A Study on the Influence of Native Language Transfer on College Students' English Writing

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Abstract. In recent years, English writing has gradually become a difficult problem for Chinese college students. In order to study the relationship between language transfer and college students' English writing level, and to explore more effective and convenient solutions, the authors adopted the method of questionnaire survey to analyze the difficulties of college students' English writing from the lexical, syntactic and discourse levels. After statistical analysis of questionnaire data, it is found that mother tongue (MT) has a strong negative transfer effect on students' English composition. On the basis of language transfer theory, error analysis theory and contrastive analysis theory, the data can draw a conclusion that language differences, MT orientation and teaching methods are the main causes for the great influence of negative MT transfer on English writing. It is worth mentioning that improving reading amount, increasing courses related to language differences and perfecting writing methods can solve these problems to a certain extent.

Keywords: Native Language Transfer, English Writing, College Students, Negative Transfer.

1. Introduction

In the study of second language acquisition, mother tongue (MT) transfer has always been a very important research topic. Numerous investigations have discovered that there is some degree of interference from the MT when learning the target language and this interference phenomenon is very common in English writing. This problem is known as language transfer, and it serves as a barrier to acquiring and applying a second language effectively [1]. Second language learning is based on the learner's MT. Usually, because of the similarities and differences between languages, native language habits will have one or another influence on people’s second language acquisition in terms of pronunciation, vocabulary, grammar and so on [2]. Also, the impact of MT on learning a second language can run through psychological, social, and communicative. More specifically, traditional cultural values and educational methods can heavily influence the words and thinking patterns of Chinese students when writing.

On top of that, the domestic research on this aspect started late, and the research mainly focuses on the explanation and description of MT transfer itself, rather than its connection with other second language acquisition topics. In particular, there is less research on the relationship between English writing and native language transfer in China. Therefore, this paper investigated the influence of MT transfer on college students, and discussed the results with making effective suggestions.

Although Chinese college students have been learning English for many years, there are still problems with grammar, sentence structure and discourse use in English writing. College English is also very important for college students, and most majors will include English scores in their graduation requirements. It is apparent that English writing is a large part of English learning. Studying the influence of MT transfer on English writing can help college students better grasp English knowledge and flexible use in future life and work scenarios.

This paper's goal is to investigate and analyze the influence of MT transfer on the English writing of college students based on language transfer theory, error analysis theory and comparative analysis theory, find out the difficulties and root causes of errors in college students' English writing, and then
explore countermeasures to improve college students' English writing level according to the survey results. The purpose of doing so is to have a meaningful discussion on college students' English writing teaching and English writing.

2. Literature Review

2.1. Language Transfer Theory

Language transfer theory emerged in the 1940s to 1960s in the discussion of American linguists. These scholars believed that the native language could have the greatest impact on second language acquisition. According to Robert Lado’s proposal in Linguistics Across Cultures, the primary motivation for learning a target language is the distinction between the target language and one's native tongue [3]. According to Odilin's argument in Language Transfer: Cross-linguistic Influence in Language Learning, transfer results from similarities or differences between the language of instruction and any other language that may or may not be fully learned [4]. Selinker divided language transfer into three types: positive transfer, neutral transfer, and negative transfer [5]. When a student acquires a second language, positive transfer indicates that the MT will aid in the acquisition of the new language; neutral transfer indicates that the MT will not influence the acquisition of a second language; positive transfer means that when a learner learns a second language, the MT will aid in the acquisition of the second language; neutral transfer refers to the MT will not have any impact on the learning of another language; negative transfer occurs when learning a second language is hampered by the MT’s grammatical structure or usage patterns, leading to mistakes or improper language forms [6]. Because it is challenging to distinguish the MT's contribution from other elements that influence the development of a foreign language, Ellis said that a theory of transfer is likely to be a general theory of foreign language acquisition [4].

In summary, learners' native language is tightly linked to the second language acquisition, and the native language transfer affects learners' English learning to a certain extent. The theoretical foundation for researching how native language transfer affects college students' English writing is provided by language transfer theory.

2.2. Error Analysis Theory

The publication of Corder's The Significance of Learner's Errors is a sign of the formation of the error analysis theory [6]. Corder argued that it is inevitable for everyone to make mistakes in the learning process, errors can effectively show the learning process of learners, can provide a lot of information for learners' learning, and teachers should learn how to effectively use learners' errors [7].

There are many theories about linguistic errors. Errors were divides into pre-systematic errors, systematic errors and post-systematic errors according to Corder [8]. James pointed out that errors tend to occur at the ontological, textual, and discourse, including errors of spelling and writing, vocabulary and grammar, coherence and pragmatics [9]. Based on the linguistic factors generated by errors, errors were divided into interlingual errors and intralingual errors by Benjamin Whorf [10]. By analyzing and comparing the classification of errors by different researchers, this study divides writing errors into lexical errors, grammatical errors and discourse errors based on James's error classification method, and explores the sources of learners' writing errors and finds out the causes of their mistakes, so as to improve the teaching of college English writing.

2.3. Contrastive Analysis Theory

The concept of contrastive analysis was first coined by Robert Lado, who proposed that cross-linguistic contrastive analysis could be used to predict the difficulties that second language learners would face [2]. In Linguistics Across Cultures: Applied Linguistics for Language Teacher, Lado argued that compared the discrepancy between languages and cultures of different countries systematically, the learning patterns that causes learning problems can be predicted and described [3].
Richards alleged that contrastive analysis is based on the comparison of bilingual language systems, such as pronunciation and grammatical systems [11].

Based on this statement, this study compares the lexical system and grammar system of the source language and the target language, and then compares and analyzes the language rules and language structure of learners at the sentence level, so as to understand the difficulties that learners may encounter in the process of second language acquisition in time, and then provide targeted help to learners and improve the quality of writing teaching.

3. Research Method

3.1. Research Object

The investigation randomly selected 100 college students from seven universities in China. The selection of these seven universities is extensive, ranging from China's recognized excellent universities to ordinary colleges, from comprehensive universities, normal universities to science and technology universities. Students also come from different majors.

3.2. Questionnaire Design

The questionnaire is derived from the related research design topic of Wei Pingping's master's thesis at Yan'an University and has been modified based on it [6]. For example, the research adjusted the order of the questions, deleted some of the questions that were not consistent with the research topic, added relevant ones, and modified some of the examples in the questions.

3.3. Questionnaire Distribution

The questionnaire was distributed online for one week. A total of 102 questionnaires were received, of which 100 were valid. The research will be carried out based on these 100 valid questionnaires.

3.4. Research Hypothesis

The two research questions are "Is MT transfer positive or negative on college students' English writing?" and "What are the main aspects of the influence of MT transfer on college students' English writing?". Based on them and a large number of literature research results, the following predictions are made. MT transfer has a negative impact on college students' English writing, which is mainly reflected in three aspects: vocabulary, grammar and discourse.

4. Research Result

4.1. Reliability Analysis

The author used the software SPSS 26.0 to analyze the reliability of the questionnaire, and the specific content is shown in the Table 1.

<table>
<thead>
<tr>
<th>Table 1. Questionnaire reliability analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability Statistics</td>
</tr>
<tr>
<td>Cronbach’s Alpha</td>
</tr>
<tr>
<td>.971</td>
</tr>
</tbody>
</table>

From Table 1, the reliability value of the total volume table is 0.975, which is greater than 0.8. Based on this, the authors argued that the measurement index of the study variable has a relatively high degree of internal consistency reliability, and the data to be investigated are relatively reliable.
4.2. Validity Analysis

The authors used the software SPSSAU to prove the validity of the questionnaire, and used the KMO Test and the Bartlett’s Test of Sphericity to validate the suitability of the study data for factor analysis. The details are shown in the Table 2.

<table>
<thead>
<tr>
<th>KMO and Bartlett’s Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMO</td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
</tr>
<tr>
<td>df</td>
</tr>
<tr>
<td>P value</td>
</tr>
</tbody>
</table>

From Table 2, the KMO value is 0.887. It is greater than 0.7 and proves that the data is suitable for factor analysis. The significance of the statistical value in Bartlett’s Test of Sphericity is 0.000, which is less than 0.001, that is, the questionnaire has reached the significance level. Based on the statistics, the authors can find that the validity of the data used in this questionnaire is good and it is more suitable for factor analysis.

4.3. Data Analysis

There are 14 questions in the questionnaire, and the results of 100 questionnaires were statistically found that the vast majority of the subjects believed that they would be affected by native language transfer when writing in English. As shown in Table 3, this research counted the distribution and percentage of the 14 question options, and presented the results in a table that shows the extent to which college students’ English writing is affected by native language transfer.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Always (%)</th>
<th>Often (%)</th>
<th>Sometime (%)</th>
<th>Seldom (%)</th>
<th>Never (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>49.02</td>
<td>34.31</td>
<td>14.71</td>
<td>0</td>
<td>1.96</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>32.35</td>
<td>32.35</td>
<td>31.37</td>
<td>2.94</td>
<td>0.98</td>
<td>99.99</td>
</tr>
<tr>
<td>3</td>
<td>26.47</td>
<td>22.55</td>
<td>38.24</td>
<td>11.76</td>
<td>0.98</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>30.39</td>
<td>31.37</td>
<td>28.43</td>
<td>7.84</td>
<td>1.96</td>
<td>99.99</td>
</tr>
<tr>
<td>5</td>
<td>29.41</td>
<td>30.39</td>
<td>31.37</td>
<td>6.86</td>
<td>1.96</td>
<td>99.99</td>
</tr>
<tr>
<td>6</td>
<td>25.49</td>
<td>30.39</td>
<td>34.31</td>
<td>7.84</td>
<td>1.96</td>
<td>99.99</td>
</tr>
<tr>
<td>7</td>
<td>23.53</td>
<td>28.43</td>
<td>29.41</td>
<td>17.65</td>
<td>0.98</td>
<td>100</td>
</tr>
<tr>
<td>8</td>
<td>22.55</td>
<td>30.39</td>
<td>29.41</td>
<td>15.69</td>
<td>1.96</td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>18.63</td>
<td>12.75</td>
<td>41.18</td>
<td>23.53</td>
<td>3.92</td>
<td>100.01</td>
</tr>
<tr>
<td>10</td>
<td>14.71</td>
<td>17.65</td>
<td>41.18</td>
<td>21.57</td>
<td>4.9</td>
<td>100.01</td>
</tr>
<tr>
<td>11</td>
<td>37.25</td>
<td>36.27</td>
<td>20.59</td>
<td>3.92</td>
<td>1.96</td>
<td>99.99</td>
</tr>
<tr>
<td>12</td>
<td>35.29</td>
<td>33.33</td>
<td>21.57</td>
<td>8.82</td>
<td>0.98</td>
<td>99.99</td>
</tr>
<tr>
<td>13</td>
<td>46.08</td>
<td>35.29</td>
<td>13.73</td>
<td>3.92</td>
<td>0.98</td>
<td>100</td>
</tr>
<tr>
<td>14</td>
<td>27.45</td>
<td>38.24</td>
<td>23.53</td>
<td>9.8</td>
<td>0.98</td>
<td>100</td>
</tr>
</tbody>
</table>

From the percentage results listed in Table 3, more than half of the subjects believe that the native language transfer will have a negative effect on them in the three aspects of English writing: vocabulary, syntax and discourse, and it is not suitable to use MT strategies in the process of English writing, but in actual English writing, college students still rely on MT strategies to a high degree. From the first three options of the total results, more than half of the subjects would be affected by Chinese thinking when writing in English, and most of the influence is affected by the negative transfer of native language. From the two first options of the total result, this research has obtained some specific findings. 83.33% of the subjects use monotonous words and lack diversity in the process of English writing. 64.7% of the subjects cannot distinguish the semantic differences between different English words corresponding to the same Chinese meaning in English writing. 49.02% of the subjects lack the necessary cohesion between sentences and paragraphs when writing, and are not
proficient in the use of conjunctions. 61.76% of the subjects put adjuncts in front of the central word when writing English sentences. 59.8% of the subjects translate Chinese into English literally, regardless of whether the translation is appropriate or authentic, when they cannot think of a good English expression. 55.88% of the subjects make similar grammatical mistakes because they are not clear about whether the verb is transitive. 51.96% of the subjects mostly use short simple sentences when writing, and try to avoid complex sentences. 52.94% of the subjects always write the subordinate clause first and then write the main clause. 31.38% of the subjects rarely consider the correctness of grammar and sentence structure in the writing process. 32.36% of the subjects cannot make grammatical errors that affected by Chinese in the process of English writing. 73.52% of the subjects come up with sentences in Chinese first and then translate them into corresponding English sentences. 68.62% of the subjects will mentally translate an English sentence back into Chinese after writing it to see if they express what they want to express. 81.37% of the subjects first conceive the content to be written in Chinese and then write in English after seeing the writing topic. 65.69% of the subjects will adopt the writing format and writing style of Chinese composition in the process of English writing.

5. Discussion

5.1. Reasons for Negative Transfer Error in MT

The MT has such a serious impact on college students' English writing, which can be analyzed from the following three aspects:

Firstly, language differences exist between English and Chinese. The language families of Chinese and English are distinct. Chinese is a parallel language, that is to say, there is no change in morphology. In addition, Chinese emphasizes the parallel connection between sentences, and the frequency of conjunctions is lower than that of English. On the contrary, English is a compound language. The subject-predicate structure is the core of the sentence, while grammar is the support. In English writing, the article is composed of logical words and textual patterns in series, and long and short sentences are used alternately [12].

Secondly, students already have a complete MT system before they learn English. As can be seen from question 11 of the questionnaire, in the process of English writing, most students are used to coming up with sentences in Chinese first. Thus, it can be seen that MT orientation will affect English writing from the very beginning. The specific analysis is shown in Table 4.

<table>
<thead>
<tr>
<th>Option</th>
<th>Subtotal</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>38</td>
<td>37.25%</td>
</tr>
<tr>
<td>Usually</td>
<td>37</td>
<td>36.27%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>21</td>
<td>20.59%</td>
</tr>
<tr>
<td>Seldom</td>
<td>4</td>
<td>3.92%</td>
</tr>
</tbody>
</table>

It is apparent that college students who do not live in a pure MT environment lack sufficient target language input [13]. When students write in English, some students often lack of input a large number of English listening and reading input, and are easily affected by the usage habits of their MT, resulting in negative transfer errors of their MT.

Thirdly, educational factors are also important reasons for negative migration [12]. Many teachers neglect the teaching of English writing and fail to correct the mistakes caused by the negative transfer of mother language. During the English class, the teacher's teaching task is always very heavy, and he would ignore some of the influence of Chinese on English, resulting in students’ lack of language sense.
5.2. Solutions

Through the above analysis and research, the authors can find that MT transfer has a great impact on college students' English writing. Therefore, if teachers can make better use of the influence of MT transfer, it will bring a lot of help to students' English writing. In order to improve college students' English writing level, the authors propose the following solutions.

Firstly, teachers should strengthen students' reading ability. Many Chinese students lack a sense of language and their vocabulary is not rich enough to write good works. Krashen pointed out in the second language acquisition theory that people can't have a good output without enough input [14]. A large amount of reading can help students increase their vocabulary, enhance cultural sensitivity and strengthen discourse mode, so that their English writing skills can be enhanced by reducing the negative impact of MT transfer [12]. In the teaching design, teachers can choose appropriate reading materials as the practice and learning template for students, and they can also design exercises for students to write down their feelings after learning the reading materials. Moreover, requiring memorization of reading materials can also enhance memory and language sense.

Secondly, teachers need to help students understand the differences between English and Chinese. Many teachers only teach textbook knowledge and translate English, without allowing students to deeply understand the commonalities and differences between the two languages, so that they can not fundamentally improve their writing level. The two languages have many distinctions, such as sentence structure, discourse pattern, and thinking mode [15]. Additionally, schools should set up corresponding classes for students to understand these knowledge, so as to have a more comprehensive understanding of English thinking mode of writing and reduce the influence of MT. Teachers can also take a variety of ways to teach the classroom, from the sub-group discussion, class presentation, class debate and other aspects. During the process, students can learn from history and culture, which can not only increase the interest of the class, but also allow students to expand their perspectives and strengthen the impression of the difference. Of course, students' translation problems may occur more than once, and teachers need to be more patient in the teaching process, so that students can practice the conversion between the two languages and form a deep memory [16].

Thirdly, teachers should improve students' usual writing methods. Through the results of the questionnaire survey, the authors can see that many students who are influenced by their MT thinking already have a fixed way of thinking about writing. This kind of thinking mood is also one of the keys that hinder their English writing. To solve it, teachers can use error analysis method to study the problems of students in English learning, and find out the corresponding solutions through the classification and analysis of the collected errors [16]. Corresponding measures should be taken to improve students' writing methods in terms of vocabulary, sentences and passages, such as setting up vocabulary memorization groups and setting up different contexts to train authentic writing methods.

6. Conclusion

In general, based on the limited research on the relationship between college students' English writing and native language transfer, the authors adopted the method of questionnaire to conduct an empirical study. After the analysis of the results, it is found that Chinese college students are widely affected by the large-scale negative transfer of MT in vocabulary, syntax and discourse in the process of English writing, which gives rise to a lot of puzzles for their English writing. At the same time, under the guidance of language transfer theory, error analysis theory and contrastive analysis theory, the causes of this negative transfer and effective solutions are discussed. Language differences, the habitual orientation of MT and educational factors together lead to the aggravation of negative transfer, and a large number of English reading, the teaching of language differences and the improvement of writing methods are powerful countermeasures.

Unfortunately, due to the limited sample size, the results may not be absolutely generalizable. Then the corresponding cause analysis and solution measures will also appear deviation. In future studies, more samples and richer sample sources should be considered and selected. In this way, more
convincing and research-worthy results can be presented. The authors hope to conduct another study on a larger scale in the future, using more diverse methods and analytical tools. Simultaneously, it is also expected that more high-quality and effective solutions can be explored to reduce the negative impact of language transfer on college students' English composition, so that their English composition can be more natural and excellent.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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