The Acquisition and Application of Prepositions by Chinese Middle School Students——Taking IN, ON, and AT as Examples

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Abstract. This paper attempts to put forward pedagogical suggestions for Chinese middle school English teachers to improve their efficiency of preposition teaching by analyzing the errors made by Chinese English learners. Because of the complex semantics network of all prepositions, this paper will take only three prepositions IN, ON, and AT as examples to make a deeper analysis in this field.

1. Introduction

Prepositions are singular words or groups of words that can indicate spatial or temporal relationships between entities. Based on Mindt and Weber’s research on Brown Corpus, there are more than 150 prepositions in English, and only a small part of them are frequently used(Mindt[1], 2007). Prepositions are few in number, but their sense are abundant. It is the most polysemous words in all languages(Taylor[2], 2003). In other words, although English prepositions have a limited number and simple forms, they can express rich meanings on their own or collocate with different words like adverbs, nouns, and verbs, which is difficult for English learners to understand and acquire.

Due to the difficulties in acquiring and applying prepositions for English learners, prepositions teaching plays an important role in the process of English learning. However, most English teachers from mainland China are using the traditional teaching method. In the classroom, the teachers just show some semantics and examples of prepositions, and students only need to learn by rote. According to Englund, there are many explorations and applications of preposition teaching based on cognitive linguistics and social-cultural theory overseas(Englund[3], 2015), which is lacking in the context of middle school in China.

2. Prepositional Errors Made by Learners

Ren constructed a small corpus with 300 middle school students’ compositions in the Chinese Mainland. Through analysis of data, he found that the two most common types of prepositional errors made by students are: (1) substitution and (2) absence (Ren[4], 2019). Due to the same type of research subjects as Ren’s research, this paper will cite the two types of errors for further discussion.

The occurrence of substitution is to some extent caused by learners’ lack of understanding of the intrinsic meaning of prepositions. Take IN, ON, and AT as examples, in terms of spatial relationships, IN refers to being within a space, representing the largest range; while ON refers to being in contact with an entity on a plane(Cresswell[5], 1978), indicating a more specific range. The intrinsic meaning of AT refers to being located on a point(Lindstromberg[6], 1996), which means the smallest and most accurate range. In terms of temporal relationship, IN refers to a long period of time, such as a year or a month. ON is used to describe a more specific time, while AT is a smaller, more specific point than ON in time, such as at five o’clock.

The errors of absence can be explained by learners’ unfamiliarity with collocations of words. The field of collocations has to do with meaning relation between lexical items(Shitu[7], 2015). There is a “natural order” in language, which means words are arranged or related to each other in a specific order in sentences. When a word appears in a specific context, the related words will automatically come to mind. Therefore, if students are unfamiliar with the collocations, prepositions will not be related, resulting in absence.

3. Theoretical Issues

According to Richards, the error types include interlingual and intralingual errors(Richards[8], 2015). The errors caused by negative transfer of the first language are interlingual errors, while those caused by overgeneralization and confusion of similar expressions are intralingual errors.

3.1. Interference of Mother Tongue

As Long points out, mother tongue interference is the result of using elements of the first language while using the target language(Larsen-Freeman & Long[9], 2014).
When Chinese students write compositions, they tend to think in Chinese first and then translate them into English word for word (Ma[10], 2020). They tend to make mistakes in writing when some features of their mother tongue are different from English. In prepositions, IN, ON, and AT are three of the top high-frequency prepositions used by Chinese students (Yuan[11], 2014), but it’s difficult for them to distinguish these prepositions. Since there are fewer prepositions in Chinese than in English, the three prepositions often correspond to one Chinese equivalent with no obvious difference, which is likely to lead to mistakes. For instance, the reason for the wrong sentence “But in Monday, he will have an exam” is not only the students’ lack of understanding of intrinsic meaning as we mentioned above, but also the influence of Chinese. IN, ON, and AT all can be translated into “ZAI” in Chinese in this context, which makes them feel confused about selecting one to use. Another example is “The teachers should focus students’ mental health (Lu[12], 2016)”, the preposition ON is omitted with the interference of the mother tongue. In Chinese, nothing is needed to put before ‘students’ mental health.

In addition to the translation and correspondence between languages, different cognitive perspectives also contribute to the misuse of prepositions. The wrong phrase “in campus” is very common in Chinese students’ English writing, which can be considered as the result caused by different visual perspectives between Chinese English learners and English native speakers. There are walls and doors in the Chinese campus as boundaries to determine a range, while the foreign campus doesn’t have boundaries and is regarded as a plane. Chinese English learners tend to use IN to represent they are within a campus, while English native speakers use ON to indicate being in contact with the surface of the campus.

3.2. Overgeneralization

Overgeneralization is another cause of prepositional errors. Richards believes that overgeneralization is a learning strategy which learners extend some grammar rules or collocations they are familiar with in the target language to some unfamiliar grammatical fields incorrectly (Richards[13], 1971). Due to the limited exposure of Chinese students to English, they are unable to obtain abundant and complex grammar rules from real communication scenarios. They tend to use the old grammatical experience to infer the new ones, without considering exceptions and restrictions (Shi[14], 2006). For example, in the classroom, teachers are likely to provide students with templates like “My view on this topic is ….” to help them express their opinions. Under such exercise, students tend to infer a grammar rule that words express ideas should be collocated with ON. Therefore, they produce wrong sentences like “On my point of view, it’s important to form a good living habit (Ren[4], 2019)”. In the sentence, the student overgeneralizes the usage of ON to denote the expression of thoughts but underuses the new phrases such as “in my opinion”. In terms of prepositions expressing time, most students are familiar with the expressions “in the morning” and “in a year”. It’s easy for them to make an analogy that the preposition IN can be put before any word that represents the points and periods of time. Therefore, they made a mistake in the sentence “He is in holiday this week” (Lu[12], 2016).

3.3. Confusion of Similar Expressions

Although the number of prepositions is limited, the collocations and phrases made up of the prepositions are abundant. There are many prepositional phrases that have quite similar structures, but their meanings are totally different from each other. Chinese students often have difficulties in using prepositions in similar phrases. The first example is “Students arrange the books on order”. The error of substitution is caused by the student’s confusion of similar expressions. “On order” is a phrase to express a production has been ordered by someone but has not been received yet; while “in order” means a state of proper preparation or arrangement (Simpson & Weiner[15], 1989). In this context, the student wants to express that the books are well organized instead of buying something, so “on order” should be replaced by “in order”. Another phrase that appears in Chinese students’ English writing frequently is “on earth” (Ren[4], 2019). The learners use it to express the meaning of “on the earth” because in their minds, there is no difference between them. However, the phrase “on earth” is used to convey surprise, and it is often used with question words like what and where (Simpson & Weiner[15], 1989); while “on the earth” represents the position on the surface of the earth. The quite similar structure poses many challenges for Chinese English learners.

4. Pedagogical Suggestions for Preposition Teaching

Appropriate pedagogies can help students better understand and apply prepositions. In the following, teaching strategies will be proposed based on two theories, and then a concise teaching process will be presented to illustrate how to apply Image Schema Theory in real teaching scenarios and enhance the feasibility of suggestions.

4.1. Adopting the Chunk Theory in Teaching

The chunks are fixed collocations or expressions of several words grouped together. It is a prefabricated language, such as a phrase, collocation, and idiom (Granger[16], 1998). Due to the patterned structure and relatively fixed pragmatic environment of chunks, language output can become fluent with a little processing (Ellis[17], 1996), and the efficiency of preposition production can be greatly improved. Besides, the teaching of chunks can help students avoid the errors of absence effectively. Since students acquire prepositions through chunks, when a word in a chunk
appears, the associated preposition will be activated in learners’ minds simultaneously. Teachers should cultivate students’ awareness of chunks with prepositions, teach them how to recognize chunks and develop their ability to accumulate chunks in preposition teaching. In order to improve the accuracy of using prepositions, students have to realize that Chinese and English can’t be correspond and translated one-by-one. It’s quite easy to make mistakes by memorizing prepositions in isolation and translating them from Chinese to English directly.

### 4.2. Application of Image Schema

English prepositions are famous for their polysemy, they have different, but related senses(Boers & Demecheleer[18], 1998). Image schema is the cognitive mechanism for the extension of the meaning of prepositions, and can provide a connection between bodily experience and advanced cognitive fields(Hedblom et al.[19], 2015). According to Yu, the difficulty of acquiring word meanings, especially those polysemous words, will be reduced by the adaptation of image schema in second language teaching(Yu[20], 2022). Preposition teaching based on Image Schema Theory is no longer about teaching invisible abstract concepts, but images that can be seen. The simple lines and circles in image schemas are highly schematic and offer students a more concrete feeling. There are some preposition teaching methods and applications based on the Image Schema Theory overseas(Zarei et al.[21], 2016), but there is no teaching application of the theory to Chinese middle school students. The following part will explore how to apply Image Schema Theory to preposition teaching in Chinese middle schools, taking IN as an example.

By analyzing Tyler & Evans’ research on the preposition IN(Tyler & Evans[22], 2003), it can be found that the preposition IN mainly has two basic spatial image schemas (including static and dynamic) and five semantics extensions.

In the classroom, the two basic image schemas will be presented before semantics extensions. At first, the teacher shows students an image schema that represents an object within an area or a space, meaning surrounded by sth. (Simpson & Weiner[15], 1989):

![Figure 1 (Static)](image1)

According to Figure 1, the teacher can explain to the students the meaning of TR (trajectory) is an object that is located or moved, with the LM (landmark) serving as a reference for the TR, and the PATH serving as the movement route of the TR. In this image schema, both TR and LM are static, and TR is surrounded by LM. This is followed by an example sentence “Some pictures are in the box”. In the sentence, some pictures are TR and the box is LM. Pictures are inside, surrounded by the box. Then, the teacher provides students with more examples of the image schema and asks students to discuss, e.g.: (1) She lives in a big house. (2) Sam is playing football in the playground(Yuan[11], 2014). After analysis, students need to give further examples based on the sketch.

After that step is completed, the teacher follows the same steps and then introduces students to other image schema sketches for the preposition IN:

![Figure 2 (Dynamic)](image2)

Figure 2 shows that TR is gradually entering the interior of LM from the outside, and the PATH is greater than 0. From this sketch, it can be found that the preposition IN has a basic dynamic spatial semantic, which is “into sth.”(Simpson & Weiner[15], 1989). The teacher uses this image schema sketch to explain the example sentence: My father got in the car to go to work. In this sentence, my father as TR enters the car as LM.

Five semantics extensions of IN will be mentioned after studying the two basic image schemas because the extensions are all based on the two sketches. The extensions are related to the domains of direction, time, number, state, and event(Lakoff & Turner[23], 1989).

The teacher explains the extensions in the domain of number in detail with examples first. When the basic static semantics of IN is mapped to the domain of number, the inclusion relationship between LM and TR still exists. At the time, LM is a specific numerical range, and TR is the value of the number that needs to be highlighted in the range. Thus, IN can be interpreted as “show a rate or relative amount”(Simpson & Weiner[15], 1989). After explanation, some examples will be shown: (1) Two in five students in our class can swim. (2) One in three say they like the popular music. Then, students try to draw the schema of the sentences by themselves for a deeper understanding. The analysis of the remaining four semantics extensions of IN will be left as students’ homework.

With the teaching and practicing of image schemas, it is hoped that students can relate spatial prepositions with movements in a straightforward way and find out their intrinsic meanings instead of learning by rote.

### 5. Conclusion and Discussion

In conclusion, it is challenging to acquire and apply prepositions correctly for Chinese English learners. They are easy to make some mistakes, the two most frequent mistakes they make are substitution and absence.
Exploring the reason from the knowledge level, they lack understanding of the collocation and intrinsic meaning of prepositions. From a theoretical perspective, they are disturbed by their first language, overgeneralize unfamiliar grammar rules, and get confused about similar structures of expressions. In order to address these issues effectively, teachers can adjust their pedagogies based on the Chunk Theory and Image Schema theory.

Although this paper only mentioned the teaching implications of prepositions, if students want to improve the accuracy of applying prepositions, their own efforts are valuable as well. In the classroom, they can pay more attention to the prepositions; after class, input and exposure to prepositions can be increased by reading English novels or listening to English songs. Besides, English is a language and also a culture. Language learning can’t be independent of culture. But understanding culture is not only about foreign festivals but also about other aspects, especially language expression. Understanding language culture can help students better understand the roles and usages of each preposition [24], 2012, rather than corresponding English to Chinese rigidly.

References