency + general object have the third lowest error rate, both being 40%. In these two constructions, the complement should precede the general object. Many students placed the complement after the object and several students even put the complement before the verb. L2 learners' underuse of Chinese complements' sequencing regularities and their misunderstanding of sentence meaning are the main causes of WO errors.

6.8 Results of the Three Major Word Order Structures

In brief, there are 24 out of 31 adverbial-headword structures, 15 out of 25 attributive-headword structures and 13 out of 18 verb-complement structures tested in questions with ten errors or more each. From an overall perspective, it is the verb-complement structure that has the highest error

rate (37.65%) among all the 70 questions, followed by the attributive-headword structure (34.58%) and the adverbial-headword structure (31.4%). When taking a closer look at WO structures tested in questions with at least ten errors each, the attributive-headword structure accounts for the highest error rate (50.22%), closely followed by the verb-complement structure (49.06%), and the adverbial-headword structure still comes at last (37.69%). Furthermore, concerning WO structures with more errors, it seems that the multiple-adverbial structure and the verb-complement structure with objects are not necessarily more difficult than the single-adverbial structure and the single-complement structure, and there is only a narrow gap between the multiple-attributive and single-attributive structures' error rates. In addition, it is the multiple-attributive combination of verbal phrase + prepositional phrase + adjective + noun and the single complement of time that witness the same highest error rate (88.89%). In contrast, the adverbial of time proves to be the easiest for L2 learners as it has the lowest error rate (8.89%).

Table 6.4 below illustrates the general results regarding the adverbial-headword, attributive-headword and verb-complement structures tested in questions with ten errors or more each.

Table 6. 4 Results of the Three Major Word Order Structures in Questions with Ten Errors or More Each

Type of structure	Quantity of structure	Quantity of error	Error rate
Attributive-related structure	15	339	50.22%
Complement-related structure	13	287	49.06%
Adverbial-related structure	24	407	37.69%

In comparison with questions seeing ten errors or more each, the entire 70 questions present different hierarchies of difficulty, as shown in Table 6.5.

Table 6. 5 Results of the Three Major Word Order Structures in All 70 Questions

Type of structure	Quantity of structure	Quantity of error	Error rate
Complement-related structure	18	305	37.65%
Attributive-related structure	25	389	34.58%
Adverbial-related structure	31	438	31.40%

Apart from these three structures, the subject-verb structure is also covered as a testing point in the questionnaire. As this structure only sees eight errors, with a low error rate of 17.78%, it has not been discussed in detail here. In sum, based on the overall results of the three levels, WO related to the verb-complement structure is the most difficult for English-speaking learners, followed by the attributive-headword structure and adverbial-headword structure. When focusing on questions with more errors, the attributive-headword structure and the verb-complement structure are almost of the equal difficulty for L2 learners, while the adverbial-headword structure is relatively easier than these two structures on the whole.

Concerning the attributive-headword structure involved in questions with more errors, its specific testing points vary in difficulty, as shown in Table 6.6. It has to be pointed out that different questions may involve similar WO testing points, so the number of testing point types is not equal to that of questions. This case is the same for all the attributive, adverbial and complement-related testing points.

Table 6. 6 Error Rate of Attributive-Related Testing Points in Questions with Ten Errors or More Each

Type of the attributive-related testing point	Error rate
Verbal phrase + prepositional phrase +	88.89%

adjective + noun	
Prepositional phrase + quantifier + numeral + determiner	80%
Quantifier + multiple adjectives	62.22%
Attributive marker	60%
Verbal phrase + quantifier + noun	60%
Quantifier	53.33%
Determiner + multiple adjectives	53.33%
Verbal phrase + determiner + quantifier	48.89%
Prepositional phrase + personal pronoun	31.11%
Verbal phrase + quantifier + adjective	28.89%
Determiner	28.89%
Verbal phrase + personal pronoun + quantifier	26.67%
Verbal phrase + quantifier	17.78%

For the verb-complement structure covered in questions with more errors, its testing points also feature different degrees of difficulty, as displayed in Table 6.7.

Table 6. 7 Error Rate of Complement-Related Testing Points in Questions with Ten Errors or More Each

Type of the complement-related testing point	**Error rate**
Complement of time	88.89%
Complement of time duration + general object	63.70%
Complement of potentiality + general object	57.78%
Complement of time duration	42.22%
Complement of frequency + general object	40%
Complement of result + general object	40%

Complement of direction + general object	34.07%
Complement of time duration + pronoun object	33.33%

Regarding the adverbial-related testing points covered in questions with more errors, its hierarchy of difficulty is indicated in Table 6.8.

Table 6. 8 Error Rate of Adverbial-Related Testing Points in Questions with Ten Errors or More Each

Type of the adverbial-related testing point	**Error rate**
Adverb	68.89%
Time + adverb + prepositional phrase	60%
Time + adjective	57.78%
Quantifier + prepositional phrase	50%
Multiple prepositional phrases	48.89%
Quantifier	46.67%
Adjective	37.78%
Time + adverb	36.67%
Adverbial marker	35.56%
Ba-construction	32.22%
Prepositional phrase	31.85%
Location	28.89%
Time + location + adjective	26.67%
Time + quantifier	24.44%
Adverb + verbal phrase	24.44%
Time + location + verbal phrase	22.22%
Time + location	11.11%
Time	8.89%

6.9 Generalisation of L2 Learners' Performance in All Word Order Structures

After presenting L2 groups' performance in the three major WO structures, particularly in those with relatively more errors, it is also necessary to review the L2 groups' performance in all the four WO structures, namely the attributive-headword, adverbial-headword, verb-complement and subject-verb structures.

Figure 6. 6 L2 Groups' Error Rates in Each Word Order Structure and All Word Order Structures

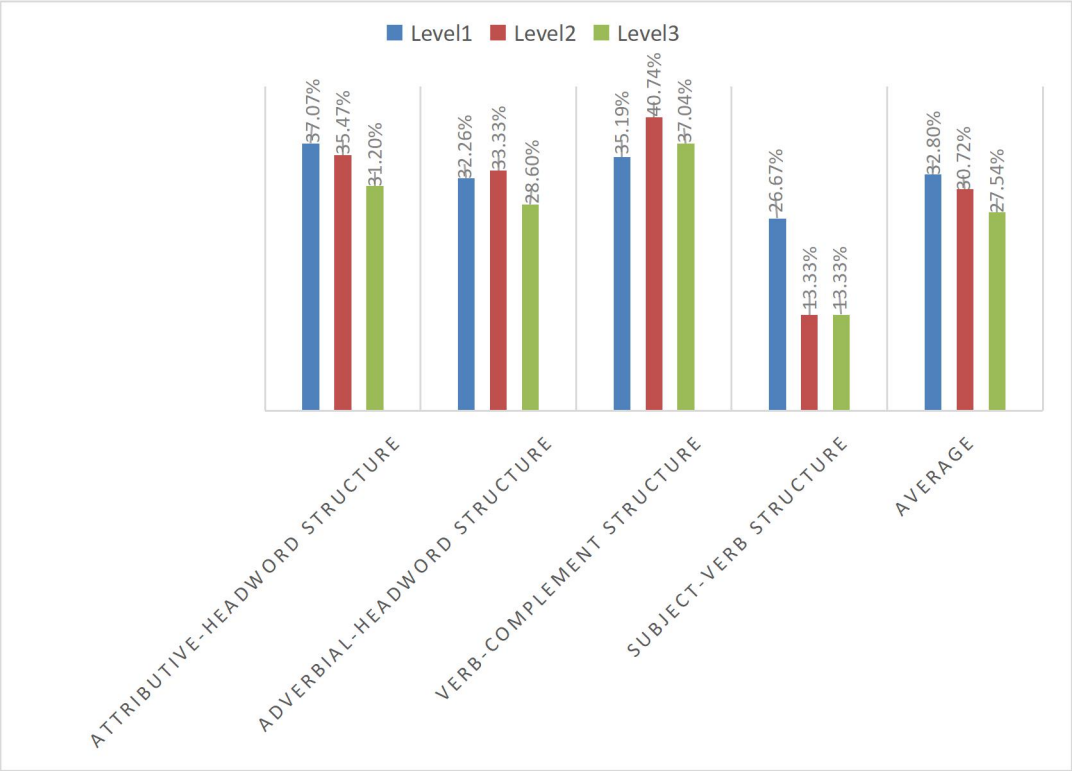

Figure 6.6 demonstrates each level's error rate in each WO structure and their average error rate regarding the four WO structures. For the attributive-headword structure, Level 1 students find it the most difficult, followed by Level 2 and Level 3 students. The adverbial-headword structure is more problematic for Level 2 and Level 1 students while Level 3 finds it relatively easier. What is interesting is that the most difficult verb-complement structure sees the lowest error rate in Level 1 whereas Level 2 has the

highest error rate, followed by Level 3. The easiest subject-verb structure witnesses the highest error rate in Level 1, while Level 2 and Level 3 find it much easier, sharing the same error rate. On average, Level 3 does the best in the four structures, followed by Level 2 and Level 1. Referring to the specific WO testing points covered in questions with more errors, it is found that the prepositional phrase, whether being used as an attributive, adverbial or complement, is the most difficult WO issue for English-speaking learners. For example, the prepositional phrase led by '在' (zai [at/in]) sees one of the highest error rates in the questionnaire when it is adopted as a complement-related testing point.

However, although the error rate of each WO structure can reflect how difficult a structure is for L2 learners, it should be noted that a higher WO error rate does not necessarily suggest a lower proficiency level in WO, and a lower WO error rate does not always promise a higher proficiency level in WO either. There are many factors affecting L2 learners' error rates, including the type of the question or task, complexity of certain structures, exposure to the target language, instruction on and drill of certain grammar points, and whether learners adopt the avoidance strategy when completing the tasks (Jiang, 2009). For example, in the adverbial-headword structure, overall Level 2 has a higher error rate than Level 1; nevertheless, when looking at multiple-adverbial structures alone, Level 2 has a lower error rate than Level 1. And in the single-adverbial structure, compared with Level 1, Level 2 makes more errors in the matching task but less errors in the revising task and translation task. Furthermore, in the verb-complement structure, while Level 2 makes more errors than Level 1 on the whole, they have the same results in the testing point of complement of direction + object. The reason why Level 1 outperforms Level 2 and Level 3 in the verb-complement structure might be that they had more frequent practice of the verb-complement structure both in class and real life in their study-abroad period.

In brief, to measure students' Chinese WO proficiency solely by their errors in a certain task or structure sometimes is not comprehensive enough. It is necessary to focus on both the correct and incorrect aspects of L2 learners' language output in order for a more comprehensive and accurate understanding of their language proficiency and interlanguage system.

Chapter 7
Conclusion

This chapter generalises the types of WO errors made by L2 learners, possible causes of these errors, L2 learners' difficulties in learning CWO, pedagogical implications for teaching CWO and the limits of this study.

7.1 Types of L2 Chinese Word Order Errors

With regard to the second research question of this study, 'What kinds of WO errors do L2 Chinese learners often make when acquiring the primary Chinese structures?' Chapter 6 provides a window for us to look at the specific WO errors made by L2 learners in the attributive-headword, adverbial-headword, verb-complement and subject-verb structures, particularly those covered in questions with relatively more errors. Guo (2000, p.240) asserts that during the process of L2 learning, students will make grammatical mistakes due to inaccurate and incomplete understanding of word meaning and usage as well as sentence structures. While this study aims at exploring grammatical/syntactic WO errors, non-syntactic WO errors are also included in the data analysis so as to provide a more detailed account of learners' interlanguage system. This section generalises the types of students' WO errors from a holistic perspective. To be specific, WO errors are categorised from the syntactic, semantic and pragmatic dimensions, involving all questions tested in the survey, i.e. including the attributive-headword, adverbial-headword, verb-complement and subject-verb structures.

According to Hu and Wen (1982), what CWO conveys is not only syntactic, but also semantic and pragmatic. In this study, syntactic WO errors mean that the WO violates certain grammatical rules and is context-free (Jiang, 2009). Semantic and pragmatic WO errors may be grammatically acceptable; yet the semantic WO error emphasises the deviance in meaning or context

whereas the pragmatic WO error stresses the irregularity in rhetoric or convention. In brief, the criterion for identifying WO errors in this study is the violation of grammatical rules, contexts, and conventions.

Under the three categories of syntactic , semantic and pragmatic WO errors, the attributive-headword structure has 389 errors altogether, out of which there are 375 syntactic errors, 12 semantic errors and two pragmatic errors. The adverbial-headword structure consists of 438 errors, out of which there are 374 syntactic errors, 33 semantic errors and 31 pragmatic errors. All the 305 errors of the verb-complement structure are syntactic ones, and all the eight errors of the subject-verb structure are syntactic ones, too. Although the questionnaire is mainly designed to elicit students' syntactic or grammatical errors, it is inevitable that students may also make semantic or pragmatic WO errors, because CWO is regulated not only by syntactic factors, but also by semantic and pragmatic factors. Hu (1994) claims that a specific sentence is usually a combination of syntactic, semantic and pragmatic dimensions and these three dimensions are interrelated and mutually determined. Kang (2015) echoes that semantic and pragmatic features rely on WO to act on the syntactic level. Therefore, WO errors tend to be multi-dimensional.

Under these three categories, the adverbial-headword structure has the largest number of semantic and pragmatic WO errors, followed by the attributive-headword structure; by comparison, the verb-complement and subject-verb structures do not see semantic or pragmatic WO errors. This indicates to some extent that WO of the former two structures is relatively more flexible than that of the latter two. However, although the attributive-headword and adverbial-headword structures allow for variation in the positioning of some modifiers at syntactical level, this variation may be semantically or pragmatically biased. Normally, adverbials are placed between the subject and the verb. Although adverbials like time expressions and location expressions can precede the subject, they have to comply with certain pragmatic norms or conventions. For example, the sentence '从去年开始他学习中文' is a deviation from language conventions and sounds unnatural, though grammatically acceptable. Usually, when the phrase '从去年开始' occurs in the sentence-initial position as an adverbial of time, it calls for a comma behind to suggest a pause in tone. Besides this, the alteration of adverbials' position can lead to a shift in meaning. For instance, the

sentence ‘我没有完全把这件事记在心里’ is grammatically correct but deviates from the given context, and the correct expression should be ‘我完全没有把这件事记在心里’. Concerning the attributive-headword structure, one of the semantic WO errors is ‘夏天的湖区是一个开满鲜花的季节’. Students misused ‘湖区’ as the subject and ‘夏天’ as the modifier of ‘湖区’; these two nouns should swap positions to make sense. When investigating students’ WO errors, the syntactic analysis is the fundamental approach; meanwhile, semantic and pragmatic factors should also be taken into consideration to ensure the accuracy of analysis.

7.2 Causes of L2 Chinese Word Order Errors

This section is related to the third research question, ‘What are the main causes of L2 learners’ WO errors?’ One of the major objectives of this study is to investigate the sources of WO errors. According to Jiang (2009) and Zheng (2014), there are a variety of factors that may influence L2 learners’ performance in the survey, such as the complexity of the target language, the differences between learners’ L1 and L2, learners’ proficiency level, and the task or content covered in the questionnaire/test.

Error Analysis (Corder, 1981) proposes that there are four sources of errors: the transfer of L2 learners’ native language, the influence of the L2, teaching techniques and communication strategy. Errors caused by these factors are called interlingual errors, intralingual errors, teaching-induced errors, and communication-strategy-based errors respectively. Interlingual errors are mainly due to the negative transfer of learners’ native language, which is especially evident in WO acquisition because learners tend to rely on their L1 to carry out word-for-word translation (Dulay, Burt and Krashen, 1982). Intralingual errors reflect L2 learners’ characteristics of learning rules of the target language, such as incorrect generalisation or overgeneralisation, incomplete application of rules, ignorance of rule restrictions, and wrong analysis (Richards, 1974). Teaching-induced errors are related to teachers, teaching materials, exercises and so on, such as wrong definition or explanation given by teachers, and improper examples or language usage in the textbook. Communication-strategy-based errors result from improper

communication strategy, such as using an approximation to express one's ideas, like saying fruit for apple. Regarding these four sources of errors, the former two, namely L2 learners' L1 transfer and the influence of their L2, are found to be significant in explaining errors covered in this study.

Ringbom (1987, p.47) suggests that error analysis cannot take an over-simplified view of language transfer, and not all errors can be explained as being caused by transfer. Meanwhile, he asserts that errors are usually divided into 'transfer errors' and 'over-simplified errors.' After a detailed analysis of L2 learners' WO errors, this study finds that there are four primary causes of errors: L1 transfer, underuse of L2 grammatical rules, overgeneralisation of L2 grammatical rules, and misunderstanding of meaning. To be more specific, errors caused by L1 transfer means that students make errors due to the influence of their native language. Underuse of L2 grammatical rules suggests that students fail to apply or insufficiently apply certain rules/patterns. Overgeneralisation of L2 grammatical rules means that students inappropriately apply the previously acquired Chinese grammatical rules/patterns to a wider range of cases. And the fourth cause, misunderstanding of meaning, not only refers to the misreading of the meaning of a word, phrase, structure or sentence but more importantly a lack of consideration of the context, semantic and pragmatic factors.

In view of the complexity of CWO and L2 learners' interlanguage system, one WO testing point usually entails different errors, which are caused by different reasons, and in some cases, the cause of one WO error is not exclusive. For example, in Question 11 of the combining task[17], where the testing point lies in the complement of quantifier, the WO error in '他们玩了游戏一个多小时' may arise from underuse of L2 grammatical rules or L1 transfer. Based on the discussion of WO structures covered in questions with relatively more errors, it is found that underuse of L2 grammatical rules is the dominant reason for errors in the three major WO structures (i.e. the attributive-headword structure, the adverbial-headword structure and the verb-complement structure), followed by L1 transfer, overgeneralisation of Chinese grammatical rules and misunderstanding of meaning.

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[17] 11. ①他们 ②玩了 ③游戏 ④多 ⑤一个 ⑥小时。(They have played games for over an hour.)

In brief, the reasons behind L2 learners' WO errors tend to be complicated and varied. In some circumstances, one WO error may be the result of a mixture of multiple causes. Although L1 transfer and inadequate L2 proficiency are two major resources of errors, given that the degree of L1 influence on each L2 learner varies and the interlanguage system of each L2 learner is also different, it is necessary for language instructors to carefully interpret students' errors, subdivide the causes of errors as much as possible, and try to probe into the causes from linguistic, functional and/or cognitive aspects.

7.3 A Linguistic Summary of English-Speaking Learners' Acquisition of Chinese Word Order

This study adopts Contrastive Analysis Hypothesis as the guiding theory; however, the results elicited from the survey reveal that this theory cannot explain all the WO errors. CAH predicts the possible language difficulties and errors that L2 learners may have through comparing the similarities and differences between the first language and target language. Yet, it dismisses the positive influence of L2 learners' native languages and cannot precisely or comprehensively predict learners' errors (Yao, 2009, p.14).

On the one hand, a certain number of difficulties arise when there are great differences between Chinese and English WO, and when there are similarities between Chinese and English WO, students will find it easier to come up with the correct WO. For instance, phrasal attributives like the prepositional phrase and verbal phrase are usually placed after the headword in English whereas they are always placed before the headword in Chinese because Chinese follows the Modifier-Before-Headword Principle. This discrepancy entails a number of errors in participants' responses. Yet on the other hand, some mistakes occur despite the similarities between Chinese and English, and the disparity or lack of equivalent does not always hinder students' application of CWO. For example, the complement of time consisting of '在' (at/on/in) + time expression is placed after the verb in Chinese and the corresponding adverbial of time in English is also placed after the verb; yet, many participants made mistakes in this testing point

because they failed to use the preposition ‘在’ to lead the time expression. In addition, according to the survey results, adverbials of time and location see the lowest error rate among all the WO testing points. Although Chinese and English differ in the placement of adverbials of time and location, this difference does not pose a challenge to most students.

As this study does not aim to examine the validity of CAH, the approaches and theories of Error Analysis, Interlanguage System and Cross-linguistic Influence are adopted to assist the analysis of the results. Error analysis usually focuses on three aspects: the specific language errors, the reasons for the errors, and the pedagogical strategies to correct the errors (Yao, 2009, p.31). The study of errors can validate the findings of contrastive studies as it can confirm or disprove the predictions made by contrastive linguistic studies (Corder, 1981, p.35). Making errors is inevitable and actually necessary in L2 learning, and correcting errors can provide significant ‘negative evidence’ for learners’ understanding of correct rules or concepts (Corder, 1981, p.5). According to Corder (1981, p.1), a good understanding of learners’ errors is essential for finding an effective method of eradicating errors, and studying learners’ errors is helpful for exploring the L2 acquisition process. What’s more, error analysis can facilitate L2 learners’ efficiency through clarifying what and how they learn in the SLA process. All in all, a comprehensive description of L2 learners’ idiosyncratic sentences facilitates the study of what learners know and do in a certain period, and consequently language instructors can help the learner to realise that his hypothesis is incorrect and to gain the correct L2 rules (Corder, 1981, p.25). Moreover, Corder (1981, p.35) emphasises that language instructors should not only ‘detect and describe errors linguistically but also understand the psychological reasons for their occurrence.’ For example, whether the error is caused by students’ confusion over the linguistic form or their misunderstanding about the context. Learning about the mental or cognitive factors in students’ erring enables instructors to offer more explicit and effective help or advice to students.

To discover more about the L2 acquisition process, we should carry out synchronic and longitudinal studies on L2 learners and make continuous descriptions of their interlanguage (Corder, 1981). The study of English-speaking learners’ CWO errors is indeed a study of their interlanguage system because these errors occur before learners’ achievement of the

ultimate Chinese competence. As language learning is not a simple linear process, language learners' interlanguage system develops in a relatively complex way, entailing various problems and errors worthy of discussion and analysis (Skehan, 2018, p.33). In this study, the survey results indicate that participants' interlanguage system is in a dynamic and inconstant status as they may make errors in one question but perform well in another that involves the same/similar WO testing point; furthermore, students may produce different answers in similar WO testing points. For example, in Question 14 of the matching task[18] and Question 10 of the revising task[19], with both questions involving the complement of direction, some learners produced the correct answer '他慢慢地走进教室来' in Question 14 but made mistakes like '大家都跳舞起来' or '大家都跳起来舞' in Question 10. To elaborate, in Question 14, students knew that the object '教室' (classroom) should be placed in the middle of the compound directional complement '进来' (into); however, in Question 10, they wrongly put the object '舞' (dance) in front of or after the compound directional complement '起来' (up), failing to realise that in both cases the object should be placed in the middle of the compound directional complement. Moreover, five learners who made mistakes like '他慢慢地走进来教室' in Question 14 produced a different but incorrect expression '大家都跳舞起来' in Question 10. In other words, these participants placed the object after the compound directional complement in Question 14, but they placed the object before the compound directional complement in Question 10, making two different errors. These errors mirror that L2 learners' grasp of CWO is not solid, and their interlanguage system is developing in a winding way, calling for clear grammatical instruction.

Selinker (2014, p.223) points out that as a result of learners' attempted production in the target language, learners' interlanguage system is never perfect, but deviates from the target language in structured ways and contains 'novel forms'. The investigation of CWO errors in this study has partly revealed the structured and idiosyncratic development of L2 learners' interlanguage system. For instance, WO of simple patterns like adverbials of time and location is easier to acquire while WO of more complex patterns like multiple attributives and verb-complement structures with objects is

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[18] 14. 他慢慢地走 A 进 B 来 C。教室 （）

[19] 10. 音乐响起，大家都跳舞起来。

much harder to grasp; additionally, some WO issues, such as using the prepositional phrase as a complement, are common problems for English-speaking learners. On the other hand, different students have different WO problems and different learning strategies. By and large, students' foreign language learning is an undulating process, which has both systematic and individual features and is trying to get closer to the target language.

Montrul (2014, p.81) asserts that cross-linguistic influence is a 'defining feature' of the L2 acquisition's cognitive process as 'many characteristic errors in second language acquisition are due to influence from the first language, or language transfer.' The data analysis of the current study shows that plenty of students try to use their L1 knowledge to compensate for their L2 knowledge gaps. For instance, some students translated 'two of my classmates' into '两个我的同学', which is a result of L1 influence. Furthermore, when L1 knowledge is not available and L2 proficiency is not adequate, students may choose the method of avoidance to cope with WO issues that they are not sure about. For example, Question 9 in the revising task[20] requires respondents to relocate the complement of result '完'. One student revised the sentence like '她下课就回家', avoiding the use of '完' and employing a relatively easier way to convey the meaning.

In short, L2 learners' acquisition of CWO is a complex and winding process, in which students make various errors yet they also make many attempts to approach the target language system. A certain number of the WO errors can be predicted by CAH and are related to L1 transfer. Also, L2 learners' WO errors reflect that their interlanguage system is developing in a dynamic and structured manner. On the one hand, students may inappropriately apply different rules to addressing the same/similar language task or wrongly use the same rule to deal with different language tasks; on the other hand, students positively employ their previously acquired knowledge or adopt strategies like avoidance and replacement to cope with new tasks. Despite the differences among the three levels' specific performance in the questionnaire, on the whole, WO issues related to quantifiers, prepositional phrases, verbal phrases, multiple attributives, verb-complement structures

[20] 9. 她上课完就回家了。

with objects, etc. are their common problems, calling for constant instruction and practice.

7.4 Teaching Chinese Word Order in Second Language Acquisition

So far, this study has analysed students' specific WO errors, discussed the WO difficulties and explored the error types and causes. Through a systematic analysis of the errors made by learners in the SLA process, we can find out how much L2 learners have learned about the target language and how far their L2 level has reached, which can provide language instructors with the evidence of how learners learn or acquire the language, so as to further understand learners' learning strategy and process (Yao, 2009, p.15). Based on the data analysis, this section proposes relevant pedagogical implications for teaching CWO to English-speaking learners.

First of all, WO plays a crucial role in signifying grammatical relationships in Chinese (Pan, 1997; Jiang, 2009; Yao, 2009; Zhao, 2009; Xu, 2015), and the attributive-headword, adverbial-headword, verb-complement, subject-verb and verb-object structures are the primary grammatical structures in Chinese; thus teaching WO related to these five structures is of great importance to TCFL.

In language teaching, especially in L2 classrooms, there are three major teaching approaches: focus on forms, focus on form, and focus on meaning. Focus on forms is a traditional structure-based approach to language teaching, involving a structural syllabus, instructional materials and the presentation and practice of a range of linguistic elements (Long, 1991; Laufer, 2006; Shintani, 2013; Ellis, 2016). Focus on form, first proposed by Michael Long in 1988, is a task-based approach which draws students' attention to linguistic elements within a communicative task context (Long, 1991; Laufer, 2006; Ellis, 2016). Focus on meaning is a content-based approach which attracts learners' attention entirely to meaning or communication, with little focus on grammar (Long, 1991; Ellis, 2016).

This study mainly concentrates on the former two approaches because the research focus is on learners' grammatical learning of the five basic Chinese WO structures. Focus on forms instruction breaks down language into discrete elements, such as words and grammar rules, and these linguistic forms are taught directly and explicitly in a linear and additive fashion (Long, 1991; Shintani, 2013; Ellis, 2016). Although focus on forms instruction mainly draws learners' attention to linguistic forms, it does not exclude the feature of meaning (Shintani, 2013). By comparison, focus on form instruction involves an incidental shift of learners' attention from meaning to linguistic forms while the overriding focus still lies in communication, with an emphasis on form-meaning mapping (Long, 1991; Shintani, 2013; Ellis, 2016). According to Ellis (2016) and Laufer (2006), in the focus on forms approach, learners see themselves as language learners and the language as the learning object, whereas in the focus on form approach, learners see themselves as language users and the language as the communication tool. In addition, Ellis (2016, p.415) notes that it is difficult for learners to attend to both form and meaning at the same time due to their limited language capacity. Therefore, this study suggests that language instructors adjust their emphasis on these two approaches in accordance with learners' levels.

Moreover, combining the layering method with the stratification method is also conducive to CWO teaching. According to Xing (2006, p.71), the layering method explores how instructors can categorise and teach different functions of a grammatical element and it suggests that the functions of most grammatical elements should be classified into 'basic function', 'commonly used function' and 'special function'; the stratification method concentrates on how to teach grammatical functions at different grade levels and it suggests that instructors should teach grammar points according to students' proficiency level. An integration of the layering and stratification methods with the focus on forms and focus on form approaches can help language instructors formulate a progressive teaching plan, in which the teaching content is targeted and prioritised, and thus greatly improve the efficiency of teaching WO concerning the five primary Chinese structures.

To be more specific, for beginners who have a very limited Chinese competence, it is helpful to adopt the focus on forms instruction as a major approach to clarifying the basic grammatical elements and general sequencing of each structure and sentence. Consequently, learners can

invest their energy in noticing and understanding the relevant WO rules. Given that the degree of difficulty varies with each WO structure, it would be better for WO instruction to start from the easier structures, such as the subject-verb structure and the verb-object structure. Focus on forms instruction can help beginners realise that the WO of Chinese subject-verb and verb-object structures is the same as in English, that is, both languages featuring the SVO word order. Consequently, students can better grasp these two structures and build more confidence in learning CWO. When it comes to the attributive-headword and adverbial-headword structures, focus on forms instruction can help students learn the specific forms and constituents of these two structures, and the WO principles that Chinese follows, such as the Modifier Before Head Principle, the Whole Before Part Principle, the Principle of Temporal Sequence, etc. To be specific, attributives and adverbials are always placed before the headword, and they comprise various elements, including nouns, verbs, prepositions, phrases, clauses and so on; as for the primary WO principles and rules, concepts suggesting a larger scope must precede those of a smaller scope, what happens first should be stated before what happens later, and the sequencing of multiple attributives and adverbials observes certain grammatical and rhythmic rules. Bearing these linguistic forms in mind, learners are able to compare the differences between Chinese and English WO and apply these grammatical principles and rules to dealing with CWO tasks.

Concerning the verb-complement structure, due to the gap between Chinese and English, it can be challenging for learners to grasp certain types of complements. Focus on forms instruction can help students learn the basic types, positions, constituents and functions of Chinese complements. As beginners' language competence is limited, instruction can first focus on easier types like complements of degree, complements of state, and complements of result, while complements of direction, complements of quantity and the negation of the verb-complement structure can be expounded later. After detailed instruction in the linguistic forms and basic function of a particular WO structure, focus on form instruction can be employed as a complementary method to facilitate learners' understanding of the meaning and commonly used function of these WO structures.

For the intermediate level, which includes both the lower-intermediate level and upper-intermediate level, a balanced combination of focus on forms and focus on form instruction can facilitate learners' acquisition of CWO. On the whole, these two approaches are of equal importance for the intermediate level, yet priority can be adjusted flexibly depending on the specific context and learners' performance. For example, in this study the Level 1 group consists of lower-intermediate-level learners who are studying abroad in their second academic year, and the Level 2 group includes upper-intermediate-level learners who have started their third year at the University of Leeds. When Level 1 students finish their first year of Chinese study in Britain and start studying abroad in Mandarin-speaking regions, focus on form instruction can be prioritised to encourage students to conduct conversations in Chinese in class. Some oral WO errors can be tackled later if they do not impede immediate communication and the special function or usage of some language points can be elaborated more to facilitate students' understanding and application of CWO. For Level 2 students, when they complete their one-year programme of studying abroad and start their third academic year in Britain, particular emphasis can be laid on focus on forms instruction to consolidate and improve WO acquisition. On the whole, for intermediate-level students, emphasising both focus on forms and focus on form instruction can help them further understand and apply CWO structures, especially the relatively complex constructions, such as multiple attributives and adverbials, prepositional phrase-related structures, verbal phrase-related structures, etc., and it can also help learners learn the special usage of some grammatical elements, such as using the verb-object phrase as adverbials.

For advanced-level students, they are usually equipped with higher Chinese proficiency, so focus on form instruction may gain the upper hand to advance these students' ability to match up form with meaning in terms of CWO. As focus on form instruction is a task-oriented approach, it motivates the learner to act as a more proactive communicator instead of a reactive learner when engaging in language tasks like speech, presentation, writing and translation. In this study, the Level 3 group consists of advanced-level learners who are in their fourth year of Chinese study. In the questionnaire, Level 3 did better in the attributive-headword, adverbial-headword and subject-verb structures than in the verb-complement structure. Since the advanced level generally has a better command of CWO, the linguistic form

of the verb-complement structure may not be very challenging for them. According to VanPatten (2015), to gain a wealth of acquisition, it is necessary for learners to make proper form-meaning connections in the comprehension process. As for the verb-complement structure, apart from learning the positioning and types of complements, understanding the specific function of each type of complement is of equal importance for advanced-level students.

Furthermore, Ringbom (1987, p.120) proposes that WO rules are somewhat abstract because they are concerned with general grammatical categories such as subjects, objects and adverbials instead of specific cross-linguistic counterparts; therefore, a detailed comparison between Chinese and English WO is essential for teaching CWO to English-speaking learners. According to Yao (2009, p.112), the similarities in grammar between Chinese and other languages can help L2 Chinese learners use L1 transfer to learn and master Chinese grammar, whereas the peculiarities of Chinese can lead to grammatical errors. Taking the subject-verb and verb-object structures as examples, after learning that both Chinese and English follow the SVO word order, English-speaking learners will find it much easier to learn these two structures.

In the course of teaching Chinese as a second or foreign language, errors related to grammar are usually systematic and predictable (Lado, 1957; Corder, 1981). The systematic trait means that some grammatical errors are not particular to an individual L2 Chinese learner, or an individual phenomenon of an L2 Chinese learner. Instead, these grammatical errors widely exist in L2 learners whose native language is not Chinese, and some L2 Chinese learners may repeatedly make the same error in different contexts. The predictable trait indicates that the grammatical errors made by L2 Chinese learners can be estimated by comparing the grammar of Chinese and the L2 learners' native language. Therefore, in the L2 Chinese classroom, instructors can ask students to pay more attention to WO issues that deviate widely from English, such as attributives comprising verbal phrases and prepositional phrases. Also, a detailed description of learners' WO errors, combined with explicit pedagogical explanation, can help L2 learners self-monitor, deal with and ultimately get over stubborn errors more effectively (Jiang, 2009). Furthermore, according to Yao (2009, p.169), grammatical instruction in the course of TCFL should focus on correcting L2

Chinese learners' grammatical errors, and one teaching strategy is to generalise the types of learners' errors. Through collecting learners' WO errors and classifying them into different types, instructors will be able to have an overall understanding of learners' problems in WO acquisition, learn the causes behind the errors and provide more effective feedback for learners.

In short, all the teaching methods and techniques should adapt to L2 learners' ability and needs, and aim to not only advance their linguistic knowledge but also develop their communicative competence.

7.5 Further Study in CWO Teaching and Learning

This project explores English-speaking learners' WO acquisition of the five primary Chinese structures, i.e. the attributive-headword, adverbial-headword, verb-complement, subject-verb and verb-object structures, with the research focus put on the first three structures. Through a detailed analysis of L2 learners' WO errors, this study identifies the WO difficulties, categorises WO errors into three major types, summarises four main causes of WO errors, and provides pedagogical implications related to CWO. However, due to the time and length limit of the PhD project, there are some aspects to be further improved and investigated. First of all, the sample size could be expanded. In this study, each L2 group comprises 15 participants, so the applicability and representativeness are limited to some extent. In addition, not every student's Chinese proficiency always develops in parallel with his grade level at university. Therefore, further research could identify participants according to their level of language proficiency. For example, HSK tests or other Chinese language tests can be used as criteria to determine participants' Chinese proficiency. Furthermore, since the questionnaire is a carefully designed method of data collection, future studies may consider adopting some casual forms, such as interviews and journals, to collect WO-related data in a communication-based context. In this way, we are able to have a closer look at learners' actual usage of CWO, and thus find the positive and negative evidence of students' learning of CWO.

From a linguistic point of view, this project investigates WO in terms of the five primary syntactic structures in Chinese and discusses WO errors at the sentence level. One possible topic for further research is to probe into semantic and pragmatic WO errors from a discourse perspective, and the unit of examining WO issues can be expanded to complex sentences, sentence groups, paragraphs, and so on. Moreover, longitudinal research can be adopted to investigate the sequence and development in L2 learners' acquisition of CWO. For instance, researchers can follow a group of beginners for one to three years and record students' application of CWO structures periodically. Thus we can have a clearer look at learners' interlanguage development, understand the WO problems they may have at different periods and come up with a more systematic pedagogical planning.

From a theoretical perspective, this project is implemented with the support of Contrastive Analysis Hypothesis, Error Analysis, Interlanguage Theory and Transfer Theory. These theoretical approaches are of great value for exploring learners' grammatical errors and learning of linguistic forms. It is worthwhile for future research to investigate L2 learners' mental mechanism for learning CWO by means of cognition/function-related theories or approaches, such as the Processability Theory (Pienemann, 1998) and the Cognitive Functional Approach. Moreover, to enrich the research of TCSL/TCFL, learners of other language backgrounds can be recruited as research participants, so we can find out if learners of other L1s have the same or different CWO problems as English-speaking learners.

To sum up, given the significance of WO in Chinese grammar and its complexity and variety, there are many aspects of CWO that need to be further explored in the context of SLA. It would be beneficial for more studies to be carried out to complement this project, such as probing into specific patterns of CWO from the linguistic or applied linguistic perspective, investigating the teaching and learning of CWO from the pedagogical perspective, or studying learners' mental processing of CWO from the cognitive perspective.

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List of Abbreviations

CA: Contrastive Analysis

CAH: Contrastive Analysis Hypothesis

CWO: Chinese word order

EA: Error Analysis

EWO: English word order

EX: example

HSK: hanyu shuiping kaoshi (Chinese Proficiency Test)

L1: first language

L2: second language

MBH: modifier-before-head

PBW: part-before-whole

PTS: Principle of Temporal Sequence

TCFL: teaching Chinese as a foreign language

TCSL: teaching Chinese as a second language

SLA: second language acquisition

SVO: subject-verb-object

SOV: subject-object-verb

VSO: verb-subject-object

WBP: whole-before-part

WO: word order

Appendix A
Acquisition of Chinese Word Order Research Consent Information Form

Aims of the project: To investigate students' acquisition of Chinese word order and provide pedagogical implications for teaching Chinese as a second language.

Investigator: Yinyin Peng, PhD student, East Asian Studies, LCS, Leeds

I'd like to invite you to participate in a research project that explores students' acquisition of Chinese word order. In line with University data protection policies, I will keep all personal information completely confidential; all data will be presented with complete anonymity. Additionally you are free to withdraw from the project at any time with no need for explanation.

What you will be asked to do: To complete a questionnaire that includes some background information and a questionnaire, which may cost you 1 to 1.5 hours to finish. In order to thank you for your help and time, an incentive of £10 will be provided per person. Alternatively, I can provide free Chinese tutoring for 1 to 1.5 hours if needed.

How the data collected will be used: The data will be analysed and presented anonymously in the investigator's PhD dissertation; in line with Leeds's commitment to working with students to further improve teaching and learning Chinese as a second language, the data may also be retained to contribute to an open access corpus of learner data for future research purposes. I'd like to provide you with the feedback of what I find, if you are interested.

Note participation in this project has no bearing on any assessment of your work.

Please read and complete the attached consent form if you are happy to take part, returning it direct to me personally or via email. You can contact me by email as shown below at any time.

Thank you for your help!

Yinyin Peng

ml16yp@leeds.ac.uk

Consent to take part in Leeds University Acquisition of Chinese Word Order Research Project	Add your initials next to the statements you agree with
I confirm that I have read and understand the information sheet dated March 2019 explaining the above research project and I have had the opportunity to ask questions about the project.	
I agree for data collected using my surveys or audio-recorded interviews to be stored and used in relevant future research in an anonymised form.	
I understand that relevant sections of the data collected during the study may be looked at by auditors from the University of Leeds or other regulatory bodies. I give permission for these individuals to have access to my records.	
I agree to take part in the above research project and will inform the researcher should my contact details change.	

Name of participant	
Participant's signature	
Date	
Name of researcher	Yinyin Peng
Signature	
Date*	

*To be signed and dated in the presence of the participant.

Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the letter/ pre-written script/ information sheet and any other written information provided to the participants. A copy of the signed and dated consent form should be kept with the project's main documents which must be kept in a secure location.

Appendix B
Survey on Chinese Word Order

Background Information

Name: _____ Year: _____ Native language: _____

Other languages that you speak (except your native language and Mandarin): _____

Questionnaire on Chinese word order

Multiple choice task	Matching task	Combining task	Revising task	Translation task
10	20	15	10	15

I. Multiple Choice Task: Choose an answer from options A, B, C, and D that you think is most appropriate. Please complete the task independently in your own time.

E.g. ----你昨天下午做什么去了？

----__A___。

A.我昨天下午在图书馆学习　　B.我昨天下午学习在图书馆

C.昨天下午我学习在图书馆　　D.我学习在图书馆昨天下午

1. 弟弟穿了_____黑色外套。

A.哥哥去年穿过的那件　　B.哥哥穿过的那件去年

C.哥哥穿过那件去年的　　D.那件哥哥穿过的去年

2. 这件事我_____？

A.怎么都不知道　　B.都怎么不知道

C.不都怎么知道　　D.怎么不都知道

3. 我的同桌____。

A.常常耐心地解答问题给我　　B.常常解答问题给我耐心地

C.常常耐心地给我解答问题　　D.耐心地常常给我解答问题

[同桌：deskmate; 耐心地：patiently; 解答：solve]

4. 我以为一切都已经过去，可是_____。

A.我还是放不下这件事十年了　　B.十年了我还是放不下这件事

C.十年了我放不下这件事还是　　D.我放不下这件事还是十年了

[一切: everything; 过去: has been over; 放不下: unable to let it go]

5. 市长表示，所有日程都____。

A.安排好得很　　B.很安排得好

C.安排得很好　　D.很好安排得

[市长：mayor; 日程：schedule; 安排：arrange]

6. 昨天我哪儿都没去，就在屋子里_____。

A.一整天看了书　　B.看书了一整天

C.书看了一整天　　D.看了一整天书

[一整天：a whole day]

7. 他明天_____。

A.就回家去　　B.就回去家

C.去回家就　　D.就去回家

8. 我_____他的名字。

A.不想起来　　B.想不起来

C.想来不起　　D.想起不来

9. 我喜欢去亚洲旅游，_____。

A.三年前我第一次去中国　　B.我去中国第一次三年前

C.第一次我去中国三年前　　D.三年前我去中国第一次

[亚洲：Asia; 旅游：travel]

10. Mary 对中国的历史很熟悉，_____。

A.也对中国的政治非常了解　　B.对中国的政治也非常了解

C.对中国的政治非常了解也　　D.None of the above

[熟悉：be familiar with; 历史：history; 政治：politics]

II. Matching task: There are three options A, B, and C indicating different positions in each sentence. To make every sentence complete, please choose an appropriate position for each character/phrase under the sentence. Select only ONE option per question. Please complete the task independently in your own time.

E.g. 我 A 昨天下午 B 图书馆 C 学习。

在（B）

1. 上个星期 A 从他那儿借来 B 的 C 小说，我已经还给他了。

那本 （ ）

2. 这张黑白 A 照片是我高中 B 生活 C 纪念。

的（ ）

3. 我和我 A 新 B 同学要去老师 C 家吃晚饭。

的 （ ）

4. 那个小孩一直 A 在旁边 B 偷偷 C 打量我。

地（ ）

[偷偷：secretly; 打量：look up and down]

5. 他勇敢 A 、自信 B 快步 C 走上讲台。

地（ ）

[勇敢：brave; 自信：confident; 快步：walk fast; 讲台：platform]

6. 她唱 A 歌唱 B 特别 C 好。

得（ ）

7. 生词这么 A 多，你记 B 不记 C 住？

得（ ）

[生词：new words]

8. 别担心，我 A 完全 B 把这件事 C 记在心里。

没有 （ ）

[担心: worrry; 完全: entirely]

9. 为了更好地了解中国文化，A 他 B 学习中文 C。

从去年开始（ ）

10. 他忙得 A 时间 B 也没有 C。

一点儿（ ）

11. 她 A 打扫 B 得 C 很干净。

房间（ ）

12. A 记住 B 生词有利于 C 语言学习。

大量（ ）

[有利于: be beneficial for; 大量：a great deal of]

13. 你要 A 是 B 看 C 懂这本书，我就给你讲一讲。

不（ ）

14. 他慢慢地走 A 进 B 来 C。

教室（ ）

15. 你可以找 A 有 B 同样兴趣 C 的人。

和你（ ）

16. 如果你现在很忙 A，我们 B 再谈 C。

一会儿（ ）

[谈：talk; 一会儿：a while]

17. 他是 A 我来中国后 B 认识的 C 中国朋友。

第一位（ ）

18. A 做 B 些运动 C 有利于身体健康。

多（ ）

19. A 他总是 B 发脾气 C。

因为一些小事（ ）

[发脾气: lose one's temper; 小事：trifles]

20. 我 A 把这个消息 B 告诉家人 C。

没有（）

Ⅲ. **Combining task:** There are multiple words and/or phrases in disorder below. Please make each line of words and/or phrases into a proper sentence according to the corresponding English interpretation. Please complete the task independently in your own time.

E.g. ①我 ②学习 ③昨天 ④下午 ⑤在 ⑥图书馆。

(I studied in the library yesterday afternoon.)

昨天下午我在图书馆学习。

1. ①我 ②买了 ③一张 ④桌 ⑤大 ⑥的 ⑦崭新(new) ⑧圆。

(I bought a big new round table.)

2. ①他 ②睡了 ③不确定 ④多久 ⑤自己。

(He was not sure how long he had slept for.)

3. ①9 月 ②2016 年 ③10 日，④Mike ⑤在 ⑥成都市 ⑦四川省 ⑧参加婚礼。

(Mike attended a wedding in Chengdu, Sichuan Province on 10th September 2016.)

4. ①我 ②喝 ③红酒 ④在 ⑤桌边 ⑥靠窗 ⑦的 ⑧和 ⑨朋友。

(I drank red wine with my friend at a table by the window.)

5. ①室友 ②我的 ③一个 ④把他 ⑤鞋子 ⑥上周 ⑦刚买 ⑧的

⑨扔了。 (One of my roommates threw away the shoes he had just bought last week.)

6. ①同学 ②我 ③在英国 ④的 ⑤带着 ⑥喜悦(joy) ⑦都 ⑧庆祝了(celebrated) ⑨圣诞节。

(All my classmates in Britain celebrated Christmas with joy.)

7. ①夏天 ②湖区 ③的 ④一个 ⑤是 ⑥开满 ⑦的 ⑧鲜花

⑨季节。(Summer in the Lake District is a season in full bloom.)

8. ①喝 ②少 ③晚上 ④些 ⑤茶，⑥会 ⑦否则 ⑧失眠。

(Drink less tea at night; otherwise you may be sleepless.)

9. ①他 ②闲逛(idled about) ③和朋友 ④来来回回 ⑤昨天 ⑥在街头 ⑦地。

(He idled about street corners back and forth with a friend yesterday.)

10. ①我 ②买了 ③精心(delicately) ④制作的 ⑤蛋糕 ⑥一盒 ⑦用十种材料。

(I bought a box of cakes which are delicately made from ten ingredients.)

11. ①他们 ②玩了 ③游戏 ④多 ⑤一个 ⑥小时。

(They have played games for over an hour.)

12. ①我们 ②三十 ③分钟 ④等 ⑤了 ⑥你。

(We have waited for you for 30 minutes.)

13. ①我 ②把 ③提出的 ④所有 ⑤同桌(deskmate) Tom ⑥脱欧(Brexit) ⑦的 ⑧关于 ⑨观点 ⑩记了下来。(I wrote down all the opinions about Brexit that were proposed by my deskmate Tom.)

14. ①这家 ②公司 ③出口了(exported) ④它的 ⑤一个接一个地(one by one) ⑥产品 ⑦向中国市场。(This company exported its products to the Chinese market one by one.)

15. ①已经 ②他 ③大学 ④了 ⑤毕业 ⑥去年。

(He has graduated from college last year.)

IV. Revising task: Please revise the inappropriate sentences below. Please complete the task independently in your own time. (You just need to rearrange these characters/phrases without addition or deletion.)

E.g. 我在昨天下午图书馆学习。

昨天下午我在图书馆学习/我昨天下午在图书馆学习。

1. 这个活动在英国一个城市叫利兹的举行。

[利兹：Leeds；举行：organise]

2. 这就是我的理由为什么想认识他。[理由：reason]

3. 他的腿受伤了，还走路得了吗?

4. 那两个月我度过的在北京是一段难忘的记忆。

[度过：spend; 难忘的：unforgettable; 记忆：memory]

5. Tom 工作过在中国四年。

6. 这位九十岁多的老人发表了关于养生的一篇文章。

[发表：publish; 养生：keep in good health]

7. 请你帮我照顾小狗一下，好吗？

[照顾：look after]

8. 你说我自私，你不是很自私吗也？

[自私：selfish]

9. 她上课完就回家了。

10. 音乐响起，大家都跳舞起来。

[响起：to sound/ring]

V. Translation task: Please translate the sentences below from English to Chinese. The underlined words are provided with Chinese explanation for your reference. Please complete the task independently in your own time.

E.g. I studied in the library yesterday afternoon. [library:图书馆]

昨天下午我在图书馆学习。

1. The little boy who wears glasses found his wallet that he lost two weeks ago. [wears:戴; glasses: 眼镜; found: 找到; wallet: 钱包; lost: 丢了的]

2. The tourism industry has developed rapidly all over the world during the past twenty years.

[industry: 旅游业; rapidly: 迅速; all over the world: 全世界]

3. Their first meeting is arranged at two o'clock on the afternoon of the coming Sunday. [meeting: 会面; arrange: 安排；the coming:下个]

4. Students in the classroom found it difficult to concentrate on study as it's very noisy outside. [classroom: 教室; found: 发现; difficult: 很难; concentrate on:专心; noisy: 吵]

5. Two of my classmates saw this little Chinese girl at the street corner yesterday. [classmates: 同学; street corner: 街角]

6. She built a castle with sand at the seaside last week.

[built: 建了; castle: 城堡; with sand: 用沙子; seaside: 海边]

7. Please give the flower I bought yesterday to your mom.

（Please translate this sentence into a Chinese Ba[把] sentence.）

8. She has been looking after me like an elder sister. [elder sister: 姐姐]

9. A clever young man like you is always full of expectation towards the future. [like you: 像你一样；young man: 年轻人; full of expectation: 充满期待]

10. This museum introduces the history of Xi'an to tourists in English.

[museum: 博物馆; introduces:介绍; Xi'an: 西安; tourists: 游客]

11. Only by climbing upward step by step can you reach the peak.

[climb: 攀登/爬; upward: 向上; step by step: 一步一步; reach: 到达; peak: 顶峰]

12. Now I have been living in Beijing for three years. [Beijing: 北京]

13. We left the coach station at 9 am and now we have been waiting for the taxi for over 30 minutes.

[left: 离开; coach station: 汽车站; waiting: 等; taxi: 出租车]

14. I miss the days when I hung out with my friends at the seaside.

[miss: 怀念; hung out: 闲逛]

15. My dad is a manager working in a big company. He drinks at least five cups of coffee every day.

[manager: 经理; at least: 至少; coffee: 咖啡]