

# ***Relationship Between Chinese Non-English Majors Students' Identification of Negative Transfer of L1 in C-E Translation and Their CET-4 or CET-6 Scores***

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**Abstract:** College English Test Band 4 (CET-4) and College English Test Band 6 (CET-6) are administered nationwide, which is of great significance to non-English major students in China. English is the second language of Chinese college students, so it will inevitably have some negative transfer of L1 (first language, the same as mother tongue) in their second language output, but the relationship between negative transfer of L1 and their CET-4 and CET-6 scores is still lack of a unified explanation. Therefore, this study takes 91 Non-English Majors students' identification of negative transfer of their mother tongue in Chinese to English (C-E) translation and their CET-4 or CET-6 scores as the research objects and uses SPSSAU to analyze the data. The results show that: there is a significant negative correlation between the behavior and thinking mode that may lead to negative transfer and CET-4 (CET-6) total score; CET-4 (CET-6) total score and the identification of negative transfer of L1 in translation are significant positive related. Therefore, colleges and universities should teach non-English majors students the phenomenon of "negative transfer in mother tongue", and guide students to think and express in the way of second language native speakers when producing second language; Similarly, students should enhance their awareness of the negative transfer of their mother tongue in translation, in order to improve their translation quality, second language ability and CET-4 and CET-6 scores.

**Keywords:** negative transfer, C-E translation, CET-4, CET-6

## **1. Introduction**

According to Odlin, "language transfer" can also be called "cross language influence". This phenomenon refers to the influence caused by the similarities and differences between the target language and any language that has been acquired (or has not been fully acquired) [1]. It can refer to the influence of mother tongue on second language acquisition, that is, "basic transfer", or the borrowing of mother tongue from second language, that is, "borrowing transfer" [1].

There are two kinds of language transfer. The first is positive transfer. There may be some similarities between the mother tongue and the target language, and these similarities will accelerate some development sequences in the interlanguage, thus promoting second language learning [2]. The second is negative transfer. It is because second language learners mistake some different forms between their mother tongue and the target language for the same [2]. This will slow down learners'

learning efficiency, increase their errors in second language, and have a negative impact on second language learning.

In previous study, Ren conducted a study on the negative transfer of mother tongue in high school English writing learning. The study showed that high school students would have negative transfer of L1 (first language, the same as mother tongue) in vocabulary, syntax, discourse and other aspects, and gave some solutions for students themselves and English Teaching [3]. Liu studied the negative transfer of L1 in writing of the students from newly-established colleges whose performance were comparatively poor, classified and analyzed the negative transfer errors of L1 in the subjects [4]. Li analyzed the overall situation of Chinese junior high school students' English learning, analyzed the negative transfer of mother tongue in pronunciation, vocabulary and syntax by using error analysis and questionnaire survey, and gave targeted teaching strategies [5]. In 2015, Caijintang focused on the mother tongue transfer of the connecting means used by Chinese college students in narratives; Subsequently, in his article published in 2018, he conducted a two-year longitudinal survey on Chinese college students, studied their mother tongue transfer in the use of Adj + N collocations, and made an explanation using a psycholinguistic model [6,7].

The author finds that there is little research on translation in the study of mother tongue transfer. Therefore, this research takes Chinese non-English majors students as the subjects of this research, analyzes the relationship between their identification of negative transfer of L1 in translation and their College English Test Band 4 (CET-4) or College English Test Band 6 (CET-6) scores, and hopes to analyze the corresponding reasons and solutions, so as to improve students' translation ability and CET-4 and CET-6 scores.

## **2. Method**

### **2.1. Research Subjects**

This research involves 112 students, and 112 questionnaires were distributed. Ninety-one valid questionnaires were recovered, and the recovery rate was 81.25%. The subjects of this research are 91 Chinese college students, 39 males and 52 females, who have taken CET-4 or CET-6 at least once.

All the research subjects are non-English majors, such as architecture, Chinese language and literature, information and computing science, public utilities management, etc., which are involved in arts, science, industry and commerce, thus, have certain universality and representativeness. The selected subjects cover all grades from freshman to fifth year, and their English performance is different, so it can reflect the overall English translation level of Chinese college students and has a certain universality.

### **2.2. Research Tools**

This research distribute questionnaire to collect data. Considering the time taken by students to answer and the size of the questionnaire, the author divided the questionnaire into the following three dimensions:

First, the subjects' personal information, such as grade, gender, major, CET-4 (CET-6) writing and translation scores, and CET-4 (CET-6) total score.

Second, the frequency of the subjects' behaviors and thinking patterns that lead to the negative transfer of L1 in translation. This part lists six representative negative transfer phenomena of mother tongue in translation, and requires the subjects to choose the frequency of their own in the Chinese-English translation, which are "never", "rarely", "sometimes", "often" and "always".

Third, the choice of translation examples. Based on the Chinese original text provided in the questionnaire and the two English translations provided, the participants were asked to choose a translation that they believed was not affected by negative transfer of their mother tongue, Chinese.

### 2.3. Data Objectivity

CET-4 and CET-6 are national tests with high reliability and validity. Due to the authority of the test, it is known that the difficulty and scoring standard of each test are relatively uniform, and there will be no excessive difference in scores due to different times of taking the test. At the same time, previous studies have pointed out that writing ability is closely related to translation ability [8]. Therefore, the author chooses the writing and translation scores in CET-4 and CET-6, which are widely attended by Chinese non-English majors, as a reference to measure the students' translation ability, which is also more appropriate.

Because translation and writing are highly correlated, and the negative transfer of language in Chinese-English translations also appears in English Writing [8]. Similarly, the common phenomenon of negative transfer of L1 in writing also appears in translation. Therefore, the author refers to Wu's partial questionnaire on high school students' English writing and negative transfer of L1, and investigates students' behavior and thinking mode that may lead to negative transfer of L1 in translation [9].

The third part is about the selection of translation examples. The examples selected by the author are all from Pinkam's *The Translator's Guide to Chinglish*. The book focuses on the research and revision of Chinglish, which is also the production produced by the negative transfer of the mother tongue of second language learners whose mother tongue is Chinese [8]. Pinkam's book aims to help translators or those who write directly in second language modify the elements of Chinglish in their works to form into real English [10]. Therefore, in the third part of the questionnaire, the author selected two English sentences, A (Chinglish version) and B (native English version), which are representative from different chapters in the book and are not difficult for non-English majors to understand, as the target text for the subjects to choose, and its Chinese translation as the source text for the subjects' reference.

## 3. Results

### 3.1. Analysis on the Frequency and Correlation of Writing and Translation Scores and Total Scores of CET-4 (CET-6)

CET-4 or CET-6 has a total score of 710, and the full score of writing and translation is 249, if the total score reaches 425 or above, it will be deemed as passing. Because some subjects may not remember their specific scores, especially those in the writing and translation part, the author, in order to facilitate the subjects to answer, divided the writing and translation scores of CET-4 and CET-6 into 10 levels: "0-60 points", "60-100 points", "100-150 points", "150-200 points" and "200+ points"; and the total score of CET-4 and CET-6 into 14 levels: "0-424 points", "425-480 points", "481-530 points", "531-580 points", "581-630 points", "631-680 points" and "681-710 points" for the subjects to choose according to different score segments.

The results showed that the subjects with a score of "100-150" in CET-4 writing and translation were the most, accounting for 40.66%; The subjects with a total score of "0-424" in CET-4 were the most, accounting for 41.76%. The detailed information is listed in figure 1 and figure 2.

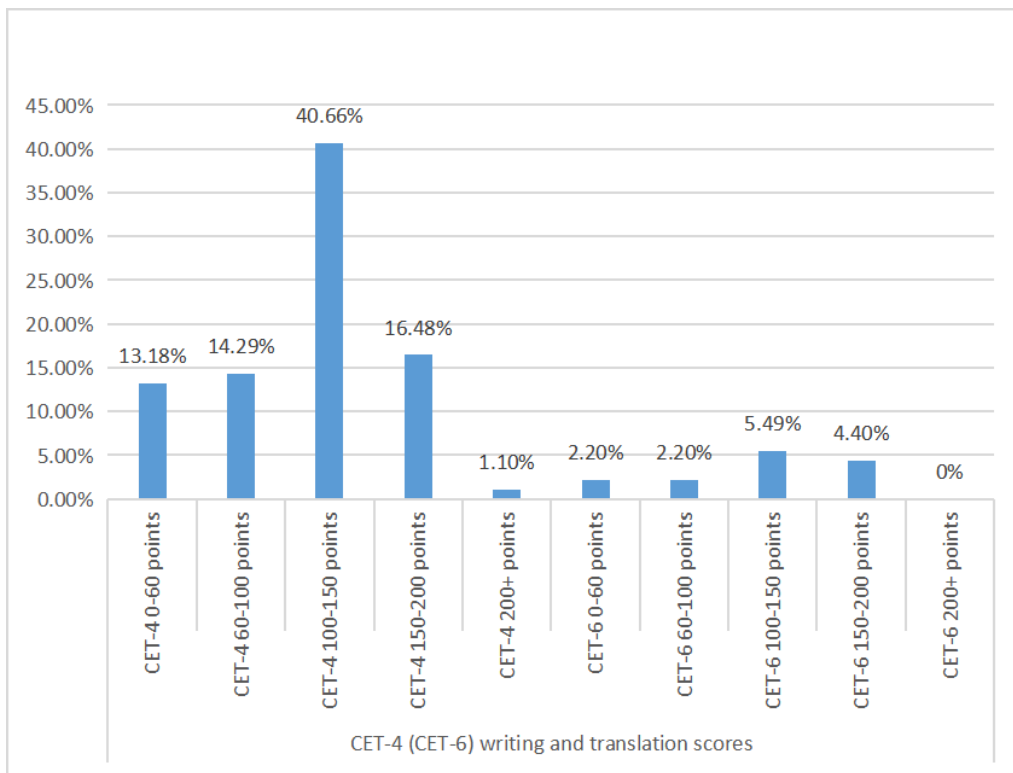


Figure 1: Frequency analysis results of CET-4 (CET-6) writing and translation scores.

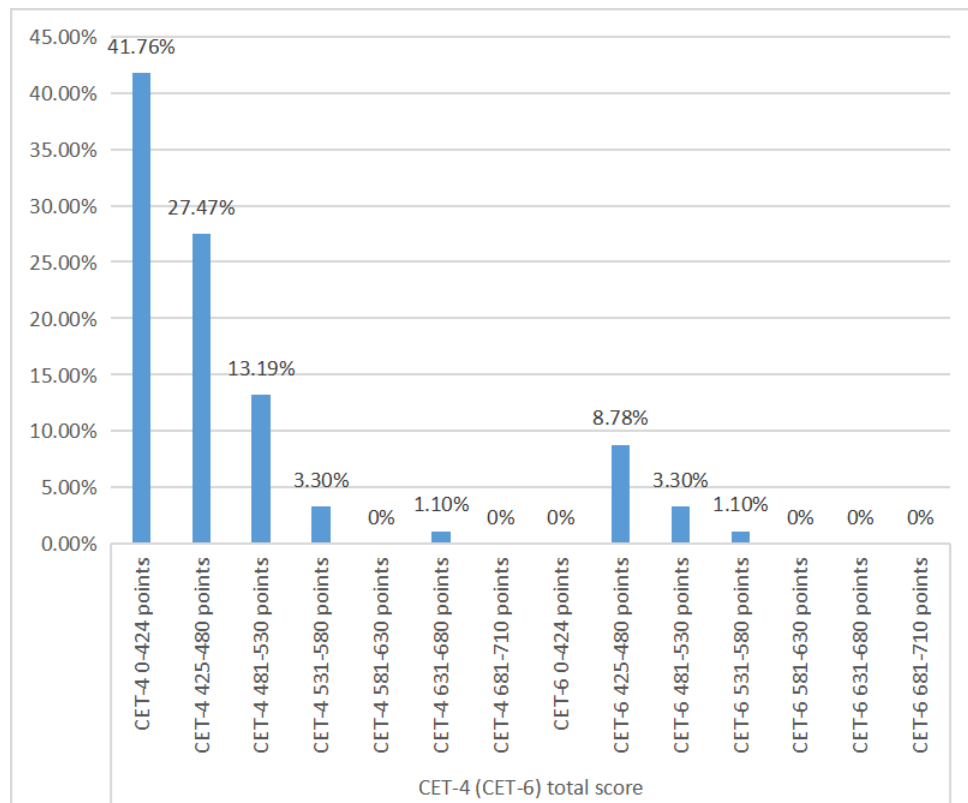


Figure 2: Frequency analysis results of CET-4 (CET-6) total scores.

Correlation analysis is used to study the correlation between “CET-4 (or CET-6) total score” and “CET-4 (CET-6) writing and translation score”, and the strength of the correlation is indicated by the Pearson correlation coefficient, the results are shown in table 1. The specific analysis reveals that:

The correlation coefficient between “CET-4 (CET-6) total score” and “CET-4 (CET-6) writing and translation score” is 0.857, showing a significant positive correlation ( $p < 0.01$ ) at the level of 0.01. In other words, writing and translation score are the main factors affecting the total score of CET-4 and CET-6.

Table 1: Correlation coefficient between CET-4 (CET-6) writing and translation scores and CET-4 (CET-6) total scores.

	CET-4 (CET-6) total score
CET-4 (CET-6) writing and translation scores	0.857**

\*\*  $p < 0.01$

### 3.2. Analysis on the Frequency and Correlation of the Behavior and Thinking Mode That May Lead to Negative Transfer of L1 in Translation

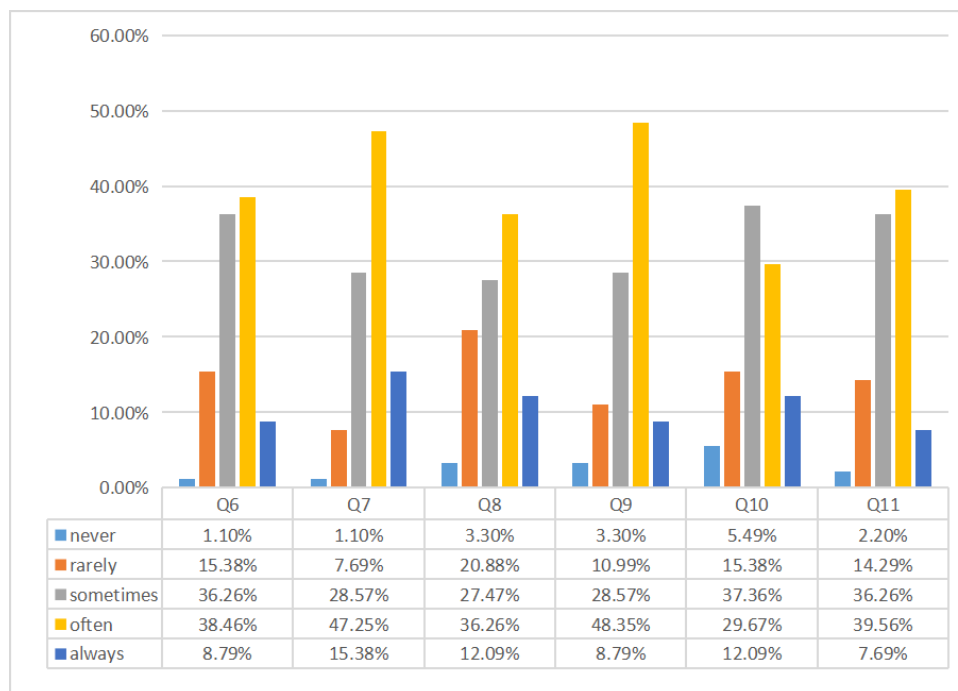


Figure 3: Analysis on the frequency of behavior and thinking mode that may lead to negative transfer of L1 in translation.

It can be seen from the figure 3 above that more than half of the subjects often have the following negative transfer of their mother tongue, which reveals that the negative transfer of their mother tongue has a significant impact on Chinese students’ translation. According to Q6, Q8, Q9 and Q10, more than half of the subjects used single words and sentence patterns when translating from Chinese to English; 57.14% of the subjects were used to adding modified adjectives before the head word, which was more in line with the expression habits of Chinese; 41.76% of the subjects often made grammatical errors due to the influence of Chinese.

According to Q7, 62.63% of the subjects always translate word for word in Chinese to English (C-E) translation and are not good at using the change of thinking and expression habits between English and Chinese, so they cannot produce native English.

From Q11, it can be seen that only 7.69% of the subjects often use conjunctions between sentences, which may lead to students' inability to produce a translation that conforms to the characteristics of English "Hypotaxis".

Table 2: Correlation coefficient between CET-4 (CET-6) writing and translation scores, CET-4 (CET-6) total scores and Q6, Q7, Q8, Q9, Q10, Q11.

	CET-4 (CET-6) writing and translation scores	CET-4 (CET-6) total score
Q6	-0.234*	-0.231*
Q7	-0.214*	-0.273**
Q8	-0.250*	-0.201
Q9	-0.057	0.029
Q10	-0.243*	-0.243*
Q11	0.093	0.159

\* p<0.05, \*\* p<0.01

Table 2 above indicates that there is a significant negative correlation between CET-4 (CET-6) writing and translation scores and Q6, Q7, Q8, Q10, but not Q9, Q11. It shows that the more single and simpler the vocabulary and sentence patterns used by students in C-E translation, the more literal the translation, the more grammatical errors, the lower the score of writing and translation in CET-4 and CET-6. But whether adjective is added before the head word or whether there are use of conjunctions has little to do with the writing and translation performance.

The relationship between Q6, Q7, Q9, Q10, Q11 and the "total score of CET-4 (CET-6)" is the same as that between them and "CET-4 (CET-6) writing and translation scores". The only difference is that there is a significant negative correlation between Q8 and "CET-4 (CET-6) writing and translation scores", but no significant correlation between Q8 and the "total score of CET-4 (CET-6)". In other words, the use of simple sentences or complex sentences has no significant effect on the total score of CET-4 or CET-6.

### 3.3. Analysis on the Accuracy and Correlation of the Choice of Translation Examples

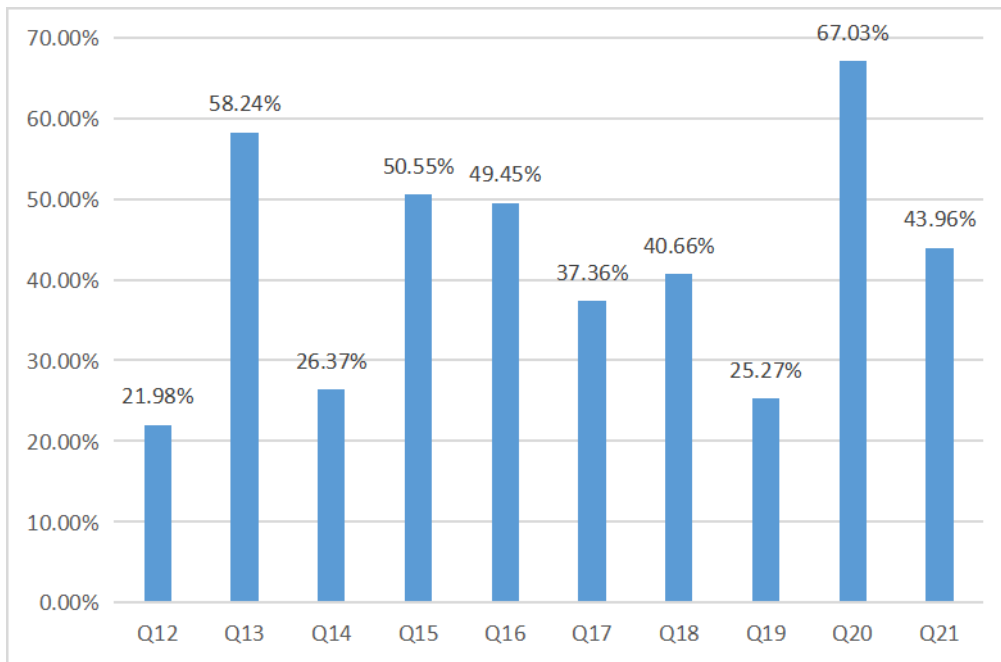


Figure 4: The accuracy of the choice of translation examples.

As shown in figure 4 above, according to the B (native English version) translation in Pinkam’s *The Translator’s Guide to Chinglish*, the author made statistics on the accuracy rate of translation examples in the third part of the questionnaire, and found that the accuracy rates of Q13 and Q20 were relatively high at 58.24% and 67.03% respectively. However, the accuracy of Q12 and Q19 is low, only 21.98% and 25.27%. Q12 and Q19 respectively investigate the translation of category words, the place of phrases and clauses, indicating that the subjects generally have a poor grasp of the translation methods of these two parts.

Table 3: Correlation coefficient between average accuracy and writing and translation scores, total scores of CET-4 (CET-6).

	CET-4 (CET-6) writing and translation scores	CET-4 (CET-6) total score
Average accuracy	0.544**	0.569**

\*\* p<0.01

Table 3 above indicates that CET-4 (CET-6) writing and translation grades, the total grades of CET-4 (CET-6) and the average accuracy rate are highly correlated. Thus, the author infer that the better the students can cope with the negative transfer of L1 in translation, the better they can perform while translating.

## 4. Discussion

According to the statistical analysis of the relationship between 91 Chinese Non-English Majors students’ identification of negative transfer of their L1 in translation and their CET-4 or CET-6 scores, this study draws the following conclusions:

#### **4.1. The Relation Between the CET-4 (CET-6) Writing and Translation Score and the CET-4 (CET-6) Total Score**

CET-4 and CET-6 is a national test. Nowadays, many enterprises and universities also consider whether to pass the test as a condition for college students' employment or graduation. There are four parts in the test: listening, reading comprehension, writing and translation. Writing and translation together account for 30% of the total score of CET-4 or CET-6, which is of considerable importance. In this study, the author also found that there was a significant positive correlation between writing and translation grades and the total grades of CET-4 (CET-6). It can be seen that students' writing and translation ability directly affect whether they can pass CET-4 (CET-6) or not, and then affect their graduation and employment. Therefore, colleges and universities should strengthen the cultivation of College Students' English ability, pay more attention to the improvement of students' translation ability, in order to help more students pass CET-4 and CET-6.

#### **4.2. The Relation Between the Behavior and Thinking Mode and CET-4 (CET-6) Total Score**

Due to the great differences between English and Chinese, and the inevitable impact of the mother tongue on the second language learners, they might maintain some thinking habits and expressions of the mother tongue which will make the output language not native enough, and even make some mistakes. This study proves that the excessive occurrence of the above behaviors and thinking patterns that lead to the negative transfer of L1 will directly affect students' CET-4 and CET-6 scores. In view of this phenomenon, college English teachers are suggested to introduce the concept of negative transfer of mother tongue and "Chinglish" to students in teaching, especially for the non-English major students, and teach them how to distinguish this phenomenon, avoid thinking and acting with mother tongue mode of thinking in second language production, and how to modify and polish the language they produce, so as to produce a language more like that expressed by native second language speakers.

#### **4.3. The Relation Between the CET-4 (CET-6) Total Score and the Identification of Negative Transfer of L1 in Translation**

Through this study, it is found that the accuracy rate of Chinese Non-English Majors' choice of translation that is not affected by the negative transfer of L1 is generally low, the highest is only 67.03%. This shows that students cannot avoid the influence of negative transfer of their mother tongue when they produce a second language, and even cannot recognize "Chinglish", let alone modify it. At the same time, this study shows that the identification of negative transfer of mother tongue is significantly positively correlated with CET-4 (CET-6) score. Similarly, it can be inferred that this will also affect students' other English test scores. In this regard, especially in translation, the translated works are intended for second language readers. The language expression should be easy for foreign readers to understand and conform to the language expression habits of them. Therefore, when learning a second language, students should pay more attention to the differences between their second language expression and the native speakers', and analyze the differences between the two languages in terms of expression, thinking habits, syntax, vocabulary and so on, so as to improve their second language ability and translation ability.

### **5. Conclusion**

Based on the statistics of 91 Chinese Non-English Majors' CET-4 and CET-6 scores, the study found that the more students' behavior and thinking mode that may lead to negative transfer of L1 in



translation, the lower their scores, The clearer the students' identification of the negative transfer of mother tongue in translation, the higher their scores. From this, the author infers that the frequency of students' behavior and thinking mode that will lead to negative transfer of L1 in translation and identification of the negative transfer of mother tongue in translation have a great impact on their CET-4 and CET-6 scores, translation ability and second language ability. Therefore, students and teachers should strengthen the identification of negative transfer of L1, so as to produce more native translation.

Secondly, the sample of this study is relatively small, and the number of translation examples is also relatively limited. It is hoped that the follow-up related research can expand the sample size and make a more detailed classification and investigation on the impact of negative transfer of mother tongue in translation. On the other hand, the follow-up research can investigate whether the negative transfer of L1 occurs in the translations produced by translation major students, and what is its type and frequency.

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