



A Study on the Categories of Positive Transfer of Mother Tongue and Its Mechanism in English Writing of High School Students in Suzhou, Wuxi and Changzhou Area

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Abstract

In the domain of research on foreign language acquisition, the impact of one's native language on learning a second language is a critical area of inquiry pursued by numerous academics. While prior studies predominantly examine the negative transfer effects of the native language, the positive aspects of this transfer receive considerably less attention in both local and international contexts. These studies are often narrowly focused on specific linguistic subsystems like lexicon and syntax, neglecting a comprehensive analysis of the types and underlying mechanisms of positive transfer. Furthermore, writing, a vital form of language expression, plays a crucial role in language proficiency. Currently, high school students typically struggle with this skill. This research employed qualitative methodologies including in-depth interviews, observations, and the collection of materials to gather data concerning the positive influences of native language on the English writing of some high school students in Suzhou, Wuxi and Changzhou. Subsequently, data were systematically coded using grounded theory, resulting in the identification of three primary categories of positive transfer: knowledge, skills, and motivation. These categories were further analyzed through the lenses of cognitive structural transfer theory, generative transfer theory, and Maslow's hierarchy of needs theory, providing insights that could enhance the pedagogy and practice of English writing in high schools.

Subject Areas

Second Language Acquisition

Keywords

English Writing, Positive Language Transfer of Mother Tongue, Grounded Theory

1. Introduction

As international exchanges become more and more frequent, English plays an increasingly important role in our society. In order to improve their English, English learners need to develop the following five skills: listening, speaking, reading, writing and translating. Writing, as an important way of language output, is an essential part of language proficiency and it is the language skill that second language learners must master. So writing is getting more and more attention from teachers and students.

In the field of foreign language learning research, the influence of native language on target language acquisition is one of the important issues explored by many linguists and psychologists, and this influence is called the phenomenon of native language transfer [1]. The necessary exploration and application of the theory of language transfer of mother tongue can effectively promote the improvement of English teaching level and the achievement of teaching goals. Native language transfer is mainly manifested in the form of negative and positive native language transfer. Negative native language transfer refers to the interference of the native language in the acquisition of the target language, resulting in language errors and learning difficulties, while positive native language transfer means that similarities between the native language and the target language can promote foreign language learning, accelerating the passage of the intermediary language in certain developmental sequences. The study of positive transfer of mother tongue plays a significant part in both theory and practice. In theory, it helps to deepen the impact of language commonality on foreign language learning. In practise, it helps students improve the efficiency of foreign language learning by better utilizing cross-linguistic similarities [2]. Therefore, mother tongue is crucial in the process of foreign language learning and is a key element in the improvement of students' English core literacy.

Many studies tend to focus only on the phenomenon of negative transfer, which, of course, is considered to be an important cause of students' errors in writing, while the role of positive transfer is rarely discussed. Positive transfer research can better utilize the similarity between languages to improve students' foreign language writing, which may be more effective than relying solely on error correction. Previous studies examining positive transfer in writing have mainly focused on individual language subsystems rather than considering positive transfer as a whole. And they did not analyze the internal mechanism of positive transfer of mother tongue, leaving gaps in our systematic and theoretical understanding.

In view of this, this study used qualitative research methods such as in-depth interviews, observation and material collection to collect data on positive transfer of mother tongue in English writing among high school students in the Suzhou, Wuxi and Changzhou region. Grounded theory is applied to code the data level by level, refining the core categories and analyzing their underlying mechanisms.

2. Literature Review

For a long time, the negative transfer of mother tongue has been one of the focuses of academic research. Negative transfer is common in the process of foreign language learning, and researchers can carry out relevant studies by collecting sample data from the research subjects, while the study of positive transfer is more difficult, and the relevant studies cannot generalize the specific categories from a large number of sample data due to various constraints. Guo [3] suggests that mother tongue should not be regarded as an obstacle in the process of foreign language learning. Therefore, there is an urgent need for research on positive mother-tongue transfer and corresponding foreign language teaching practices, and some researchers are now focusing on the field of positive mother-tongue transfer. Research on native language positive transfer focuses mainly on linguistic subsystems.

2.1. Foreign Research

In the field of lexical positive transfer, Dam *et al.* [4] conducted a study on the use of interlanguage similarity to promote students' language learning, and found that native Spanish-speaking students are more efficient in learning cognates in Spanish and English, and that interlanguage similarity contributes to students' transfer of learning. Schwieter and Festman [5] highlight the role of cognates—words in two languages that share similar semantic and phonological attributes—which generally facilitate quicker processing compared to non-cognates. Moreover, the research also explores how lexical transfer can vary depending on the bilingual's proficiency and task demands, suggesting that higher proficiency in a second language enhances the ability to manage cross-language interactions. This body of work contributes significantly to our understanding of bilingual cognition and offers insights into the pedagogical implications of multilingual education.

In the field of syntactic positive transfer, Hawkins [6] argues that foreign language acquisition ability is affected by the degree of similarity between the native language and that language in terms of lexical features. Carrasco-Ortiz *et al.* [7] conducted a study on French learners whose native language is Spanish and found that when French and Spanish agree on the rules of partial morphosyntax, the learning efficiency of the learners increases.

In the field of positive transfer of skill, In the study by Bacon [8], it was observed that male students predominantly employed translation strategies, which are a common native language strategy, while female students more frequently utilized monitoring strategies. Lay [9] investigated the writing processes of four foreign language learners with Chinese as their native language through think-aloud protocols and conducted interviews to understand their writing background and attitudes. She discovered that students who relied heavily on native language thinking exhibited significant advantages in terms of content, structure, and detail in their compositions. Cumming [10] analyzed the English writing processes of six

adult learners with French as their native language and found that those with higher levels of English proficiency demonstrated stronger dependencies on their native language than those with lower proficiency levels. Learners with lower proficiency generated content in French, whereas those with higher proficiency used French not only to generate content and check style but also to select English vocabulary. Kobayashi and Rinnert [11] compared Japanese university students who wrote essays directly in English with those who used translation as a writing strategy. The findings revealed that students with lower English proficiency levels benefited more from translation strategies than those with higher proficiency levels. Moreover, 55% of the higher proficiency students and 87% of the lower proficiency students spent more than half of their writing time thinking in Japanese during direct English composition. These studies collectively highlight that native language strategies facilitate foreign language writing by providing cognitive and structural support, enhancing the ability to generate more coherent and contextually appropriate content in a foreign language.

2.2. Domestic Research

In the field of lexical positive transfer, Li Yaying [12] analyzes the positive transfer phenomenon of Chinese in English vocabulary acquisition based on the migration theory from the English-Chinese lexical constructions, the English-Chinese verb lexicalization patterns and the English-Chinese lexical meaning commonalities, and concludes that the lexical similarities between Chinese and English help English learning, and the study provides theoretical basis and methodological support for vocabulary teaching.

In the field of syntactic positive transfer, Liao Mingxia [13] also conducted a similar study, analyzing positive lexical transfer from three aspects: sentence components, basic sentence types and inverted sentences, and arguing that although the grammatical differences between English and Chinese are greater than the commonalities, as long as the students master the commonalities, the students' cognitive abilities in Chinese can be effectively transferred to their cognitive abilities in English, so that they can build up a rational understanding of the basic rules of the English language.

In the field of positive transfer of skill, Research on the influence of the native language in writing is relatively sparse within domestic scholarship. Guo Chunjie and Liu Fang [14] conducted a think-aloud study involving twelve students of varying English proficiency levels engaged in picture-based writing tasks. They identified three primary roles of the native language in the foreign language output process: 1) facilitating logical reasoning of content; 2) aiding in the analytical judgment of linguistic forms; and 3) retrieving relevant foreign language vocabulary, phrases, or sentences. Wen Qiufang and Guo Chunjie [15] expanded upon this research, yielding the following findings: students with higher foreign language writing abilities demonstrated less dependency on their native language compared to those with lower abilities. The roles of the native

language in the process of foreign language picture composition were categorized as follows: intermediary for translation, intermediary for content generation, intermediary for form retrieval, intermediary for content verification, and intermediary for procedural management. These studies underscore the multifaceted functions of the native language in enhancing foreign language writing by serving as a cognitive and procedural aid across various stages of the writing process.

Domestic and international research on positive native language transfer focuses only on transfer within a single language subsystem, such as lexis, syntax and phonology, and lacks a holistic study of the scope of positive native language transfer. This study explores the phenomenon of comprehensive positive mother tongue transfer in high school students' English learning, adopts a qualitative research method, and codes the data collected from interviews, observations, and physical collections step by step through the grounded theory to obtain the scope of positive mother tongue transfer and analyze its internal mechanism, so as to help students' English learning.

3. Theoretical Basis

3.1. Language Transfer

In the field of applied linguistics, researchers often adopt divergent perspectives, leading to varied interpretations of the same terminologies. One such term is "transfer." According to D.P. Ausubel's theory of cognitive structure transfer [16], transfer is conceptualized as a cognitive activity that epitomizes an individual's proactive mental processing.

Odlin [17] defines transfer as the influence arising from the similarities and differences between any previously acquired language (which may be inaccurately acquired) and the target language. In his definition, the primarily acquired language typically refers to the native language. Transfer prompted by the similarities between the native and target languages is termed "positive transfer," whereas "negative transfer" occurs when learners inappropriately apply their native language knowledge to the target language.

Faerch and Kasper [18] describe language transfer as a psychological process in which second language learners activate their native language knowledge to develop or utilize an interlanguage. Consequently, the closer the interlanguage aligns with the target language, the less negative transfer from the native language occurs, enhancing the learner's proficiency in the foreign language. The learning process of a foreign language involves progressively moving towards the target language, overcoming various forms of transfer as knowledge of the target language expands, ultimately achieving the learning objectives. Negative transfer permeates the interlanguage system at different stages, with each stage characterized by distinct types of negative transfer.

Rod Ellis [19] views language transfer as the process whereby learners apply their mastered native language knowledge in foreign language learning. This can

manifest as positive or negative transfer. Positive transfer occurs when there is a commonality between the learner's native language knowledge and the foreign language being learned, whereas negative transfer arises in the absence of such commonalities.

3.2. Grounded Theory

In the domain of qualitative research, Grounded Theory, developed by Glaser and Strauss [20], is a prominent methodology. Grounded Theory is an inductive approach aimed at generating theory from empirical data [21]. Unlike traditional research methodologies that begin with a theoretical hypothesis, Grounded Theory starts with direct observations, deriving empirical generalizations from raw data, which then form the basis for theory construction. This bottom-up approach focuses on identifying core concepts that reflect social phenomena through systematic data collection, subsequently constructing related social theories through the interrelations among these concepts. Crucially, while empirical evidence supports Grounded Theory, its distinctiveness lies not in its empirical nature but in its capacity to abstract new concepts and ideas from empirical facts.

Philosophically, Grounded Theory is rooted in a post-positivist paradigm, emphasizing the falsification of existing theories. The method originated from field observations by Glaser and Strauss during the 1960s, as they studied how medical staff dealt with terminally ill patients at a hospital. The development of Grounded Theory was influenced by two theoretical streams. From philosophy, it drew on American Pragmatism, especially the ideas of Dewey, G. Mead, and Peirce, who emphasized the significance of action, focusing on addressing problematic situations and developing methodologies through problem-solving. From sociology, it was influenced by the Chicago School, which extensively employed field observations and in-depth interviews to gather data, emphasizing understanding social interactions, processes, and changes from the perspective of the actors involved.

4. Research Design

4.1. Research Subjects

High school students in Suzhou, Wuxi and Changzhou have a higher level of English proficiency, and positive transfer of mother tongue occurs more frequently in their writing, as a result of which the first, second and third graders of high schools in this region were selected as the research subjects. The selected schools are all key high schools in the local community with reasonable levels of students. Among the 100 research subjects, there are 54 girls and 46 boys, the gender structure of the research subjects is reasonable, and according to the students' past English scores, the English proficiency of the research subjects is in the middle and upper levels of the class, so the selected research subjects are representative to a certain extent, which meets the needs of the study and can provide new perspectives for the study.

4.2. Research Methods

The study adopts a qualitative research method, which involves interviews, observations and material collection to collect data on the positive transfer of mother tongue of high school students in English writing, and adopts the grounded theory to process the data in order to construct the category. The operational norms of qualitative research were strictly adhered to in the process of sample selection, interview development, and data analysis.

4.2.1. Data Collection Methods

Interviews are an indispensable part of qualitative research. The researchers conducted in-depth interviews with the interviewees based on the interview outline and students' essays, notebooks, etc., to obtain information about positive mother tongue transfer and to record key points mentioned by the interviewees in the course of the dialogues that may help to advance the study.

The researcher observes the words of the research participants when answering questions in the English composition classroom and their performance when writing on their own after the class, etc., and records the key information from the observation that may help further the study of the categories of positive transfer of mother tongue. What's more, the researcher will follow up with an evidence-based work by briefly talking to the corresponding students about what has been recorded and determining whether or not the students' performances are due to the positive mother tongue transfer.

The researcher collects materials of the research participants, i.e., notebooks and exercise books used in English writing practice, and conducts an in-depth analysis of the students' notes so as to obtain key information about the positive transfer of mother tongue. And at the same time, the researcher will carry out interviews with the students concerned to find out whether their behavioral styles are related to the positive transfer of mother tongue.

4.2.2. Data Processing Methods

The most important aspect of grounded theory is the hierarchical coding of the data analysis, which consists of three levels of coding. At the first level of coding, the researcher puts aside personal perceptions and the stereotypes of the research community and carefully registers all the data as they appear. Secondary coding focuses on identifying and establishing relationships between conceptual categories, and distinguishing between primary and secondary categories for each set of conceptual categories once the relationships have been established. Tertiary coding refers to the selection of a core category among the conceptual categories analyzed, which is required to encompass all the findings [22]. The study analyzes and obtains the categories of positive mother tongue transfer through the above data processing methods, with a view to applying the findings to practical teaching and promoting the overall improvement of students' English core literacy.

4.3. Research Process

4.3.1. Research Sampling

This study follows the principle of “intensity sampling” and selects typical cases with high information intensity and variation. Three sampling methods were used: interview, observation and material collection, and whether the research subjects could provide new perspectives for the study was examined. Sampling ends when the viewpoints are saturated. Members of this research team went into the local high schools and selected some students for in-depth interviews. At the same time, members of the research group entered the classroom to observe the performance of high school students in English composition class and their personal habits when writing, etc., and recorded the useful information obtained from the observations in a timely manner. In addition, the research team also collected English learning materials of the students in the school, which included composition notebooks and exercise books used by the students. The sampling was initiated in June 2022 and ended in October 2022, with a total of 100 interviews conducted when the study was saturated with ideas and when there was a repetition of homogeneous ideas, resulting in a cumulative total of 63,772 words of observation notes, and the collection and acquisition of 482 English language materials.

4.3.2. Implementation of the Research

a) Training of Researchers

In order to ensure the quality and efficiency of the study, a total of five students majoring in English (Teacher Training) were selected to ensure that the researchers had a deep understanding of English learning and the ability to identify innovative ideas. Before the study was conducted, researchers were trained by experts and scholars in the fields of psychology and pedagogy to fully and systematically understand the methodology of qualitative research and the precautions before conducting the overall research.

b) Preparation of the Interview Outline

Based on the existing theoretical results and the needs of this study, the research group initially drew up the Draft Interview Outline of Positive Transfer of Mother Tongue in English Writing through five rounds of discussion and soliciting the opinions of relevant experts, and selected five samples to be pre-interviewed, and then revised the interview outline according to the actual situation of the first round of interviews. Based on this, the interviews were officially started, and when the interviews were conducted for one month, the interview team held an online meeting, mainly focusing on solving the related problems in process of conducting the research, and based on the problems raised, the interview outline was revised again, and a copy of Interview Outline of Positive Transfer of Mother Tongue in English Writing was obtained, which was used as the basis for the subsequent formal interviews. The interview outline is shown in Appendix I.

c) Implementation of the Research

For the collection of interview materials, before the interview, the interviewee was contacted through social media, and the interviewee's materials were collected in advance, such as composition notebooks and material accumulation books. The researchers systematically organized and categorized the materials. In the interview process, based on different types of materials and the actual situation of the interview, flexible and diversified interview questioning methods were used, and with the consent of the interviewees, the whole interview was recorded by voice. For the interviewee's composition notebook, the interviewer randomly selected one of the essays and asked "How did you conceptualize this essay?" "Did you encounter any difficulties in English writing and how did you solve them?" etc. At the end of the interviews, the interviewers took pictures of the materials used during the interviews and converted the interviews into text for subsequent review and analysis.

For the collection of observational data, members of the research team went into the high school classroom to observe what the students said when answering questions in the English writing classroom. And when conditions permitted, researchers would record what the students said in voice, and then converted the voice into text form. Searching for keywords such as "像中文里的" within the document can help retrieve useful information quickly. We also observed students' writing habits, such as circling the key information in the topic, drawing mind maps for conceptualization, etc., and finally formed the research findings into textual information for subsequent in-depth analysis. At the same time, we conducted evidence-seeking work, communicated with some students briefly to determine whether the reason for their behavior was positive transfer of mother tongue.

For the collection of related material, it involves the used composition exercises and composition notebooks mentioned above. The researchers conducted in-depth analysis of the obtained materials, focusing on the circled traces in the essay topics, multi-colored markings in the notebooks, etc., and turned the findings into textual information. Later the researchers followed up with evidence-seeking work, talking to the corresponding students about what they had written down, and determining whether the students' behaviors were related to the positive transfer of their mother tongue.

4.3.3. Summary

Through interviews, observations and material collection, the research team members developed 197,692 words of interview textual data at the end of data collection, 482 material data, and 63,772 words of textual data obtained through observations and material analysis.

5. Analysis of Data

First, the researchers open coded the textual data obtained from interviews, observations and physical materials, adopted line-by-line analysis to extract meaning categories from the data, restored the essence of each research subject's ideas

and views as much as possible through decoding, i.e., conceptualized the original discourse through cleavage and comparison, and carried out timely verification to determine whether the codes were able to restore the original meanings of the research subjects. Secondly, the researchers found and established the relationship between each open-ended code and obtained eight subcategories. Finally, the connections between the subcategories were analyzed, and the three main categories were summarized to ensure that all the findings were included. After coding was completed, reliability tests were conducted. First, participant and non-participant tests were conducted. Research participants were invited to test the coding of the content, to examine whether the coding could accurately restore the original meaning of the research participants, and to adjust and modify the coding that had deviations. Second, experts in psychology, pedagogy and linguistics were invited to test the scientific validity of the coding, and the coding was adjusted and modified according to the experts' opinions.

A total of 211 reference points were involved in the final compilation of the data on positive transfer of mother tongue, from which 37 relatively independent initial concepts were extracted through open coding. In the process of spindle coding, the 37 initial concepts were analyzed in terms of categories, comparing the concepts and attributes, considering the hierarchical relationships among them, and finding the major categories, namely the primary categories, and the minor categories. Based on the relevant knowledge of psychology, pedagogy and linguistics, the 37 initial conceptual categories of positive transfer of mother tongue were refined into 8 subcategories and 3 main categories of knowledge, skills and motivation, as shown in Appendix II.

5.1. Positive Transfer of Knowledge

Knowledge transfer refers to students' transfer of knowledge from Chinese learning to promote English learning, which can be refined into lexical knowledge, syntactic knowledge and cultural knowledge. Students realize the similarity of relevant knowledge in Chinese and English writing, and transfer similar knowledge points in Chinese writing to promote English writing.

5.1.1. Positive Transfer of Lexical Knowledge

Lexis is the method of word formation and its usage. Positive transfer of lexical knowledge takes the form of transferring knowledge of the internal structure of words and lexical categorization. The internal structures of Chinese characters and English words are similar. For example, the radicals in Chinese are similar to the prefixes and suffixes in English, and the radicals have a certain influence on the meaning of Chinese characters, just as the prefixes and suffixes in English words also influence the expression of the meaning of words. Besides, the categorization of words in Chinese and English is generally similar. For example, there are nouns, verbs, adjectives, pronouns, number words and other lexical categories in English and Chinese. There are also similarities in some specific lexical categories, for example, in the category of nouns, there are proper nouns and collective

nouns in both Chinese and English. And there are also some words whose part of speech are special, for example, some words can be used both as verbs and nouns.

5.1.2. Positive Transfer of Syntactic Knowledge

Syntax is the study of knowledge of sentence kinds as well as sentence structure. Positive transfer of syntactic knowledge is specifically manifested in the transfer of knowledge about the kinds and structures of sentences. Chinese and English sentences have similar kinds, for example, declarative sentences, negative sentences, special interrogative sentences, exclamatory sentences and other sentence types exist in both Chinese and English. Moreover, the similarity of sentence structure between Chinese and English also contributes to the positive transfer of native language. For example, subject-predicate structure and subject-verb-object structure exist in both Chinese and English. It is with the help of Chinese sentence features that students understand English sentences when they learn such sentences in English.

5.1.3. Positive Transfer of Cultural Knowledge

Cultural knowledge refers to both material and spiritual cultural knowledge, with material cultural knowledge being tangible things such as food, clothing and architecture, and spiritual cultural knowledge referring to intangible things such as philosophy, science and values. The specific form of positive cultural knowledge transfer is the transfer of material culture knowledge and spiritual culture knowledge. China and the West share part of the material culture, which helps students to break down the barriers arising from cultural differences and gain a certain sense of psychological belonging. For example, some English-speaking countries will drive on the right side of the road, which is quite like us. So students will not be unable to understand the meaning of the article because of the differences in material culture knowledge when reading the composition material related to transportation. Similarly, the similarity of spiritual culture also helps students learn English. For example, some Chinese and English proverbs have similar cultural connotations, and although the imagery chosen in the proverbs is different, students can still associate them with the corresponding sentences in Chinese when they write in English, which is due to the similarity of the spiritual connotations of Chinese and Western cultures.

5.2. Positive Transfer of Skills

Skill transfer refers to students' transfer of skills in Chinese learning to promote English learning, which can be specifically categorized into mental skills and operational skills. Students take advantage of the similarity of relevant skills in Chinese and English writing to promote English writing by transferring learning skills in Chinese writing.

5.2.1. Positive Transfer of Mental Skills

Mental skills are ways of cognizing in the mind through internal speech. Positive

transfer of mental skills in writing takes the form of transfer of material reading, structural organization, vocabulary application, material accumulation and so on. In the area of composition material reading, students will transfer the skills they use in reading Chinese texts to reading English texts. Students will circle or mark the key information in the text with different colored pens to remind themselves not to ignore the key information in the text when they read in Chinese, so it is believed that this skill can also help to improve the reviewing ability in English writing. In terms of organizing the structure of an essay, students will use mind mapping to organize their writing ideas, and they think this method is also applicable to English writing. In vocabulary application, students would analyze the structure of Chinese characters by circling their radicals to memorize the writing style, pronunciation or meaning of the characters. Students summarized that they had acquired such skills when learning Chinese characters, and they believed that this skill could also help them memorize the spelling, pronunciation or meaning of English words. In addition, students also memorize the writing style of Chinese characters by copying them over and over again, and they believe that transferring this style to English word learning can also help them memorize English words. When learning Chinese characters, students would put the words into specific contexts to help them understand the usage of the characters, so they thought that putting English words into specific contexts would also help them learn the usage of the words. In terms of material accumulation, students memorize a lot of model essays when writing in Chinese, and they hold the opinion that the transfer of this skill can also help improve their English writing ability.

5.2.2. Positive Transfer of Operational Skills

Operational skills are the external manifestation of mental skills, so the specific manifestation of positive transfer of operational skills in writing is also the transfer of material reading, structural sorting, vocabulary application, material accumulation and so on. We studied the physical data collected in depth and found that in the reading of compositions, there were a lot of circling marks on students' reading texts. By confirming this with students, we learned that students would make marks to remind themselves to pay special attention to a certain piece of information when they were examining questions in Chinese compositions, and that this skill could help them to improve their ability of examining questions in compositions, and therefore students would transfer this learning skill to English writing. Students also drew mind maps for some of their compositions. Students said that they usually drew mind maps to organize their thoughts before writing in Chinese, so they transferred this skill to English writing to improve their English writing skills as well. Through reading the students' essays, the researchers found that the students would circle the prefixes and suffixes of some words in vocabulary application. The research team members interviewed the students and realized that the students would circle the radicals in

Chinese learning, which is helpful in learning Chinese characters, their pronunciation, or their meanings, and therefore the students would transfer this learning skill to English learning to facilitate English word learning. This is why students transfer this learning skill to English learning to facilitate the learning of English words so as to avoid the problem of misspelling words in writing. Similarly, in vocabulary, a lot of copying was observed, and students reported that this behavior was due to the fact that they used to copy words and texts when they were learning Chinese, and they found that copying aids in memorization, which is a skill that can be transferred to any language subject. Next to some of the words, the students wrote down many sentences using the words, and we learned that the students would put the words into concrete situations to help them learn the usage of the Chinese characters, and this skill can be transferred to English to help them learn the usage of the English words. In addition to the physical collection of information, information on the positive transfer of manipulative skills to the mother tongue in writing was also obtained from a large number of observations and interviews. We observed that many students often read aloud and memorized model texts, and students indicated that this behavior was motivated by the desire to memorize good words and phrases and apply them to English writing. This skill comes from mother tongue learning, and in both English and Chinese compositions, students can memorize good words and phrases to accumulate material for their compositions and add color to their essays.

5.3. Positive Transfer of Motivation

Motivation-based transfer refers to the transfer of students' motivation in learning Chinese to promote English learning, which can be refined into internal and external motivation.

5.3.1. Positive Transfer of Internal Motivation

Internal motivation refers to students' interest in writing itself, such as their interest in language knowledge and literature, and their enjoyment of challenging their problem-solving abilities. Students' internal motivation will be transferred when they learn Chinese and English. In the interviews, students expressed that they became interested in writing when they learn Chinese, so they want to know more about writing, and because Chinese and English are the same language subject, students will be motivated to learn English composition. Similarly, when students learn Chinese, they develop an interest in literature, and since English and Chinese are both languages, they want to read more original works in English and write good essays, which creates a motivation to improve their English writing ability. In Chinese writing, students like to challenge their problem-solving ability and want to challenge their writing ability with more difficult problems, and this motivation is transferred to English writing, which is also a language subject.

5.3.2. Positive Transfer of External Motivation

External motivation refers to motivation that is stimulated by external triggers other than the learning activity, such as the expectation of getting praise, avoiding punishment, and so on. The students said that they were praised for their excellent composition grades and writing habits, so they expected to receive more praise in English, which is also a language subject. Some of the students also studied hard in English in order to avoid being punished for their unsatisfactory grades in essays and to get good grades in English.

6. Analysis of the Mechanism of Positive Transfer of Mother Tongue

In this study, three types of transfer categories, i.e., knowledge transfer, skill transfer, and motivation transfer, were obtained, and the three core categories were explained according to the cognitive structure transfer theory, generative transfer theory, and hierarchy of needs theory.

6.1. Mechanism of Positive Transfer of Knowledge

Positive knowledge transfer refers to the fact that students form corresponding cognitive structures in their minds when they learn Chinese, and then realize the similarity between Chinese and English knowledge in the process of English learning, thus searching for the cognitive structure of Chinese knowledge and transferring Chinese knowledge to English learning. Cognitive structure theory holds that all meaningful learning is generated on the basis of the original cognitive structure, and the essence of meaningful learning is the establishment of a non-arbitrary and substantial connection between the new knowledge represented by symbols and the appropriate concepts already existing in the learner's cognitive structure. When students learn new knowledge, they realize that the new knowledge has some connection with the original cognitive structure and that the original knowledge can assimilate the new knowledge, thus extracting the relevant knowledge in the original cognitive structure and facilitating the transfer between the old and new knowledge [16]. When students write in Chinese, lexical, syntactic and cultural knowledge form a relatively stable cognitive structure in their minds, and then when they write in English, students find that English and Chinese are similar in these three types of knowledge, realize the similarity between the new knowledge of English writing and the original knowledge structure of Chinese writing, and find Chinese knowledge that can be used for assimilating the knowledge of English in the cognitive structure of Chinese, and therefore, students will call on Chinese knowledge and transfer it to English writing, promoting the improvement of English writing ability.

6.2. Mechanism of Positive Transfer of Skills

Positive skill transfer refers to the fact that students are able to transfer skills from Chinese to English because of the same generative formula, i.e., the rules based on

concepts and principles, which facilitates English learning. Generative transfer theory suggests that the condition for the transfer of two skills is that they must share the same generative formula, which is the “condition-action” transfer rule, with condition referring to the specific situation and action referring to the internal mental activity and external response [23].

When writing in Chinese, students are faced with specific situations in terms of material reading, structural sorting, vocabulary application, material accumulation, etc. Students first form corresponding mental skills in their minds, i.e., they think that circling key information in the material helps in the extraction of key information in compositions; drawing mind maps helps in sorting out the ideas of writing composition; It is believed that understanding the structure of Chinese characters and repeated copying help to memorize words, and putting words into specific contexts helps to master the usage of words; it is believed that reading aloud and reciting a large number of excellent model essays help to accumulate material for composing essays; and finally, after repeated practice, mental skills are transformed into outwardly visible behavioral actions, i.e., the operational skills of circling and drawing, mind mapping, copying, reading aloud, and reciting, and so on. Since both English and Chinese are language subjects, under the rule of “condition-action” transfer, once students encounter similar learning conditions in English learning, such as reading materials, structural organization, vocabulary application and material accumulation, they will firstly form the mental skills similar to those in Chinese writing, and eventually transform the mental skills into the operational skills similar to those in Chinese writing. Eventually, the mental skills are transformed into operational skills similar to those in Chinese, thus realizing the positive transfer of mental skills and operational skills in Chinese learning to English learning.

6.3. Mechanism of Positive Transfer of Motivation

Positive transfer of motivation refers to students’ intrinsic and extrinsic needs to grow their linguistic and literary knowledge, improve their language learning ability, gain appreciation and avoid punishment in Chinese writing, because both Chinese and English are language subjects, so students develop a need to gain a deeper understanding of English learning after learning Chinese. Hierarchy of Needs Theory holds that all human behaviors are meaningful and have their own particular goals, which are derived from needs. Once people develop a certain need, they will be unsatisfied with the status quo, and thus corresponding motivation emerges to push for the fulfillment of that need [24]. When students learn Chinese, they develop an interest in language and literature, and develop a need to learn more about the language and to read more Chinese and Western literature, and a desire to write excellent essays; when students write in Chinese, they like to think about and analyze more difficult essay topics to challenge their writing ability, and develop a need to challenge their ability with more difficult questions. As both Chinese and English are language subjects, students extend the in-

terest and need to challenge their abilities in Chinese writing to English writing, and the transfer of intrinsic motivation in English writing occurs as a result. The students received praise in Chinese writing for their excellent essay writing performance and study habits, and aspired to receive more appreciation in more language subjects. Since Chinese and English are both language subjects, the appreciation they might receive in English writing became their learning needs, and in order to satisfy this need, the students made efforts to improve their own writing, and the extrinsic motivation in Chinese writing migrated to English writing at this time. Students also have the need to avoid being punished for their unsatisfactory performance in writing, in which case a similar transfer of external motivation occurs in Chinese learning.

7. Conclusions

In this study, the data obtained were first coded level by level through the grounded theory, resulting in 37 specific categories, which were categorized into 8 subcategories and 3 main categories. Based on the relevant knowledge of psychology, pedagogy, and linguistics, the categories of positive transfer of mother tongue were named as the following three aspects: knowledge, skills, and motivation. The positive transfer of knowledge is further refined into 3 subcategories: lexical, syntactic and cultural; the positive transfer of skills can be divided into 2 subcategories of mental skills and operational skills; the positive transfer of motivation can be divided into 2 subcategories of internal and external motivation. Cognitive structure transfer theory, generative transfer theory and hierarchy of needs theory are used to explain the internal mechanism of positive transfer of the three main categories, in order to help students improve their English core literacy through theoretical guidance of relevant practical teaching activities.

However, this research has certain limitations. To begin with, the number of research subjects is only 100, which calls for further expansion in order to get more convincing and accurate results. In addition, the interview outline needs to be polished so that more key points can be gained through in-depth interview. Moreover, attention should be paid to the analysis of the mechanism of positive language transfer, which plays a significant role in the whole research. Last but not least, analysis of the research data is not the final goal. The most important thing is to put what we have got into real practise, enhancing students' English writing ability in an effective way.

Conflicts of Interest

The author declares no conflicts of interest.

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