English Teaching Design on the Basis of Constructivism

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Abstract
In recent years, with the general improvement in college students’ English level and the growth of the social demand for creative ability and practice ability, constructivism theory still plays an important role in college English teaching and class design. Based on the analysis, on the basis of constructivist learning theory, under the guidance of constructivism theory, the paper is intended to discuss how to design the teaching activities, to help students obtain new knowledge, thus providing constructive suggestions for college English class.

Key words: Constructivism; College English teaching; Design; Teaching mode

INTRODUCTION
Constructivism theory, as a new kind of mainstream of the international education reform, form a new teaching model which is popular in Singapore, Germany and many other countries, which has become a hot topic of education in our country. With the continuous deepening of the reform of English education, more and more people begin to research the educational mode based on constructivism. Constructivism theory has been widely used in college English teaching for nearly 20 years. During this time many scholars and English teachers have a series of achievements in the application of constructivism in theory and practice in college English teaching.

1. THE THEORETICAL BASIS OF CONSTRUCTIVISM
Constructivism was first suggested by a Swiss philosopher, psychologist J. Piaget. He founded the school called “Piaget” (Piaget School) or “Geneva” (Geneva School), which is the most influential school of thought in the field of cognitive development. Piaget (1972) from the perspective of understanding the occurrence and development of children's psychological system, put forward that the cognition is a kind of active construction based on the existing knowledge and experience of the subject, which is also the core of constructivism. He (1972) points out that children's interaction with the surrounding environment, gradually construct knowledge about the outside world, making their own cognitive structure development, he opposed the S-R formula of behaviorism psychology, puts forward the formula of S-(AT)-R, it means: certain stimulation (S), can respond to stimulation (S) only by including the individual “assimilation” (A) in the knowledge structure (T). The interaction involves two basic processes—“assimilation” and “accommodation”. Assimilation means the individuals include the stimuli (information) related to the process of the external environment into their existing cognitive structure (pattern), just like the digestive system can absorb the nutrients. Accommodation means when the external environment changes, the individuals’ original cognitive structure cannot assimilate information related to the new environment, so that the individual stimulation or environmental effects caused the original cognitive structure to adapt to the external environment by making changes and innovations. Obviously, assimilation is an expansion of cognitive structure (schema extension), which is the change of amount; Accommodation is the...
change of cognitive structure (schema change), which is a qualitative change.

Cognitive individual is to achieve the relative balance of these two forms through adaptation (including assimilation and accommodation) as to. Balance is both a state and a kind of process, it is not absolute rest, it is a process from the lower level balance continuously to a higher level of balanced development, when individuals can use existing schema to assimilate new information, the cognitive is in a state of balance, individuals get cognition, understanding is covered by the appropriate schema; And when the original schema cannot assimilate new information (that is, the individual cognitive things), balance is broken, only by modifying or create new schema (suit), we can achieve the balance between new and higher level. Individuals’ cognitive structure is constantly enriched, improved and developed in the loop from unbalanced to balance then to new balance. This is the Piaget’s the basic ideas of constructivism. Based on Piaget’s theory above, many experts and scholars from different angles make researches on the development of constructivism, thus springing up many famous scholars and its different factions. The pioneer of Social constructivism Vygotsky (Vygotsky, 1978) emphasizes the role of learners’ Social and cultural history background, puts forward an important concept of the “marginal zones” (the zone of proximal development); Victor Locke (Wittrock, 1988) put forward the formation of learning process model; Jonathan Jonassen put forward the structural background of experience. These views laid a foundation for the enrichment and perfection of constructivism and the practical application of the theory in teaching practice.

2. THE MEANINGS OF THE CONSTRUCTIVISM LEARNING THEORY

Constructivism believes that knowledge is an interpretation of the objective world, assumption or hypothesis, it will be changed, sublimated and rewritten with the deepening of the degree of recognition, new interpretation and assumptions will spring up. In concrete problems solving, learner need to reprocess and recreate the original knowledge for specific problems. The real understanding of knowledge can only be constructed by the learners themselves based on their own background and experience. Learning activities process depends on the specific circumstances. That is, knowledge is what the learner can get only in certain situation or social and cultural background, with the help of other people (including teachers and learning partners)’s help, using the necessary learning materials, and by means of meaning construction. How much Knowledge the learners can get depends on learners’ ability to construct the knowledge based on their own experience instead of the learners’ memory and the ability to recite the teacher teaching content. In the process of learning, learners get into the learning situation with their own experience as the background, he not only understands the new knowledge, but also analyzes, inspects and criticizes the new knowledge. Thus, constructivism learning theory emphasizes the learner’s cognitive subject, is the meaning of knowledge actively constructing; Teachers play a significant role in organizing, guiding, helping the students to construct their knowledge. In the teaching, teachers can not ignore the learners of the existing knowledge and experience, simple forcefully pour the knowledge into the students’ head. On the contrary, the teacher should take the learners’ knowledge as a new growing point of knowledge, use the learning environment elements such as situation, cooperation, conversation give full play to the students’ initiative, positivity and pioneering spirit, guide from the original knowledge of learners to the growth of new knowledge, finally causes the student to effectively realize the significance of the current knowledge in construction.

3. THE DIFFERENCE BETWEEN THE CONSTRUCTIVISM TEACHING VIEW AND TRADITIONAL TEACHING VIEW

3.1 Different Teaching Ideas

Traditional teaching methods, give priority to “teach”. The knowledge is seen as immutable, mechanically infused to students by teachers, students mechanically and passively accept the knowledge, students are not learning initiative and their initiative cannot be full played. This kind of teaching views believes that teaching is a kind of fixed program, it is to follow established procedures, teaching effect completely can be expected, it has a strong repeatability; The consciousness of the students is seen as a piece of blank paper, teachers just put the picture printed on the paper, high and low scores are considered all of the evaluation system of students’ knowledge. On the contrary, the essence of the constructivism learning theory is that learning is a learning activity for the learners based on their existing knowledge and experience of construction. The learner’s individual difference (existing knowledge, cognitive style, learning attitude, confidence, motivation, idea, etc.) can obtain full affirmation, each new learning activities are directly related to students of the existing knowledge and experience, which is dynamic. Students’ thinking ability and their own associated physiological development and the social experience, and each person’s experience and social environment are different, the observation and understanding of the world is different also, therefore, the evaluation system of knowledge of the students should be set up in the process of “problem solving”
namely, pay attention to students’ understanding of things and the ability to solve the problems.

3.2 Different Teaching Purposes
Traditional teaching purpose is not to encourage the students to analyze what they have observed, but let the students passively accept knowledge. Traditional teaching view, of course, also has its reasonable place, for instance, when the learners begin to get into a new realm, teachers can provide a complete structure of the learning environment, it is good for beginners. The traditional teaching method mechanically limits the learners’ creative thinking. By contrast, Constructivism teaching view believes that student’s enthusiasm, initiative and creativity is crucial, argues that students should “to see” and “to think”, and “to understand”, which is philosophical, logical, paying special attention to the cultivation of the students’ innovative thinking. Constructivism teaching view points out that teachers should strive to create a learning environment, in this environment, learners can construct their own knowledge voluntarily, and learn actively. Active learning, refers to the fact that the learners can communicate actively with the surrounding, get their view of things, to adopt flexible ways to learn. Constructivism teaching view think, teachers should let learners build their own knowledge structure actively, the new knowledge structure set up in this way will not degenerate, instead it can give students the opportunity to learn actively, cultivate their creative thinking ability, therefore, the teaching view advocates learners in the process of learning new knowledge should combine it with their previous personal experience to deepen the understanding of things; Teacher’s job is to help students to combine the old and new knowledge in the process of “learning”. Apparently, constructivism teaching view pays more attention to cultivating students’ ability to analyze and solve problems and creative thinking.

4. CONSTRUCTIVISM TEACHING MODE
As can be seen from the above discussion and analysis, the teaching theory of constructivism, adhere to the students as the center, the teachers in the whole teaching environment act as promoters, organizers and sponsors. Students construct knowledge by active use of various conditions. Based on the above theory, the following several main constructivism teaching mode have been formed: (1) Random-access instruction. This kind of teaching mode is derived from constructivism “Cognitive Flexibility Theory (or elastic Cognitive Theory)”, which refers to the same teaching content is taught to the students in different ways, at different times and circumstances, according to different purpose of teaching process, so as to let the student obtain the same problems or the cognition of the same thing in many aspects. The advantage of this teaching mode is that, it is not as simple as the traditional teaching method and mechanically repeating the same content, but tries to reach deeper problems of a more comprehensive understanding. Its aim is to improve the students’ understanding ability and the ability to learning lively. Understanding of constructivism, for example, we can understand from a biological perspective, to achieve the cognitive construction of biological evolution; From the psychological perspective we can also understand the cognitive psychological construction; we can also understand from the perspective of social culture, social culture play an important role on cognitive construction, and so on. (2) Scaffolding Instruction. This kind of teaching pattern from Vygotsk, “Zone of Proximal Development”, with his assisted learning theory as the foundation, who borrowed the “scaffolding” of the construction points out that the teaching of complex learning task can be decomposed into small pieces, then develop into bigger ones then gradually builds up the concept of overall so as to achieve comprehensive cognition profoundly, and finally, withdraw the scaffolding. Scaffolding learning includes the following several parts: etudes, exploration, and excursion (Glaserfeld, 1995). Its advantage is that it is easy to understand and grasp. (3) Situated or Anchored Instruction, also called “example or case type teaching”. This kind of teaching mode teaching vividly metaphor as a “fixed” as the ship was anchored, on the basis of the infectious and typical instance, help students to understand the nature of the law and the relationship between the things, construct the cognitive schemata. The selected representative examples of teaching are the “anchor”. The teaching method has the advantage of reasonable reward, lets the student have a sense of ownership, feel the profound is easy to be cognitive, exercise the students’ ability to solve practical problems. (4) Top-down model. This kind of teaching mode for the traditional teaching “bottom-up”: first, the integrity of the present teaching task, let the students themselves find the need to complete the addition of subtasks. Its advantage is that students can pay attention to the fact that the knowledge is around the key concept of network structure.

But in teaching practice the teachers should avoid negative comprehensive “bottom-up” approach, should be based on specific teaching objectives and conditions of the teaching content and teaching methods. From what have been discussed above, we believe that we should have the development view of constructivist teaching theory. Compared with the traditional teaching theory, Constructivism teaching theory is not completely negative, but a “reconstruction”, “innovation”. From the traditional into type teaching, intuitive teaching style to the active teaching, active construction of constructivism is undoubtedly the great change of teaching theory. This kind of change can adapt to the physiology, psychology and intelligence, which needs can satisfy the requirements
of the diversity of the students in the modern society. The update of the teaching ideas and concepts has important significance. With a dialectical view, however, the constructivism theory under the framework of sociality and individuality of foreign language teaching, knowledge of objectivity and subjectivity, individual particularity and universality, students’ autonomy and the standardization of the teaching activities, the dialectical relationship between primary and advanced learning, all need to be studied for further comprehension.

5. THE PRINCIPLE OF DESIGNING TEACHING ACTIVITIES IN THE ENVIRONMENT OF CONSTRUCTIVISM LEARNING

Under the constructivist learning environment, several mature teaching methods are formed, such as scaffolding instruction, anchored instruction, and random access instruction. Whatever the teaching method is, teachers should create a conducive environment for the construction of the meaning of the situation for learners, make learners through each other’s discussions get the ideas about how to plan, to complete the learning task, and to complete the collection and analysis of the learning materials, hypothesis and verification, the evaluation of learning outcomes until the final construction of meaning. Therefore, in the design of teaching activities, teachers should follow the following principles:

5.1 Emphasizes Student-centered
Now that students are the central part of the cognitive and the construction of meaning, teachers should concern about the perspective of students, and analyze the needs of students, so as to help students to give full play of their initiative in the learning process, reflect the initiative; To let the students have many opportunities to apply what they learn in the different situations, to externalize their knowledge; let the students form the understanding of objective things and to solve practical problems according to their own action feedback.

5.2 Emphasizes the Important Role of “Situation” of Meaning Construction
Constructivism believes that learning always exist in certain social cultural background of the “situation” interaction in the process of implementation. Learning under the actual situation, can make students use the original schema to assimilate new knowledge, make it become part of their own. When students can’t use the original schema to assimilate new knowledge, they should make changes to the original schema or reconstruction (suit), so as to adapt to the environment. Therefore, the teacher in the design of teaching situation, must first understand the students’ zone of proximal development (that is, students’ current level and through other people to help can achieve a higher level of the gap between), on a basis of its original knowledge structure, make full use of forecasting the possible reaction; Second, teachers should take into account the students’ psychological characteristics, teaching situation, emotion attitude, to ease the anxiety of students, which can be beneficial to students’ learning; Finally teachers should also be close to the actual teaching situation, should actively promote the English subject and other subjects, the mutual infiltration and connection between the students’ thinking and imagination, aesthetic thought of constructivism, “collaboration” means between teachers and students, between students and students of collaboration, it gets consistently throughout the learning process. Students in the collaborative learning under teachers’ organization and guidance, through self-consultation (i.e., yourself and your repeatedly to discuss what is reasonable) and mutually agreement (that is, the study group internal or debate, discussion and debate) between teachers and make the current learning concept, a variety of opinions, or complicated situation gradually become clear. Based on Shared collective thinking results, students can understand the current knowledge in more comprehensive and correct way and finally finish of the meaning construction of knowledge. Collaborative learning is to complete the meaning construction of knowledge by all the members in a learning group, rather than one or several of these students complete meaning construction.

5.3 Emphasize the Use of a Variety of Information Resources to Support “Learning”
To support the learners’ active exploration and autonomous learning, the teacher can provide resources through teaching activities for students who can make use of various tools and all kinds of information resources, such as text materials, books, audio and video data, and multimedia CAI courseware as well as information on the Internet, etc. In addition, teachers should help students deal with how to obtain, where access to information resources, and how to use them effectively.

5.4 Emphasize Learning Ultimate Goal is to Achieve Meaning Construction
In the constructivist learning environment, the ultimate goal of the learning process is that students can complete the meaning of knowledge construction. Teaching design was conducted on the basis of the analysis of the teaching goal to select the current knowledge in the basic concept, basic principle, basic methods and basic process as the current knowledge in ‘theme’ (or ‘basic content’), and then design environment around this topic which is helpful for students’ meaning construction situation, then make the whole process of teaching design closely around “meaning construction” which is always the center, both of the students’ independent exploration, co-operative
learning and teachers’ guidance, in a word, all activities in the process of learning should be subordinate to the center, should be beneficial to complete and deepen the meaning of knowledge construction.

5.5 Emphasize the Importance of Study Effect Evaluation

In the design of teaching activities, the evaluation of learning effect should also be included. Through the evaluation, learners can find the problem so as to adjust activities. Study effect evaluation should be a combination of formative assessment and summative assessment, including the student individual or self-assessment and study groups for individual learning evaluation, evaluation content includes: (1) the independent learning ability; (2) the contribution of group cooperative learning; (3) whether they have completed the meaning of knowledge construction.

Su Dingfang in the article College English Classroom Teaching What to Teach and How to Teach points out: the effect of classroom teaching should reflect whether to stimulate the students’ learning enthusiasm and initiative, whether to provide students with the right resources and the opportunity to learn, whether to cultivate the students’ learning strategies, whether to help the students to solve learning difficulties and whether to provide students the opportunity to demonstrate the students’ achievement, etc. So college English classroom teaching activity design will cover topics of teaching materials and the effective combination of classroom activities not only to let the students master the language knowledge but also to apply knowledge to classroom communicative activities, at the same time, pay more attention to the cultivation of students’ cross-cultural consciousness to improve students’ ability to use English in intercultural communication. Constructivism learning theory provides a strong theoretical basis for designing the science classroom activities. In the design of teaching activities, teachers should pay attention to the diversity of type and activity levels. The level of the activity can be divided into knowledge, understanding, application and evaluation.

Activity types can be divided into language and non-verbal class activities, also can be divided into visual, listening, class activities, also can be divided into type input and output activities. Based on New Standard College English Book 1 Unit 3 of “my first oyster” in vocabulary teaching, for example, how to design teaching activities based on the constructivism theory. Before the activity: preparation before class. The first step, put the students into groups, each group of three or four students; The second step, students are required to find a paper describing the seafood’s discourse, find out the vocabulary and sentences describing food; The third step, require students to use dictionary and other reference books, find out the meaning of new words in the text, the structure, basic usage; The fourth step, students are required to find out about food vocabulary and their statements and divided into materials, seasoning, cooking way, name of dishes and other categories. Activities: the first step is to use multimedia system play the videos about food for the students. Require words in each group use the text description of the food’s appearance, taste, smell, and table manners. The second step, students are required to tell company find their discourse about food. The third step, require to learn and use what they have learned vocabulary common to complete a short essay “my favorite dish”.

CONCLUSION

Constructivists, on the basis absorbing Vygotsky and Piaget’s ideas, put forward the idea that the teachers should give full play to the initiative of the learners in the learning process. They point out that teachers should strengthen collaborative learning, etc., in the real situations for the teaching activity and provide the design principle, for deepening the reform of current education teaching, which apparently has profound significance. However, traditional teaching attaches great importance to the knowledge of certainty and universality, pay attention to the analysis and abstraction, it is necessary, and at the primary stage of learning has its rationality. Teachers should be guided by the dialectical materialism, the comprehensive measure of concrete and abstract, junior and senior learning such as, the relationship between the reasonable design of teaching activities, to fully mobilize students’ learning initiative and help them to complete the construction of new knowledge.

REFERENCES