Small Private Online Course English Teaching Mode Based on Image Schema Theory of Cognitive Linguistics

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ABSTRACT

Imageschema theory is originally an important content in cognitive linguistics and Neurology. Especially in recent years, since the image schema theory has been widely recognized worldwide in the practice of traditional English language teaching, it has attracted the attention of the education scholars. Meanwhile, the deep research on it and relevant teaching practice are gradually becoming interdisciplinary. This trend indicates that image schema theory has great potential in practical application. At the same time, it provides realistic possibility for applying the image schema theory to SPOC English teaching. Especially in the current era when information technology is developing rapidly, SPOC English teaching has been favored by many educators and students and transformed into a fashionable teaching style sweeping the world. There has been a long history of language fossilization phenomenon in English teaching, which seriously affects the learner's acquisition of language. Therefore, the application of Image Schema Theory to SPOC English teaching through such four steps as pre-learning scenario design, deep cognition in learning, theoretical reflection after study and knowledge optimization in evaluation can fully release the vitality of teachers and students and form vibrant SPOC English teaching mode and the optimal design scheme for anti-language fossilization.

Key Words: Image Schema Theory, Language Fossilization, Brain Nerve, Cognitive Linguistics, SPOC, English Learning

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Introduction

In recent years, the development of information technology and the popularity of smart devices are gradually changing the way in which people acquire knowledge and carry out study. They also gave rise to the continuous evolution and renewal of a large number of new learning styles. MOOC English teaching has attracted the attention of many scholars, and on this basis, it has also spawned a more sophisticated type of class--SPOC English teaching. Since the development of SPOC teaching mode supported by behaviorism has fallen into the predicament of "language fossilization", it is urgent to figure out a new paradigm to clear up the misunderstandings in development. Seen from the macroscopic aspects, the image schema theory itself has significant characteristics of human's common cognitive law. In addition, the English teaching practice under this theory is composed of scenario design, profound cognition, theoretical reflection and assessment optimization, and has established personalized talent training mode under the background of popular style education. This kind of training mode can deepen students' understanding, transfer and application of knowledge, stimulate students' innovative thinking and cultivate their high-order

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imagination and innovation ability by the means of experience learning, reflective imagination, multiple interaction and independent inquiry, thus effectively avoiding the phenomenon of "language fossilization" in SPOC English teaching. It also suggests that the application of image schema theory in SPOC English teaching is of great theoretical significance and practical value and from the perspective of practice, it is also a kind of forward-looking thinking and practice in optimizing and innovating the teaching mode. On the micro level, the image schema theory falls into the theoretical category of the early cognitive model. It mainly studies the significant meaning in such process as category construction, concept formation, metaphor analysis, meaning understanding and reasoning. It has the function of investigating the promoting role of image schema to each link of individual's cognitive competence. SPOC (Small Private Online Course) belongs to the education methodology category (Banciu *et al*., 2012). It emphasizes that the final educational objectives can be realized in specific education environment using specific education method. It is not hard to see from the emphases of the two that the application of the image schema theory is to mobilize the initiative of participants in English teaching and learning. The theory emphasizes the play of the transcendental imagination and creativity of students and even teachers, while SPOC is merely a technical platform in the sense of medium derived from the needs of teachers and students. Therefore, in the process of English teaching using SPOC mode, as long as we can effectively play the promoting role of the image schema in mobilizing student's initiative in their language learning, new vitality will be injected into the development of education teaching technology. This kind of creative attempt can effectively promote the deep integration of cognitive theories, information technology, social media and English teaching, thus continuously improving the quality and level of English teaching.

Theoretical analysis

In the process of human cognition, image construction is the process of reflecting objective things through the stimulation of sensory nerves of the brain (Banciu, 2015). Meanwhile, the single image forms the subconscious concept of the thing according to the prior graphic construction. The neural basis of a single image is the cluster (group) of brain neurons, which is a physiological structure, a combination of effective information as well as a combination of images and images. A group of brain neuron clusters is equivalent to a set of coded messages, which corresponds (correlates) to the representation of specific sensory messages. It bears the connection of related sensory information from top to bottom. As an advanced information carrier of human cognition, it plays an irreplaceable role in the process of language generation, thinking and expression. (Wang *et al.*, 2017) See Figure 1. The article makes a detailed theoretical analysis of the combination of image schemas, language fossilization, language acquisition and SPOC in the fields of neuroscience, cognitive linguistics and education.

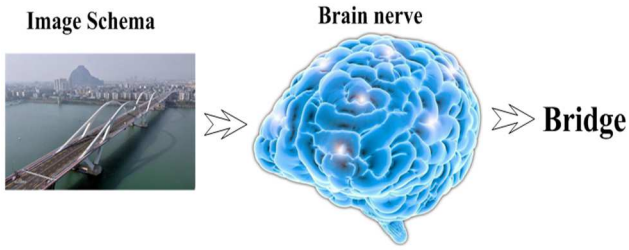

Figure 1. Image schema based on brain nerve

Image Schema

Image Schema is a very important concept in the Neurology and cognitive model theory. With very strong generality and explanatory power, this concept has been deeply concerned by multiple researchers and applied in the mental process of perceptive interaction, language behavior interpretation and English teaching (Gibbs *et al*., 1995). The image schema theory has been widely used in English reading comprehension and listening teaching. As a theory to guide specific teaching practice, it has generated remarkable teaching effect. Compared with English teaching, the image schema theory aims to correct the originally wrong or non-precise image schema. In the process of extracting, analyzing and correcting the schema stored in the brain, the image schema theory constantly revises the old image schema and produces new image schema. However, there is quite few study on the application of imageschema theory on SPOC English teaching. Therefore, it has become crucial to make exploration in the deep integration of imageschema theory and SPOC English teaching (Hsieh, 2010).

Language Fossilization

The language fossilization is the state of language learning stagnation or even regression. Currently, it has become a big challenge facing English teaching. The degree of language fossilization is different among individuals. What's more, there are limited teaching period in traditional classroom teaching. The two reasons make it difficult for traditional teaching to satisfy the needs of language fossilization revising (Gatt *et al*., 2017). In order to overcome language fossilization in English teaching, English teaching researchers have conducted in-depth study on how the mother tongue of mandarin affects English and generalized and explained the main reasons for the occurrence of language fossilization based on the cognitive rules. They held that targeted teaching and continuous reinforcement are the major solutions.

Interactive Relationship

There is a complex interrelationship between the image schema theory, language fossilization, language acquisition and SPOC (as shown in Figure 2). Language acquisition is the ultimate goal of the whole language teaching activities and language fossilization is a difficult task which has to be tackled in language acquisition. Due to the language differences in different countries, the long-term preservation and precise retrieval of English image schema is rather difficult. The image schema theory explains the language acquisition theoretically. Language is stored in the brain in the form of image schema, and it is interpreted and expressed from the underlying schema of voice and word to the high-level schemata of sentence and paragraph. SPOC is a new teaching mode of improving teaching effect in the information technology era. This paper mainly studies how to build a new model of English teaching on the SPOC teaching platform with the image schema theory as guidance, reducing and natural resistance of language fossilization as purpose, and multimedia technology and Internet technology as means.

As shown in Figure 2, the language fossilization provides material for image schema construction and SPOC teaching content based on the image schema theory. On the SPOC teaching platform (Fox2013), the image schema theory is taken as the cognitive guidance, the avoidance of language fossilization as the starting point. It is the theoretical basis for the analysis of the language fossilization degree and language acquisition. Language acquisition is the purpose of the whole SPOC teaching activity. As a new teaching mode, SPOC is drawing more and more attention from English teaching staff and is widely used by them. The research literature on using SPOC in English teaching under the guidance of image schema theory is rare in the world. If language fossilization can be effectively avoided, it will have profound research significance in the English education field. The prospective exploratory analysis of SPOC English teaching mode under the image schema theory is conducted below (Cui *et al*., 2017).

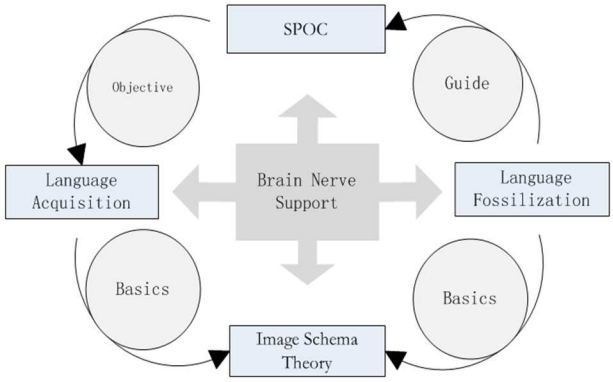

Figure 2. Relation graph of image schema theory, language fossilization, language acquisition and SPOC

Mode construction

In current SPOC English teaching, students are always in a passive, mechanical shallow learning state, that is, the concept of language is passively accepted by students as an isolated fact. This kind of simple, repeated and mechanical memory exacerbates the "language fossilization" phenomenon. At the same time, the teacher changes from the teaching subject, leader and creator to assistant or appendage in the teaching process, and the teachers and students have both lost the status of subjectivity. However, in the face of the continuous occurrence of "language fossilization" in English teaching, the cognitive function of the image schema is integrated into SPOC English teaching in a targeted way. By arousing the "totality" of SPOC English learning (the learning process and its results), the fossilization of language is reduced(Kang2014). Figure 3 presents the structure diagram of SPOC English teaching model based on the image schema theory, which is divided into the following four links.

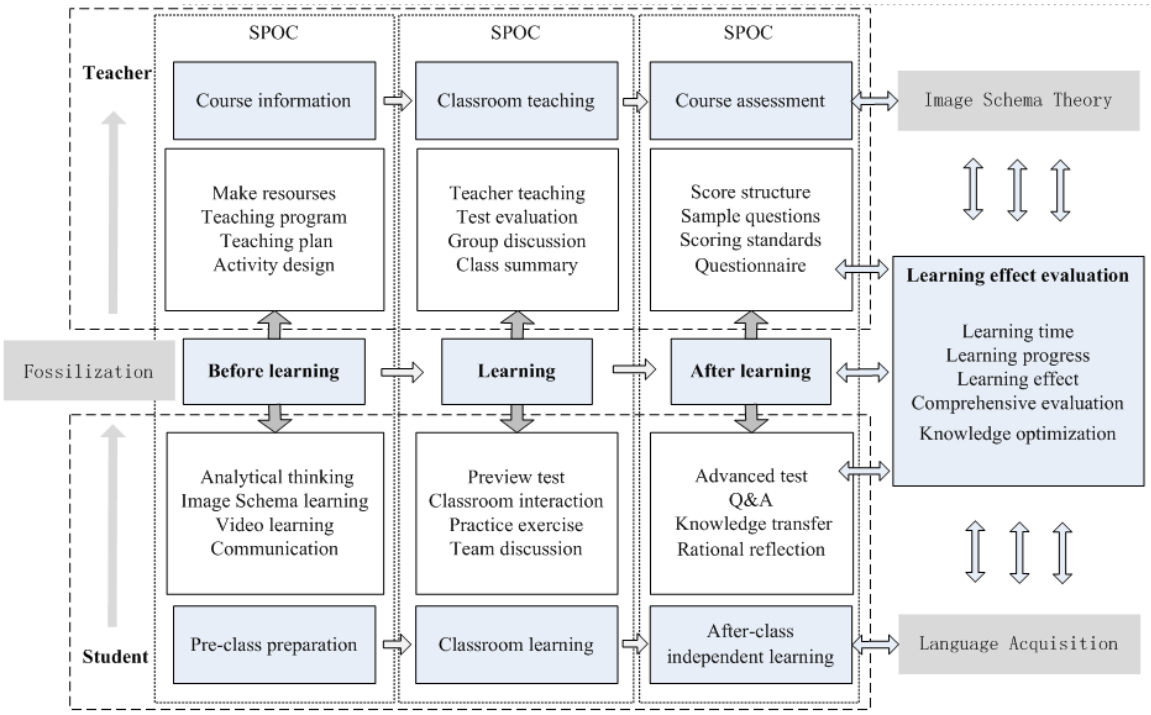

Figure 3. Structure diagram of SPOC English teaching model based on image schema theory

Scenario construction before learning

Setting up corresponding situation before starting SPOC English learning is the key work to stimulate students' cognition of "imagery" structure (Kaplan, A. M *et al*., 2016). Teachers should build the situational atmosphere such as curriculum resources, teaching contents and teaching methods around the key factor of students' image construction. Among them, the image structure of students includes two layers of representational structure, that is, the representation behavior, the things being represented and the relationship between them. Through the relationship between the above two, the teaching situation is designed by using the principle of time and space proximity and the principle of consistency. As shown in Figure 4, with the preview of "hollow" as an example, from the transition of word learning to sentence learning, the image associations between words and diagrams, sentences and diagrams stimulate the knowledge structure and graphic construction ability accumulated in student' personal body, play a dynamic role on the subconscious level of students, and affect the learning behavior of each individual student. The establishment of English teaching situation in the sense of image schema helps to construct SPOC into a world full of meaning, a learning world endowed with feelings and values, and worthy of learners' devotion and efforts.

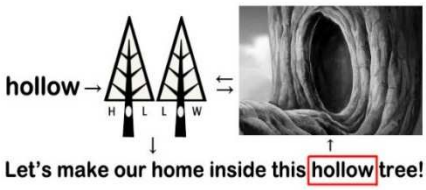

Figure 4. Schematic diagram of English learning words and sentences based on image schema theory

Depth cognition in learning

It is the most important part of SPOC English teaching to help students form their cognition from shallow to deep. It is the concept and real knowledge formation and deep learning process through intelligent organizing, inducting and deducing the imagery graphs. Firstly, pre-class test: As shown in Figure 5, taking "hollow" and "magnet" as an example, the left test form is the abstract to specific expression of knowledge, and the right test form is the transformation from specific expression of knowledge to abstract knowledge generalization (Munoz-Merino *et al*., 2015). On this basis, teachers can basically grasp the difficult problems and interested issues of the students in their independent learning. Secondly, classroom teaching: Teachers introduce media resources (symbolic contrast, pictures, audio, video, animation, etc.) into classroom teaching according to the pre-class test, stimulate students' individual transcendental imagination to form a

concept. Thirdly, thinking expansion: Through the sharing of curriculum learning resources, different students construct personal intellectual thinking logic through interactive experience to realize the evolution of abstract learning content into specific knowledge. Fourthly, class summary: The teacher can guide the thinking and share the experience of each individual student to improve the systematisms and integrity of students' knowledge learning, stimulate students' innovative ability, train students' higher thinking ability, and promote the occurrence of deep learning.

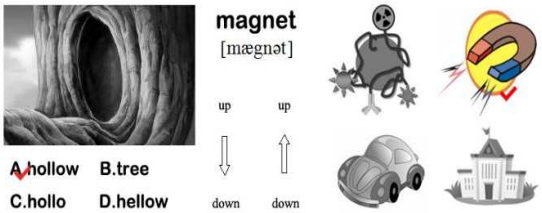

Figure 5. Schematic diagram of English teaching words based on image schema theory

Theoretical reflection after learning

The theoretical reflection after learning means that students take their own experience, taste, behavior or their own psychological structure as the object, and learn by reflexive self-observation, analysis, transformation and other ways. Let the students continue to complete the task after class through the practice link (discovery, exploration, analysis, synthesis) and other ways, and form a deep cognition through the representation behavior, and the things being represented. Teachers help students realize knowledge transfer through the discussion group, answering their questions and so on in the SPOC teaching platform, and teachers will arrange advanced assessment task according to the content of study in class. The students should form correct high-level image schema through theoretical reflection on the learning content of words, sentences and so on. Finally, the students pass the teachers' continuous advanced assessments (Tomory *et al*., 2015). After the assessment, we can continue the new learning task. In the long run, students' academic achievement will be steadily improved, which effectively inhibits the phenomenon of language fossilization. The content of rational reflection after learning includes process reflection, result reflection, situational reflection and image reflection. That is, scientific understanding conclusion can be established through the rational reflection of content after study, deep thinking, verification, and inference.

Knowledge Optimization in Evaluation

Establishing and improving evaluation system is an indispensable part of SPOC English teaching mode. It is the measurement of the ultimate realization of English teaching effect, and it is also the deep evaluation of whether the teaching design is scientific. The process evaluation and summative evaluation on students are combined together through the big data analysis on SPOC teaching platform. Data feedback can accurately identify the key points and difficult points in the teaching content. Statistical methods are needed to conduct significance test. The linguistic characteristics are explored and extracted. A specific theme shall be formed in the content of teaching (Merchant and John,2016). Continuous knowledge optimization and content renovation shall be done in the teaching process. The optimization shall be based on the imageschema theory to carry out management on the teaching content and the teaching elaboration process. The knowledge optimization after evaluation makes the language program design need more targeted language construction teaching material and focuses on the fun of visual teaching materials. Differential information pushing and management are carried out using the SPOC platform and the interactive evaluations and feedback among learners to enhance the accuracy and efficiency of individual reinforcement. The key of comprehensive evaluation is to deeply dig into the problems existing in the learning process to solve actual problem and make innovations.

Conclusions

Image schema theory can provide theoretical support for the development of SPOC English teaching mode

In recent years, the image schema theory has not only attracted the attention of many education scholars, but also quickly infiltrated into the information technology, education and other subjects. This trend indicates that the image schema has great research potential. In the Internet age, SPOC, as a beneficial supplement of the traditional class teaching, breaks the traditional English teaching paradigm. It takes the image schema cognition theory as guidance, endeavors to grasp the features of language fossilization, conduct in-depth research and exploration of the teaching content and constantly

improve the knowledge system to adapt to the ubiquitous learning culture in the Internet era. The effective synergetic design of language fossilization, SPOC and image schema theory provides a feasible approach to English teachers in the new era for changing traditional teaching concept and master SPOC teaching model. Finally, the student's English learning ability is constantly improving through the advanced assessment, thus reaching the goal of language acquisition. The research on the SPOC English teaching mode under the image schema theory is the theoretical thinking and practical exploration of the effective integration of cognitive theory and SPOC, which also serves as a reference for the technology and education workers in the world.

The activity of cognitive linguistics can prevent the language fossilization in SPOC English teaching

According to the image schema theory, learner's comprehension capacity and understanding validity are closely related to the image schema knowledge stored in his/her brain. Therefore, based on the SPOC teaching way, teachers shall activate students' background knowledge, stimulate their interest in learning and help them build up confidence to improve their English level during the process of pre-class teaching materials preparation, teaching activities preparation on the class and homework assignment. Since the image-based predictive power can effectively eliminate the obstacle hindering learners' understanding of text, teachers shall strengthen student's ability to predict the teaching content, enhance their understanding of the deep meaning of the teaching content. Meanwhile, teachers shall also guide students to predict, understand and master listening materials. In this way, the existing image schema knowledge in the students' brain can be constantly expanded, and new knowledge can be constantly constructed into new schema, thereby improving their English level and effectively avoiding the phenomenon of fossilization.

The application of image schema theory in SPOC English teaching can optimize the teaching situation resources

The construction of SPOC curriculum resources is based on image schema theory, which highlights both "quantity" and "quality". The heavy construction of curriculum resources will create psychological burden to the learners and make them anxious. Therefore, it is necessary to follow the image schema theory when the pre-class task is designed. Focuses shall be given to the learners, teaching time and teaching content. Teachers shall budget the time learners spend on completing the pre-class learning tasks. On the SPOC teaching platform, the production of all resources is an embodiment of the image in aesthetics and thinking. It can form an imagery thinking mode in the learner's mind. This kind of image goes beyond the teaching language and extends to the implication of the teaching language. In view of the multiple factors leading to language fossilization, the resources content shall be designed in terms of the scientific arrangement and planning of structural direction, hierarchy structure mode integration, background knowledge inspiration, frequency reinforcement, top teacher pedagogical design, cognitive load constraint, etc.

The subjectivity of cognitive linguistics can arouse the enthusiasm of students in SPOC English teaching

The application of image scheme theory essentially captures the initiative of students and teachers in English learning and teaching. It emphasizes the play of the transcendental imagination and creativity of students and even teachers. Such diversified learning mode as experimental learning, reflective imagination, multiple interaction, and autonomous inquiry can deepen students' understanding, migration and application of the knowledge, activate their innovative thinking and cultivate their high-order imagination and innovation ability. This kind of attempt can clearly position the subjectivity of both teachers and students in SPOC teaching. Based on students' real demand feedback and improvement of teacher's SPOC English teaching level, a virtuous circle of mutual influence, and mutual interaction between teachers and students are formed in the "subject-intermediary-object" teaching activity. Therefore, the development of SPOC English teaching mode enters a benign development orbit. The application of image schema theory to SPOC English teaching will form a brand- new teaching mode and will inject new vitality into the development of educational and teaching technology in the world. It is hoped to realize the organic unification of immediacy and continuity, timeliness and spatiality, subjectivity and objectivity in language learning in the future, to arouse the formation of the "totality" of the SPOC English teaching mode and to form a broad prospect of its own development.

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