Exploration on the Interactive Teaching Mode of Chinese as a Foreign Language Based on Transport Vocabulary Analysis

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ABSTRACT. In recent years, many academic exchanges in the field of transportation have been carried out between China and other countries. While there are many professional terms in the academic literature of China's traffic types, the blunt translation is not conducive to the exchanges between scholars. As a consequence, it is necessary to conduct interactive teaching of Chinese as a foreign language. However, there is still a lack of research on this aspect in China, traffic control model is adopted to analyze traffic vocabulary, and a set of improved interactive Chinese teaching model is established based on traffic vocabulary analysis, whose actual implementation effect is evaluated by the multi-level fuzzy comprehensive evaluation model. The evaluation results shows that the interactive Chinese-language interactive teaching model based on traffic vocabulary analysis plays a positive role in teaching effect.

KEYWORDS: Transport vocabulary; Traffic control model; Interactive teaching

1. Introduction

Nowadays, as the cooperation of the global economy is becoming more and more tight, the exchange of people using different languages is becoming more frequent around the world. Therefore, the task of teaching Chinese as a foreign language is emergingly important (Chang M M et al. 2018) [1]. Among the present industries, the transportation industry is the most special one. This is because with the development of society, transportation, as the cornerstone of the normal operation of modern society, has developed into a huge and complex system (Zhang N. 2018) [2]. In order to maintain the normal operation of the transportation system, a large number of professionals are required for joint management. In the current era of economic globalization, the transportation sector has also developed and prospered with the cooperation of professionals from different countries around the world (Liang-Yu M A. 2018) [3]. And with the development of economic globalization, more frequent exchanges and cooperation activities would be carried out through professionals in the transportation field of various countries in the future (Azuma J et al. 2018) [4]. At the same time, considering the professionalism of the transportation field, it is not enough to conduct regular teaching of Chinese as a foreign language, without a good professional vocabulary foundation, it is difficult to integrate professional literature (Huang Y T. 2018) [5]. This will undoubtedly lead to more serious communication barriers to study and communication, as well as future work cooperation. This would not give full play to professionals' professional level, and thus the level of cooperation would be reduced. Therefore, a more in-depth discussion on the interactive teaching mode of Chinese as a foreign language based on traffic vocabulary is required to be conducted, the shortcomings in the current educational work, needs to be identified, and targeted improvements needs to be proposed (Guan S H. 2018) [6]. The current interactive teaching model needs to be further improved, teaching efficiency and quality needs to improved, and the healthy development of the transportation industry needs to be ensured (Wu L J. 2018) [7].

2. State of the Art

The interactive teaching of Chinese as a foreign language is a comprehensive subject, which includes many aspects such as pronunciation, vocabulary, grammar and Chinese characters. Its teaching goal is to teach students certain language skills and communication skills, so that after completing the teaching plan, ability of having a certain level of Chinese communication skills would be obtained. In the past, the traditional teaching methods were mainly based on teachers' explanations and one-to-one interpretations of words and phrases that were not understood. The explanations from translation to grammar were very detailed, followed by a lot of exercises. In this way, more teachers are leading, students' subjective enthusiasm is not effectively played, and learning

enthusiasm is easy to extinguish. Therefore, an interactive teaching mode has emerged. Under this model, teachers are guided to focus on excavating students' own interests and allowing students to take the initiative to learn. And emphasize practicality, so that students can better understand the meaning of sentences and get to know the charm of Chinese in the actual interaction process. The interactive teaching model is in line with the theoretical theory of "appropriate acquisition", of which the main purpose is to create an external learning environment through artificial creation, so that the purpose of quasi-unconscious acquisition can be achieved by learners. The interactive teaching model for teaching Chinese as a foreign language has officially created a satisfactory language learning environment for students to learn Chinese consciously or unconsciously.

3. Methodology

3.1 Traffic Control Model

In recent years, with the continuous improvement of people's living standards, more and more citizens have purchased transportation tools. This has also led to the continuous deterioration of the city's traffic environment, making traffic congestion a common problem faced by major cities across the country. For different cities, the factors that cause traffic congestion are not the same. Therefore, it is necessary to analyze the traffic environment of the city according to the actual situation, and use the traffic control model to effectively optimize the urban traffic conditions.

The original intention of the traffic control model design was mainly to configure the city's transportation resources, relieve the city's traffic pressure, and then solve the urban traffic problems. The model was first proposed by Professor William of the Los Angeles School. Through the joint efforts and improvement of many scholars, it has been successfully applied in urban traffic control research and achieved good research results.

Due to various sub-modules of the traffic control model, the calculation process is also complicated. Therefore, in order to simplify the calculation process, the following four calculation models are proposed by the academic community: (1) traffic control model NLM calculation method; (2) traffic control model TLM calculation method; (3) traffic control model RPM calculation method; (4) Traffic control model ADM calculation method. These four different types of computational models can effectively solve the various problems encountered in the operation of traffic control models. The combined use of these models can also effectively solve some complex traffic problems, and play a positive role in studying the sensitivity, stability and dynamics of traffic circulation and reducing errors and uncertainties in the prediction system. . The traffic control model mainly includes the intimal control equation and the outer membrane control equation. Since various functions are involved the calculation process of the traffic control model, in order to ensure that the operation precision can meet the expected requirements, the ADSEN function was adopted to constrain different functions. The ADSEN function is divided into two types, one is a strong constraint type S4DVAR function, and the other is a weak constraint type W4DVAR function. The strong constraint function mainly focuses on the strong constraints on the initialization conditions of the function and the variable factors of the function to ensure that the finally obtained operation solves the requirements. The weak constraint function, on the other hand, is mainly to perturb the final result of the function along the most unstable direction of the state space. The combined use of the S4DVAR function and the W4DVAR function can effectively improve the operational precision of the traffic control model.

In summary, it is not difficult to know that the traffic control model has a very good effect on complex and variable traffic roads. Because of its many advantages, the model has been widely used in the scientific community.

3.2 Multi-Level Fuzzy Comprehensive Evaluation Model

The multi-level fuzzy comprehensive evaluation model is an evaluation model based on fuzzy mathematics. Based on the qualitative evaluation theory, fuzzy mathematics was adopted by the fuzzy mathematics comprehensive evaluation method to quantitatively evaluate various factors of things or objects and obtain comprehensive evaluation (as shown in Figure 5). The multi-level fuzzy comprehensive evaluation model has certain advantages in solving some nonlinear fuzzy problems. Clear results can be maintained in this method, therefore, it is widely used and expresses the uncertainty of things.

The result is that the judgments are no longer accurate. Therefore, the model $M(\wedge, \vee)$ can be improved in practice. To this end, the following four computational models are proposed: (1) multi-level fuzzy

comprehensive evaluation model NLM calculation method; (2) multi-level fuzzy comprehensive evaluation model TLM calculation method; (3) multi-level fuzzy comprehensive evaluation model RPM calculation method; (4) Multi-level fuzzy comprehensive evaluation model ADM calculation method.

These four different types of computational models can effectively solve the various problems encountered in the multi-level fuzzy comprehensive evaluation model in the operation process. The combined use of these models can also effectively solve some complex real-world problems.

In addition to the mentioned problems, the multi-level fuzzy comprehensive evaluation model also has the intersection of the model and many factors in the actual operation process, but the weight distribution of each factor is not balanced. At this time, these factors can be divided into several levels to analyze them. The first is to judge each factor separately, and then make a comprehensive judgment on all factors.

4. Conclusion

With the development of economic globalization, more frequent exchanges and cooperation activities will be carried out among professionals in the transportation fields of various countries in the future. At the same time, considering the professionalism of the transportation field, it is necessary for foreign scholars to conduct interactive teaching of foreign Chinese in the field of transportation in order to better promote exchanges and understanding between the two sides. However, China's research on this aspect has major deficiencies. Based on these reasons, the traffic control model is adopted to analyze the traffic vocabulary to obtain the teaching model of Chinese vocabulary in the traffic field, and SOA technology, UML technology, JavaEE technology and MySQL database are applied to construct a Chinese language that is more interactive with students. The teaching platform uses the platform to develop a set of interactive Chinese teaching model based on traffic vocabulary analysis. At the end of the paper, the multi-level fuzzy comprehensive evaluation model is used to evaluate the actual effect of the model. The evaluation results show that the interactive Chinese-language interactive teaching model based on traffic vocabulary analysis plays a positive role in teaching effect.

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