

# **Morphosyntactic Inconsistency in Cross-linguistic Transfer: Pedagogical Implications for Teaching English Questions to Chinese EFL Learners**

## **ABSTRACT**

As one type of the most extensively used sentences, English questions are must-learn grammatical structures for English as a Foreign Language (EFL) learners. However, it is commonly seen that English learners across proficiency levels produce ungrammatical English questions. To determine the source of learners' erroneous production, we conducted a written test to collect hands-on data of 4 types of English questions produced by 81 Chinese EFL preliminary learners. Learners' achievement scores showed that learners from both higher and lower proficiency groups had similar difficulty producing questions. The statistics also showed morphosyntactic inconsistencies in learners' production were congregating on auxiliaries' choice and tense variation. Cross-linguistic transfer from L1 in English question acquisition for Chinese EFL learners was measured against two dimensions of Jarvis' (2000) methodological model. Influence from learners' L1 was found to be related to preliminary learners' morphosyntactic inconsistencies. The findings suggest that practitioners in an EFL context should raise learners' grammatical consciousness, and design production-oriented tasks, to improve learners' morpho-syntactic accuracy in English question formation.

**Keywords:** English questions acquisition; morphosyntactic errors; L1 Transfer; Chinese EFL learners

## **INTRODUCTION**

As one of the most typical sentence structures, English questions have been a primary

learning target for English as a Foreign Language (EFL) learners. Question formation is, as generally regarded, not of great difficulty for learners; however, learners, whether from the typologically far more different L1 language family as Chinese or Korean, or from other European languages that share some similarity such as Portuguese and Spanish, displayed problems in English questions production (Cowan, R. 2008, p.78-81). Extensive research has been done on English questions, studying the developmental sequence of question formation for ESL learners (Eskildsen, 2015; Ellis, R. 1984; Spada & Lightbown, 1999), focusing on the acquisition of certain question types (Guasti, Branchini, & Arosio, 2012; McDonough & Mackey, 2008; Zhu & Wu, 2011), or studying errors learners made in certain types of question (Lee, 2016; Pozzan, 2015). However, there is a dearth of in-depth research in the acquisition of English questions by secondary school learners in China's EFL context, despite such a large population of learners learning English as a compulsory subject of their curriculum. To gain a clear view of why learners have problems in question formation and to what extent it might be related to cross-linguistic transfer from L1, the present study did a typological analysis of learners' basic errors in 4 typical types of English questions. As specified by Richards & Reppen (2014), learners' errors in using a specific grammatical structure can be a useful source for teaching, and class activities can be designed around a collection of typical learner errors. This study also provides practical pedagogical implications for class practitioners in EFL contexts.

In this article, we intend to further the research on question formation by (a) providing a fine-grained analysis of error distribution and error classification with hands-on data from EFL secondary school learners; (b) discussing how cross-linguistic transfer influence learners'

acquisition of English questions; and (c) offering pedagogical implications.

## RESEARCH CONCEPTS AND FOUNDATION

### *Error Classification*

To better understand the foreign language learning process, we need to investigate what constitutes learner production problems, i.e., to study learner errors. The classic error analysis (EA) model goes as follows: collection of learner language, identification of errors, description of errors, explanation of errors, and evaluation of errors (Corder, 1975; Ellis, R., 2017). Given the criticism on EA studies, variables such as learner proficiency level, learners' L1, language learning experience, medium of language sample, and the production discourse (Ellis, 2017, p.47) are considered when collecting learner language for error analysis in this study. As Corder (1975, p.205) puts it, an adequate linguistic explanation is needed to account for the nature of errors produced in any particular learning context. To assign errors to the corresponding linguistic domain is the beginning of satisfactory classification and learner language production evaluation. However, there are no unanimous criteria for the classification of errors. For example, Bardovi-Harlig & Bofman (1989) divided errors into syntactic, morphological, or lexical- idiomatic classes; Corder (1975) classified errors by assigning them to levels of language; Lennon (1991) identified errors in terms of 'domain' and 'extent'; Thewissen (2013) categorized errors in 7 hierarchical linguistic levels. As the present study focuses on English question formation based on given statement sentences, learners' competence to operate verb phrases to form questions is tested. Thus, errors in verbal phrases are to be analyzed, which falls into the domain of grammatical errors according to Thewissen's (2013, p.81) classification, described as 'errors that break the

general rules of English grammar'. Therefore, the classification criterion in this study is adapted from Thewissen's grammatical error analysis framework.

Learner errors were first filtered with the criterion of obligatory occasions. The obligatory occasion refers to a test item for checking whether learners succeed in supplying or fail to supply the required morpheme to form a specific structure (Dulay & Burt, 1973, p.254). Learners' performance was measured on three kinds of conditions: supplying the required structure, failing by supplying none, or failing by producing an incorrect one (Brown, 1973, p.255, Dulay & Burt, 1973). In the present study, learner production was classified into: (a) correct questions, (b) questions with auxiliary errors, (c) sentences without creating an obligatory context (for example, producing the wrong type of questions), or production failure (learners left the answer blank).

When learners are required to form a Y/N questions with the given statement "*She went to school yesterday.*" learners may produce:

- (a) A correct question: *Did she go to school yesterday?*
- (b) A question with auxiliary error: *\*Did she went to school yesterday?/\*Does she go to school yesterday?/\*Does she went to school yesterday?*
- (c) A question without creating the obligatory context: *\*When/Why she went to school yesterday?/(no production)*

Questions with auxiliary errors produced by learners were sub-categorized with annotation. Annotations of errors were created partially referring to Thewissen (2013), who followed the 2008 version of Louvain Error Tagging Manual by Dagneaux et al. Thewissen's tagging

of errors is hierarchical, in the sense that it divides errors into main domains and its subordinate categories. Since the errors we analyzed are in the domain of grammatical errors and errors with the obligatory context of questions mostly revolve around auxiliaries, we marked them as GAUX (grammatical errors of auxiliaries), and further subcategorized them as GAUXC: grammatical mistakes in the choice of auxiliaries, GAUXO: grammatical mistakes in the word order of auxiliaries, etc. The categorization of auxiliary errors is specified in Table 1.

TABLE 1  
SEVEN ERRORS TAGS USED IN THE STUDY

Errors Tags	Definition	Examples of learner question formation
GAUXC	Grammar auxiliary choice.	He often has dinner at 6:00- *Has he often dinner at 6?
GAUXO	Grammar auxiliary order or placement.	He will be getting on board at 7:00.-*He will be getting on board at 7:00?
GAUXT	Grammar auxiliary tense.	They enjoyed the birthday party.-*Did they enjoyed the birthday party?
GAUXM	Grammar auxiliary morphology (including verb morphology).	Why did he give up?-*Can you tell me why he gived up?
GAUXA	Grammar auxiliary subject-verb agreement.	What does he do for a living?-*Nobody knows what he do for a living.
GAUX#	Grammar auxiliary error plus one more other error.	They went to summer school last week.-*What often did they went to the
/OTHER		

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example, GAUXC/OTHER: summer school?

Grammar auxiliary choice and

combined with one other error.

OTHER Other errors like spelling, They enjoyed the birthday party.\*When pronouns, preposition, and they enjoyed the birthday party? conjunctions; or building wrong types of questions.

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Exhaustive annotation of errors in 4 types of questions produced by 81 participants was done manually by the researchers. As shown in Table 1, the auxiliary grammatical errors we annotated include errors in auxiliary choice, marked as GAUXC, errors in tense: GAUXT, errors in subject-verb agreement: GAUXA, errors in order or placement of auxiliaries: GAUXO; errors in morphological errors: GAUXM, and mixed errors: GAUX#/OTHER. Errors were annotated as mixed errors, when two errors appeared in the sentence, with one being an auxiliary error. The mark # in GAUX#/OTHER refers to one of the specific auxiliary grammar errors on the list, which may be GAUXC/OTHER, GAUXO/OTHER, GAUXT/OTHER, GAUXM/OTHER, and GAUXA/OTHER. All errors other than those on verb or auxiliary were tagged as 'OTHER' (as described in Table 1). OTHER refers to errors that are not related to auxiliaries (pronouns, preposition, conjunctions, etc.)

### *L1 Transfer*

For learners who learn an additional language other than their mother tongue, either in a foreign language (FL) classroom setting or in a semi-natural second language (L2) communicative context, the influence of their L1 cannot be ignored. As shown in the research

of methodological issues in L1 transfer by Jarvis (2000), the L1 influence may fluctuate as learners progress in their L2 proficiency. Ellis, R (2017, p.393) also pointed out that L1 transfer does not always appear in a linear way; some errors appearing at initial developmental stages may continue to manifest at advanced stages. In the course of L2 learning, L1 transfer can be triggered or retarded at certain points of the developmental axis, which exerts an unavoidable influence in acquiring a new language. Therefore, for a study investigating the learning process difficulty, it is imperative to include L1 transfer as an influential variable.

Based on established research in L1 transfer (Corder, 1975; Gass, 1979; among many others), Jarvis constructed his L1 transfer research model by focusing on both learners' dynamic interlanguage performance in development and L1 background. L1 exerted influence on learning an L2 if learners displayed *'intra-L1-group homogeneity in learners' IL[interlanguage] performance, inter-L1-group heterogeneity in learners' IL performance, and intra-L1-group congruity between learners' L1 and IL performance.'*

Two potential effects from Jarvis'(2000, p.253) methodological framework of identifying L1 influence effects were adopted to analyze L1 transfer in this study. We adapted two hypotheses of L1 influence with intra-L1-group for the present study to evaluate the influence of L1 transfer on English question formation.

Hypothesis 1. The intra-L1-group homogeneity hypothesis assumes that learners who speak the same L1 behave uniformly when using the L2 (Jarvis, 2000, p.254). Regarding question formation in this study, learners from an identical L1 background (Chinese) are supposed to show a similar degree of difficulty in formulating the four types of questions

under investigation. Their errors are similar across different proficiency levels and language exposure.

Hypothesis 2. The hypothesis of intra-L1-group congruity between learners' L1 and L2 performance refers to the learners' use of a specific L2 feature paralleling their use of the corresponding L1 feature (Jarvis, 2000, p.255). This study hypothesized that learners' errors in questions parallel the corresponding feature of the same type of question in Chinese.

## METHODOLOGY

This study aims to explore what errors young Chinese learners of English may produce in forming English questions and to find out, to what extent, the influence of cross-linguistic transfer underlies their morphosyntactic inconsistency. The study follows a quasi-experimental design, with participants randomly chosen by class from two schools. The data were analyzed to demonstrate specific morphosyntactic inconsistency in English question formation for Chinese secondary school learners; thereafter, the underlying influence of cross-linguistic transfer on their accuracy was discussed.

### *Research Questions*

1. What are typical errors in English questions produced by preliminary Chinese EFL learners?

2. How does cross-linguistic transfer from learners' L1 influence their production of English questions?

### *Participants*

The empirical study was conducted with 81 participants from two secondary schools in southwest China: a foreign language specialized secondary school (FLS School) and a rural



public secondary school (RPS School). The FLS school represents the highest English teaching level in secondary schools in China, widely recognized for its high quality and specialization in foreign language teaching. The RPS school stands for the widely spread rural town secondary schools, in which English teaching does not seem adequate for creating a resourceful foreign language learning context.

#### *Written Tests.*

The written tests were conducted in a 40-minute self-study session in the classroom, with their English teacher supervising the test. The test paper was designed to test learners' production into building 5 categories of English questions, namely, Y/N questions, WH-questions, Tag questions, Embedded questions, and Choice questions<sup>1</sup>. 81 students' test results were analyzed.

#### *Test Material.*

The test paper was reviewed by two coordinators of the junior secondary school English teaching groups and two teachers with more than 15 years of secondary school English teaching. They confirmed that test items conformed to the criteria for the test of their teaching syllabus used nationwide.

## RESULTS

#### *Written Tests*

Table 2 shows the test results of the two groups of learners. The different proficiency level is shown in the mean scores, 34.447 for the higher proficiency FLS group and 16.294 for the lower proficiency RPS group, respectively. The result of Standard Deviation (SD) is 4.1536 for the FLS group and 7.8837 for the RPS group, which indicates that the

within-group difference in the lower-proficiency RPS group is much larger than that of the FLS group.

TABLE 2

DESCRIPTIVE STATISTICS OF WRITTEN TEST RESULTS

	Participants	Range	Minimum	Maximum	Mean	Std. Deviation
Score_FLS group	47	16	24.0	40.0*	34.447	4.1536
Score_RPS group	34	31	3.0	34.0	16.294	7.8837

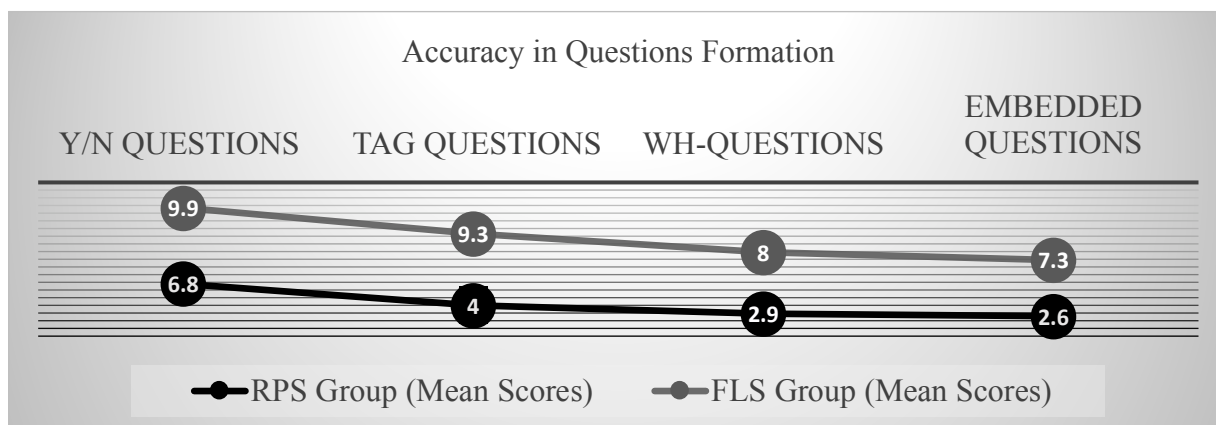
*Note.* \*The total score for the test is 40 points.

*The accuracy ranking of the four types of questions.*

Figure 1 shows the ranking of the accuracy rate in building 4 types of English questions for students from both schools. The accuracy rate was calculated for each type of question based on the mean scores participants got in the written test (Figure 1). The test results displayed two extremes of English proficiency at the same English learning stage. The FLS school group got a mean score of 9.9, 9.3, 8, and 7.3 for accurate production in *Y/N* questions, Tag-questions, *WH*-questions, and Embedded *WH*-questions respectively, while the RPS school group got mean scores of 6.8, 4, 2.9, and 2.6. The results showed a huge difference in accuracy in building questions for the two groups. However, the key finding is that they displayed the same gradient of accuracy when considering the type of question as a variable: *Y/N* questions>Tag questions>*WH*-questions>Embedded questions.

FIGURE 1

RANKING OF ACCURACY OF QUESTIONS FORMATION



*The Errors Distribution.*

There are altogether 848 erroneous questions collected from participants. Among these erroneous questions, 97 errors were from *Y/N* questions, 273 from *WH*-questions, 194 from tag questions, and 284 from embedded questions, indicating a positive correlation between the number of erroneous questions and the complexity of question types. Table 3 showed how errors were distributed in each of the 4 kinds of questions produced by the two groups of learners. Learner errors were first divided into auxiliary errors and other types of errors.

The total number of errors includes auxiliary errors and other types of errors. The number of unfilled items was listed in a separate column named production failure. The ratio of errors in auxiliaries shows that learners have difficulty in correctly using auxiliaries. The errors in forming *Y/N* questions cluster around auxiliaries for both groups, with a high percentage of 84.6% and 85.7%. Errors in embedded-questions for FLS group and tag questions also revolve around auxiliaries by showing a proportion of over 50%. Errors shown in embedded questions for the RPS group deviate a bit from the other 3 types of questions, as they display only 38.7%, the only one lower than 50%. However, the low ratio of GAUX

errors in embedded *WH*-questions displayed by the RPS group did not indicate that they have few problems in producing embedded *WH*-questions. On the contrary, RPS learners showed greater difficulty in producing embedded *WH*-questions because they produced as many as 100 *OTHER* type of errors besides 63 GAUX errors, and they failed in producing 89 embedded questions among the total number of 340 questions required in the test. The GAUX errors in embedded *WH*-questions produced by the FLS group were 76 among the total 121 errors, which showed that learners at higher proficiency level still had problems in using auxiliaries, despite generally performing better in embedded *WH*-question production.

TABLE 3

THE ERROR DISTRIBUTION AMONG QUESTIONS

Question Type	Group	GAUX	OTHER	Total Errors	Production failure	Non-scored items
<i>Y/N</i> questions (97)	RPS	77 (84.6%)	14 (15.4%)	91	18	109
	FLS	5 (85.7%)	1 (14.3%)	6	0	6
<i>WH</i> -questions (273)	RPS	49 (25.9%)	140 (74.1%)	189	53	242
	FLS	5 (6%)	79 (94%)	84	10	94
Tag questions (194)	RPS	87 (57.2%)	75 (43.8%)	162	43	205
	FLS	20 (65.5%)	12 (34.5%)	32	1	33
Embedded questions(284)	RPS	63(38.7%)	100 (62.3%)	163	89	252
	FLS	76(62.8%)	45 (38.2%)	121	6	127
Total		382	466	848	220	1068

*Note.* GAUX refers to auxiliary grammatical errors;

The morphosyntactic errors in using auxiliaries was studied with a more elaborate sub-categorization (Table 4). Both groups of learners had about 50% of their errors in choices of auxiliary (GAUXC) and tense of auxiliary (GAUXT), which showed that learners had more difficulty in auxiliary choice and morphological variation concerning tense than the order of auxiliary and subject-verb agreement.

TABLE 4

THE DISTRIBUTION OF SUB-CATEGORIES OF AUXILIARY ERRORS

Question Type	Group (errors numbers)	GAUXO	GAUXC	GAUXT	GAUXM	GAUXA
Y/N questions	RPS (77)	2(2.6%)	36(46.8%)	37(48.1%)	2(2.6%)	0
	FLS (5)	0	3(60%)	2(40%)	0	0
WH-questions	RPS (47)	13(27.7%)	13(27.7%)	21(44.6%)	0	0
	FLS (5)	0	0	4(80%)	0	1(20%)
Tag questions	RPS (87)	2(2.3%)	72(82.8%)	13(14.9%)	0	0
	FLS (20)	0	16(80%)	3(15%)	0	1(5%)
Embedded questions	RPS (63)	34(54%)	5(7.9%)	9(14.3%)	5(7.9%)	10(15.9%)
	FLS (76)	61(80%)	4(5%)	3(3.9%)	0	8(10.5%)

## DISCUSSION

The present study analyzed errors in the written production of English questions regarding Chinese EFL learners at two different proficiency levels. To be specific, the study investigated (a) the common errors committed by the higher-proficiency group and the

lower-proficiency group and the specific sub-categorization; (b) the cross-linguistic transfer exerted on English question formation for preliminary Chinese EFL learners. To clarify these issues, we ranked the accuracy of learners' production in terms of 4 types of questions and classified learner errors into 7 sub-categories. As hypothesized, learners from different proficiency levels shared similar characteristics in question formation. First, the written performance scores clearly showed the same contour in accuracy ranking in the four types of questions. Second, the errors unanimously clustered around auxiliaries despite a sharp contrast in accuracy between groups. These results provided further support for the influence of L1 syntactic features exerted on L2 question formation in preliminary EFL learners. Thereafter, we analyzed in what aspects learners' L1 affects their formation of English questions. The following sections discuss these issues in detail.

#### *Distribution of Auxiliary Errors.*

The auxiliary errors in English question formation are extensively found in different EFL learners (Spanish-speaking learners of English, (Eskildsen, 2015) or (Pozzan, 2015); Chinese learners who speak Cantonese, (Lee, 2016); Thai learners of English, (McDonough & Kim, 2009); Canadian L1-French learners, (Spada & Lightbown, 1999); among others). In McDonough & Kim (2009), auxiliary errors such as auxiliary omission and noninversion are found in *WH*-questions produced by Thai university undergraduate students. The present study results found similar problems in Chinese EFL learners, with auxiliary omission classified in the category of GAUXC, and noninversion of auxiliary in GAUXO. It shows that preliminary learners have difficulty choosing correct auxiliaries and dealing with the inflectional variation of tense in making questions. The results in this study also correspond

to Lee (2016) finding that learners produce errors in *WH*-questions that required *do* support and inflectional changes in verbs. However, little research has been done to further explore the exact errors in auxiliaries and why EFL learners so frequently make those auxiliary errors. The sub-categorization of learners' errors on auxiliaries in this study aims to locate the precise problems and determine the source of those difficulties for different EFL learners.

In the present study, with elaborate sub-categorization of auxiliary errors, we found that extensive auxiliary errors in auxiliary choice (GAUXC) and tense of auxiliary (GAUXT) appeared in learners' production of *Y/N* questions, *WH*-questions, and Tag questions, plus errors in auxiliary order produced in embedded questions (see Table 4). The error congregation can be explained from 3 perspectives: the influence of cross-linguistic transfer, the inadequacy of grammar consciousness, and the lack of effective teaching approach.

#### *Cross-linguistic Influence and English Question Formation*

In our study, we focus on L1 influence, since we assume such L1 influence to exist, to different degrees, in the whole foreign language learning process, much of which is weakened or eliminated because of FFI class teaching or as the learners' language proficiency develops. For example, in our study, learners constructed many questions like *\*What is the boy received?*, *\*When does he will come?*, or *\*Did/Do they enjoyed the party last night?*. In these sentences, learners displayed that in their question production they were aware of the requirement to use an auxiliary before the subject to form questions. However, learners cannot use auxiliaries correctly because in their FL developmental stage, the complex morphological variation on verbs, which they never faced in their L1, still constitutes a

difficulty for them. As learners' proficiency improves, their grammatical awareness on correctly using auxiliaries counteracts the negative L1 influence on auxiliary use, and auxiliary errors gradually disappear in their written production.

A number of previous research also offered evidence on the pervasive L1 influence in different aspects of English acquisition by non-native speakers (e.g., the acquisition of generic meaning with English articles for Spanish and Korean speakers, Ionin & Montrul, 2010); English lexical reference of Finnish-speaking and Swedish-speaking Finns learners of English, Jarvis, 2000); English question acquisition and developmental sequence for L1-French L2-English learners, Spada & Lightbown, 1999); the acquisition of English relative clauses for nine different L1 learners, Gass, 1979) among others).

In the present research, we studied errors produced by learners in written form to see how cross-linguistic transfer may impact Chinese EFL learners' acquisition of English questions. Two major differences between Chinese and English questions are considered in the present study. The first one is the word order of question formation in the two languages. In Chinese questions, word order is quite stable concerning subject-verb sequence, so that Chinese is a so-called *WH*-in-situ language, while in English, question formation involves movement of the auxiliary to initial position. The second difference is the function of the auxiliary in question formation. English largely relies on an operation of auxiliaries to form questions, while in Chinese, there is no auxiliary, and Chinese questions are formed by adding a particle (*Ma*, *Ba*, or *Ne*) or null-particle at the end of the sentence.



In the following section, we discuss the extent to which the difference in word order and function of auxiliary exert an L1 influence on learners' English question formation in the framework of intra-L1-homogeneity and L1-IL congruity hypotheses.

*The Intra-L1-Group Homogeneity in Question Production.*

The accuracy ranking results of learners' production of English questions from the two groups provide a piece of evidence that L1 influence must constitute one factor for the learning difficulty of English questions, for learners displayed traces of L1 influence in their errors. As stated in hypothesis 1, learners with the same L1 background display similar performance in producing a specific structure in question. In this study, learners from two groups of learners with highly different proficiency displayed intra-L1-group homogeneity in three aspects: (a) the same ranking of accuracy regarding question type as a variable; (b) congregation of errors in auxiliary choice and tense; (c) high frequency of word order errors in embedded questions.

As shown in figure 2, learners display a highly identical contour of accuracy rate among the types of questions under investigation, which, to some extent, lend support to the intra-L1-group homogeneity. The contrast in learners' test scores indicates that language proficiency does not constitute a variable in determining the ranking of difficulty of the 4 types of questions. Learners are learning English in an EFL context and their exposure to English is mainly in the classroom context. The same L1 background, to a large extent, must explain the identical accuracy ranking, as learners built the same prior L1 knowledge of question formation, which conforms with concepts that marked difference between L1 and

L2 constitutes the acquisition difficulty in the Marked Differential Hypothesis proposed by Eckman (1985).

Learners from both groups show homogeneous distribution of errors: low incidence in word order errors and congregation of errors in auxiliary choice and tense. From the data shown in Table 4, we can see that learners from both groups do not exhibit many problems in the word order in *Y/N* questions, *WH*-questions, and tag questions, which is different from the word order problems shown by participants of L1-French L2-English learners discussed in Spada (1999). In the present study, our participants' errors in the three types of questions unanimously congregate on auxiliary choice (GAUXC) and tense of auxiliary (GAUXT). Errors in forming English questions are shown with L1-specific homogeneity in Cowen (2008, p.78-80). Cowen (2008, p.78) illustrated that problems in question formation existed among learners of different L1: No do-support and non-inversion errors in *Y/N* questions by Portuguese and Arabic learners who only added intonation or question markers in a way similar to their L1 question formation; learners from L1 like Romance languages and Farsi formed *WH*-questions by placing a *WH*-word before a declarative and inverting the whole content verb before the subject in the way of questions formation of their L1. In the present study, learner errors are mainly on choice and tense variation, since there are neither auxiliaries nor inflectional affixes to mark tense in Chinese question formation. Learners' L1 influence can be one important reason to explain their homogeneous distribution of errors in auxiliary choice and tense.

In embedded questions, learners exhibit a high percentage of word order errors. Contrary to the rule of auxiliary fronting in forming typical questions as *Y/N* questions, *WH*-questions,

and tag questions, primary learners, both higher and lower level groups, show problems of non-inversion of auxiliary in embedded *WH*-questions. It seems learners from both groups unanimously displayed overapplication of the auxiliary-fronting rule in forming embedded *WH*-questions. Since participants are required to form embedded *WH*-questions with given direct questions, they need to put the word order of embedded questions back to declarative form. We must consider another possible reason for the high frequency of errors in embedded questions, as an effect of the test method used (transformation of direct questions into embedded questions). If it were for the latter, we might speculate that in spontaneous production of embedded questions in spoken form, learners will produce fewer word order errors because of the positive transfer from corresponding L1 (Chinese) word order of subject-verb sequence.

#### *L1-IL Congruity in Question Production.*

Learners' L1-IL congruity is shown in the use of auxiliaries. English questions are formed by moving auxiliaries in front of the subject, and Chinese questions are formed by adding a particle like *Ma* or *Ba* (Zhu & Wu, 2011). The results in Table 4 show that over 90% of learner errors (for both groups) in *Y/N* questions and Tag questions, and about 75% in *WH*-questions lie in GAUXC (choice of auxiliary) and GAUXT (tense of auxiliary). L1 transfer effects were not discerned in the L1-L2 word order difference. As stated earlier, the markedness of the structural difference in word order is likely to help learners notice the L1-L2 difference and use the correct form when building questions. However, the high percentage of errors in auxiliary choice and inflectional changes in tense in both groups suggests that learners' interlanguage production bears features of their L1 structure.

Declarative sentence:

Questions:

(1-a) She went to school yesterday.

(1-b) \*Did she went to school yesterday?

*Ta zuotian shangxue le.*

*Ta zuotian shangxue le ma?*

She yesterday went to school.

She yesterday went to school?

There is no auxiliary in questions in Chinese, while in English, an auxiliary is a must in questions. Besides, Chinese questions are formed by only adding a particle *Ma*, *Ba*, or *Ne* or null-particle at the end of a declarative sentence/statement, whereas English question formation involves movement of auxiliaries and necessary inflectional changes on the content verb. As stated in previous part, the markedness of L1-L2 structure differences enhances learners' alertness of using an auxiliary in front of the subject to form the question. As shown in the example sentence (1-b), learners correctly add a *did* at the beginning of the question, but they fail to make the inflectional changes on the word *went*. In Chinese, there are no inflectional changes, which are quite common in English verbs. In (1-b), learners' errors show the traces of Chinese question formation of not making any changes on the content verb *went*. Especially for low proficiency preliminary learners, extracting the auxiliary from the content verb which bears the person, number or tense features and then fronting the auxiliary to form questions proves to be a demanding task. The high-frequency morphosyntactic inconsistency of overusing auxiliary (*\*Did they enjoyed yesterday?*) indicates that learners may perform well in fronting the auxiliary but not removing the tense-marker carried on the content verb.

About 50% of auxiliary errors in *Y/N* questions (in the category GAUXC in Table 4) are on auxiliaries' choice. Erroneous questions such as *\*Does she is a teacher?* and *\*Do you have*

*got your new book?* frequently appear in lower-level learners' production, which shows that low proficient primary learners cannot exactly locate and extract auxiliaries from given declarative sentences. They simply learned the grammar rule of adding an auxiliary at the beginning to form a question, failing to choose the correct auxiliary from the given sentence and relate it to the verb's inflectional features. The reason for learners' inertia in extracting the auxiliary can be traced back to their L1 language influence. It seems that the lack of morphological variation in Chinese has a cost on learners, in that it takes much longer for them to acquire the inflectional changes in English (Hawkins & Liszka, 2003; Lee, 2016). Chinese learners' difficulty of acquiring languages with complex morphology, such as Spanish (Dowens, & et al.; 2011), also lends support for the L1 language influence.

However, our study explores the L1 influence in question formation at the preliminary English learning stage. Most of the L1 transfer phenomena discussed here will gradually disappear in learners' written production as they advance in their English proficiency. However, whether some L1 influence is persistent, or at least implicitly residual, remains unknown. Therefore, further studies on advanced EFL learners' implicit knowledge and spontaneous oral production in this respect is necessary for elucidating the issue.

#### *Explicit Grammatical Knowledge and English Learning in EFL Contexts*

In the EFL context, explicit grammar instruction played an important role in language classes. In this study, teachers from the two schools surveyed also confirmed that they adopted a communication-oriented form-focused instruction (FFI). In such a teaching context, to raise learners' consciousness of grammar weighs a lot in facilitating learners' acquisition of English questions. For both teenagers and adult learners, understanding how target

language rules work underlying their production is an important part of their learning process (Scheffler & Cinciała, 2011). Consciousness-raising helps learners understand a specific grammatical feature and develop learners' production of a grammatical form (Ellis, 2002a; Fotos, 2002). From questions produced by learners, we can infer that learners have built some grammar knowledge, but the consciousness is not consolidated enough to help them produce accurate structures. As explicit awareness of grammatical form contributes to learner production and helps them progress through interlanguage development (Ambridge & Rowland, 2020; Larsen-Freeman, 2015), it is important to include consciousness-raising tasks in the class design of English questions instruction.

#### Pedagogical implications

The intra-L1 group homogeneity and IL-L1 congruency showed in question formation indicate that cross-linguistic influence from learners' L1 constitutes a problem for Chinese preliminary EFL learners. The morpho-syntactic inconsistency in learners' production, on the one hand, stems from the discrepancy of Chinese and English question formation on the other hand, it also results from lacking facilitative language context for learners to use and practice their language skills, which thus caused stronger influence from learners' L1. To reduce the impact of cross-linguistic influence sourced from L1-L2 differences, raising learners' consciousness of the structure, and providing learners with adequate context to produce what they have learned is significant in teaching practice.

#### 1. Consciousness-raising tasks

In the EFL context, explicit grammar instruction played an important role in language classes. To raise learners' consciousness of grammar weighs a lot in facilitating learners' acquisition of English questions. For both teenagers and adult learners, understanding how target language rules work underlying their production is an important part of their learning process (Scheffler & Cinciała, 2011). Consciousness-raising helps learners understand a specific grammatical feature and develop learners' production of a grammatical form (Ellis, 2002; Fotos, 2002).

Consciousness-raising (CR) tasks promote learners' acquisition in that CR involves processes of implicit knowledge acquisition: noticing, comparing, and integrating. Noticing and comparing are directly attended in the CR tasks, while integration is constrained by learners' developmental stage (R. Ellis, 2002). For EFL learners at the preliminary level, noticing helps them to be conscious of the target linguistic feature presented in the input, which may otherwise be ignored (R. Ellis, 2002). In comparing linguistic features they noticed with their present mental grammar formed in their L1 knowledge, learners become aware of the difference between L1 and L2. As long as learners build up explicit grammar knowledge and reach their developmental stage, they reach the integrating process, in which they incorporate the new knowledge into their present mental grammar, and thus acquire the target structure.

## 2. Production-Oriented Approach

As learners lack a natural context to practice and produce, an appropriate approach that suits EFL learners to promote their production helps mitigate the problem. The

Production-Oriented Approach (POA) proposed by Wen (2016) is tailored for Chinese EFL learners. The POA, which fully considered the Chinese EFL context, has been practiced in tertiary classroom instruction in China and proved to improve the quality of learner's language production. As Wen (2016) suggested, POA might also work for learners from primary and secondary teaching contexts if effectively implemented.

The POA comprises three stages of instruction, which are (a) motivating, (b) enabling, and (c) assessing.

(a) Motivating activities are designed based on the output-driven hypothesis. In this stage, learners are motivated to finish a productive activity, and they understand what is needed to fulfill the task (Wen, 2016). The motivating activities will help learners maintain initiative to conduct enabling activities, which ensure the success of their production.

(b) Wen (2016) suggested the core of the enabling phase is teachers' carefully selecting material pertinent to the assigned task, which can then be used as enablers in order to help learners gain scaffolding to approach their own zone of proximal development. Learners are also encouraged to selectively learn what they need to fulfill their productive activity. Considering the smaller volume of L2 language knowledge and learning capacity of preliminary learners in secondary school, we suggest a modified version of POA that brings CR tasks into the essential stage of enabling.

(c) In the assessing activity, learners' language products are presented and evaluated, which can be in written or oral form. The assessing phase exists in the enabling stage when



learners are consciously working on language inputs or in presenting specific language products.

### 3. An integrated design of POA and CR tasks

The POA is originally designed for adult learners at the university stage. In this study, we suggest a modified version of POA by adding consciousness tasks in the second phase to take into account learning characteristic of preliminary EFL learners. Based on the key hypotheses and the theoretical foundation of CR tasks and POA, we present an integrated version of POA and CR tasks, as shown in Table 5.

Table 5. Phases and tasks of an integrated version of POA and CR tasks

Phases	Specific Tasks
1. Motivating	<ul style="list-style-type: none"> <li>• Assigning a productive task;</li> <li>• Guiding learners to find out what they need to accomplish their productive tasks.</li> </ul>
2. Enabling	<p>CR-tasks</p> <ul style="list-style-type: none"> <li>• Noticing the target structure in input material;</li> <li>• Forming consciousness of the target structure by comparing with their present grammar knowledge;</li> <li>• Building up explicit grammar knowledge.</li> </ul>
3. Assessing	<ul style="list-style-type: none"> <li>• Learners' presenting of language products.</li> <li>• Learners' evaluation and feedback on language products;</li> <li>• Teachers' evaluation and feedback on language products.</li> </ul>

The integrated version of POA follows Wen's (2016) three phases of motivating, enabling, and assessing. In EFL contexts, the scarcity of natural communicative context requires more on the teachers' choice of effective teaching approach and design of meaningful tasks. For preliminary EFL learners, introducing visual incentives (for example, picture cues, or video cues) into productive activities in the motivating phase can help elicit

learners' question production. Meanwhile, a clear instruction of tasks in the first phase is key for subsequent successful productions. The enabling phase for preliminary EFL learners is different from the original POA in virtue of learners' inadequacy of fulfilling demanding tasks for tertiary learners. The CR-tasks for enabling learners to accomplish productive activities requires teachers to help learners to "focus on a known source of difficulty" and to "enable learners to discover the rule" (Ellis, 2002). Raising learners' consciousness of target structures offers them scaffolding to accomplish the assigned productive activities. In the assessing phase, teacher's feedback and learners' peer feedback on language products serves as 'auto-input' to enhance learners' acquisition of target structures.

## **CONCLUSION**

In this study, we used the written test to measure learners' ability to form four typical types of questions correctly. Their performance was analyzed on the accuracy ranking of the four types of questions and a fine-grained sub-categorization of learners' errors. Analysis of learners' morphosyntactic inconsistency was conducted to elaborate on the exact source of errors learners produced, and L1 transfer was discussed to tackle their learning difficulty at a preliminary learning stage. Overall, this study showed that: (a) preliminary Chinese EFL learners have great difficulty in choice and morphological variation of auxiliaries in English question formation; (b) learners from the same L1 displayed similar problems in forming English questions, independent from their proficiency level; (c) cross-linguistic influence plays an important role in learning difficulty of English question formation for EFL learners at the preliminary stage. Therefore, teachers in the EFL context should take full consideration of the L1 influence in designing teaching tasks. On the basis of the specific problems raised

by the structure of English questions for Chinese learners, this study further provides general pedagogical implications in how to deal with difficulties in learning a foreign language structure for EFL learners, how to provide effective input, and how to promote learners produce high-quality language products.

The findings reported in this study raise questions for further studies. First, whether the errors appeared in the preliminary EFL stage will completely vanish, or any specific errors persist as learners gain high English proficiency. Second, further studies are needed to find out whether EFL learners can gain native-like accuracy in English question formation. Studies should be conducted in different EFL contexts to tackle whether learners from different L1 differ in their difficulty in English question formation, which may provide further evidence of how L1 influences the acquisition of the L2 language structure. The findings also suggest that the degree of consciousness of grammatical knowledge can be an important variable that affects learners' accuracy in forming English questions.

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#### NOTES:

1. Choice questions were not analyzed, for we found that it did not test any new grammar knowledge other than verbal phrases or W-words choice, which have already been tested in the analysis of Y/N questions and WH-questions.

Appendix

WRITTEN TEST OF QUESTION FORMATION

疑问句测试

(40 minutes: 40 分钟)

School 学校: \_\_\_\_\_ Grade&Class 年级班级: \_\_\_\_\_

Name 姓名: \_\_\_\_\_ Gender 性别: \_\_\_\_\_ Age 年龄: \_\_\_\_\_

1. *Sentence Transformation* 句型转换

*Please change the sentence into a Yes or No question.*

*请将下列句子变为一般疑问句。*

1. She is a teacher.

\_\_\_\_\_?

2. He did his homework.

\_\_\_\_\_?

3. He often has dinner at 6:00.

\_\_\_\_\_?

4. They can speak French.

\_\_\_\_\_?

5. You have got your new books.

\_\_\_\_\_?

6. I like watching TV.

\_\_\_\_\_?

7. She went to school yesterday.

\_\_\_\_\_?

8. He will be getting on board at 7:00 P.M.

\_\_\_\_\_?

9. They enjoyed the birthday party.

\_\_\_\_\_?

10. I would like to have an ice cream.

\_\_\_\_\_?

2. *Pattern Shift* 句型变换

*Please ask a question for the underlined part to form a WH-question.*



请根据划线部分提问, 构成特殊疑问句。

1. I want to buy a new schoolbag.  
\_\_\_\_\_?
2. He will come at 12:00A.M.  
\_\_\_\_\_?
3. They went to the summer school last week?  
\_\_\_\_\_?
4. My uncle will visit us tomorrow.  
\_\_\_\_\_?
5. The boy received a toy car.  
\_\_\_\_\_?
6. The man in the office is my teacher.  
\_\_\_\_\_?
7. The girl in red skirt is my friend.  
\_\_\_\_\_?
8. There is a pencil in the bag.  
\_\_\_\_\_?
9. There are some cakes in the box.  
\_\_\_\_\_?
10. Their classroom is closed.  
\_\_\_\_\_?

### 3. Sentence Completion 补全句子

Please fill in the blank on the line and make the sentence into a tagged question.

请将以下句子划线部分补充完整, 构成反义疑问句

1. She is good at dancing, \_\_\_\_\_?
2. It's not the proper time to leave, \_\_\_\_\_?
3. He comes back home early today, \_\_\_\_\_?
4. They will come to visit you next week, \_\_\_\_\_?
5. The workers can't come on time, \_\_\_\_\_?
6. She went away, \_\_\_\_\_?
7. Let's go to the supermarket, \_\_\_\_\_?
8. Come to the library earlier, \_\_\_\_\_?
9. Don't bother him, \_\_\_\_\_?
10. You think what he said is right, \_\_\_\_\_?

4. Sentence Rewriting 句子改写

Please rewrite the sentence into an indirect or embedded question.

请用给出的疑问句将以下句子补充完整，构成间接疑问句或复杂疑问句。

1. What am I going to do?

I don't know \_\_\_\_\_

2. Why did he give up?

Can you tell me \_\_\_\_\_

3. Will you come tomorrow?

We would like to know \_\_\_\_\_

4. Is there a supermarket nearby?

Do you by any chance know \_\_\_\_\_

5. What does he do for a living?

Nobody knows \_\_\_\_\_

6. What can we do for you?

We'd like to know \_\_\_\_\_

7. Who is the man standing at the door?

She has no idea \_\_\_\_\_

8. Are you going to finish the whole project?

Can you tell us \_\_\_\_\_

9. Is it proper for us to leave now?

I don't know \_\_\_\_\_

10. Have you got the final permission?

Would you let us know \_\_\_\_\_

5. Sentence Formation 连词成句

Please connect the words into a grammatical choice question.

请用给出的单词组成完整的句子，构成选择疑问句。

1. like, would, you, chocolate, ice cream, or

\_\_\_\_\_?

2. want, which, you, or, do, a book, a toy

\_\_\_\_\_?

3. you, can, or, sing, dance

\_\_\_\_\_?

4. which, do, can, you, or, sing, dance

\_\_\_\_\_?

5. he, is, a teacher, a student, or?

\_\_\_\_\_?

6. what, he, a teacher, or, is, a student?

\_\_\_\_\_?

7. do, like, to, go, you, or, stay

\_\_\_\_\_?

8. you, which, like, do, to go, to, stay, or

\_\_\_\_\_?

9. you, can, can't, help, or, you, me

\_\_\_\_\_?

10. can, help, me, you, not, or

\_\_\_\_\_?

6. Please rank exercises 1 to 5 according to the difficulty for you (from the easiest, 1, to the most difficult, 5). 请将本套试题的5道大题根据你的做题难度排序。(排序方式: 由简到难, 以数字1, 2, 3, 4, 5标出, 数字越大, 难度越大)

\_\_\_\_ 1. Sentence Transformation 句型转换

\_\_\_\_ 2. Pattern Shift 句型变换

\_\_\_\_ 3. Sentence Completion 补全句子

\_\_\_\_ 4. Sentence Rewriting 句子改写

\_\_\_\_ 5. Sentence Formation 连词成句

This is the end of the test!

此处为本卷结尾处。