Constructivism Teaching Theory and its Enlightenment to Chinese Teaching

Yufei He
College of Education and Sports Sciences, Yangtze University, Jingzhou, 434023, Hubei, China

Abstract

Constructivism believes that knowledge is a hypothesis or explanation of the objective world, not a precise summary and reflection of reality, and will change and develop with cognitive activities. The application of Constructivism teaching theory in Chinese teaching overturns the traditional teaching view, reorients the roles of teachers and students, and makes the teaching develop towards a more democratic, equal and efficient direction, it has played an important role in the process of teaching reform in our country.

Keywords

Constructivism; Teaching Theory; Classroom Teaching; Chinese Teaching; Enlightenment.

1. Introduction

Constructivism was first put forward by Jean Piaget. With the advent of the information age, the ideas of knowledge, learning and teaching advocated by Piaget, though restricted to a certain extent, still exude infinite brilliance, it has a great influence on Chinese education and teaching today. On this basis, the application of this theory in education and teaching practice is continuously developed and explored in order to connect theory with practice, to make use of the advantages of various people for one’s own use, to promote the achievement of educational goals and to enhance teaching effects, is very necessary. At first, Constructivism is not a kind of teaching theory, but a kind of philosophy thought. The educational psychology absorbed and introduced the Constructivism thought and carried on the unceasing enrichment and the development, at the same time gradually permeates into the teaching domain, the formation of constructivist teaching theory. This paper introduces the Constructivism teaching theory from its background, basic viewpoint, teaching mode, evaluation and so on, and puts forward five concrete enlightenments to Chinese teaching in order to improve teaching.

2. The Background of the Emergence of Constructivism Teaching Theory

Any kind of theory has its necessity and rationality, which does not come out of thin air, and Constructivism teaching theory is no exception. The emergence and development of constructivist teaching theory is on the basis of criticizing the traditional teaching view which is teacher-oriented and emphasizing knowledge imparting, and reflecting on the contrary to the development of the times and the progress of mankind, on the basis of the existing teaching theories which can not meet the needs of human beings, and from the angle of students and cognition, in order to meet the needs of the development of the pluralistic society, and at the same time to meet the requirements of individual development, including economic development, scientific and technological progress, philosophy and psychology.
2.1. Economic Background

After the 20th century, human beings have a deeper understanding of nature and society. Science and technology have been unprecedented development, the economy has been rapidly promoted, resulting in a series of social changes. On the one hand, economic development has shown the trend of globalization, forming you have me, I have you situation. Trade between countries is becoming more and more intensive, which is a challenge as well as an opportunity for talent. We need to upgrade our capabilities in order to seize the opportunity. On the other hand, in the era of abundant material wealth and information explosion, there is a growing trend of pursuing the diversification and Individualization of individual development of life, and higher requirements for education, teaching is required to comply with the physiological and psychological needs of learners and arouse their subjective initiative.

2.2. Scientific Background

With the rapid development of science and technology in the world, the information society comes quietly and the computer communication technology develops vigorously, which requires the education to develop in the direction of humanism, it is urgent to meet the needs of the times, education and teaching and the needs of students by humanization of educational ideas, informationization of teaching means and diversification of educational methods. The constructivist idea of student-centered construction teaching, inquiry teaching, scaffolding teaching, situational teaching, cooperative learning and other scientific teaching methods, this makes the theory in the new era of education and teaching in the glow of great vitality.

2.3. Philosophical and Psychological Background

In terms of philosophical background, the 18th-century Italian philosopher Giovanni Battista Vico pointed out in his book the principles of a new science of the nature of peoples, human beings are born with an instinctive and distinctive “Poetic wisdom”, which originates from the human mind and is beyond the reach of rational cognition. So man can only clearly understand what he has constructed. As far as the psychological background is concerned, the view of constructivist teaching theory can be traced back to Piaget’s psychological theory, who is regarded as one of the pioneers of modern Constructivism. Piaget emphasized the importance of the background knowledge of the learner, and considered that the learning process is the process of obtaining new schema by assimilating, adapting and balancing the existing schema, that is, people can clearly see that knowledge is actively constructed on the basis of children’s own experience, so as to obtain a new understanding of the process.

2.4. Theoretical Background

The constructivist view of teaching is the criticism and development of the traditional view of teaching, what is more, it is influenced by the cognitive style, learning motivation, emotion and values of the learners themselves, which are neglected by traditional teaching. Humanistic Education has a profound impact on constructivist teaching theory. In the 1960s, the humanistic educational trend represented by Rogers developed and flourished in the United States. It points out the disadvantages of traditional teaching theory, and advocates that teaching should respect the nature of children, pay attention to the development of individual personality and self-realization, and advocate the cultivation of students’ independence, criticism and creativity. The famous American psychologist Bruner put forward the theory of learner-centered learning and Ausubel put forward the theory of meaningful learning, teachers should teach students based on what they already know. Vygotsky puts forward the theory of cultural-historical development, which emphasizes the role of the socio-cultural-historical background in cognitive activities, and the theory of the zone of proximal development, which greatly enriches the connotation of Constructivism. In the 1980s, constructivists, represented by Von Glasersfeld, first raised Constructivism to a theoretical level, and explicitly put forward
the theory of Constructivism, and gradually infiltrated the field of teaching. All these have laid the theoretical foundation for the formation of Constructivist teaching theory.

3. The Basic Viewpoints of Constructivist Teaching Theory

3.1. View of Knowledge

First, structuralists believe that knowledge is not a purely objective reflection of reality, nor is any kind of symbolic system for conveying knowledge an absolute representation of reality. Knowledge is an explanation, hypothesis or hypothesis to the objective world, not the final answer to the question. It will be changed, sublimated and rewritten with the deepening of People's understanding, new interpretations and hypotheses. Second, knowledge does not sum up the laws of the world with absolute accuracy and provide a practical approach to any activity or problem-solving. In the specific problem-solving, the knowledge can not be used on the spot, but needs to be re-processed and re-created for the specific situation of the original knowledge. Finally, knowledge can not exist in the form of entities outside the individual, although through language to give knowledge a certain external form, and has been more generally recognized, this does not mean that learners have the same understanding of such knowledge. The real understanding can only be constructed by the learners themselves based on their own experience background, and depends on the learning process in a particular situation. Otherwise it's not understanding, it's rote learning, it's passive replication.

3.2. View of Students

The constructivists stress, first of all, that learners do not enter a learning situation empty-headed. In daily life and various forms of learning in the past, they have formed the relevant knowledge and experience, they have their own views on everything. Even if they have never been exposed to a problem and have no ready-made experience to draw on, they can still rely on their current cognitive abilities, based on past experience, when the problem is presented to them, form an explanation of the problem and make assumptions.

Secondly, teaching should not ignore the knowledge and experience of the learners, but should take the original knowledge and experience of the learners as the growing point of the new knowledge, guide the learner from the original knowledge and experience, the growth of new knowledge and experience. Teaching is not the transfer of knowledge, but the processing and transformation of knowledge. The teacher is not only the knowledge presenter or the symbol of knowledge authority, but should pay attention to the student's own understanding of various phenomena, listen to the student's views, think about the origin of these ideas, and take this as the basis, guide students to enrich or adjust their interpretations.

Finally, teachers and students, students and students need to jointly explore some issues, and in the process of exploration of mutual exchange and query, to understand each other's ideas. Due to the unavoidable differences of experience background, learners' views and understanding of problems are often very different, but these differences are themselves a valuable phenomenon resource in the students' community. Although Constructivism attaches great importance to individual self-development, it does not deny external guidance, that is, the impact of teachers.

3.3. View of Learning

First of all, learning is not a simple transfer of knowledge by teachers to students, but by students themselves to construct knowledge process. Students do not simply passively receive information, but actively construct the meaning of knowledge, which can not be replaced by others. Second, learning is not passive to receive information stimulation, but active construction of meaning, according to their own experience background, the external information to actively select, process and processing, so as to obtain their own meaning.
External information has no meaning in itself; meaning is constructed by learners through the process of repeated, two-way interaction between new and old knowledge and experience. Thus, learning is not a "Stimulus-response" as behaviorism describes it. Third, the acquisition of learning meaning is based on the original knowledge and experience of each learner, new information re-understanding and coding, building their own understanding. In this process, the learner's original knowledge and experience will be adjusted and changed because of the new knowledge and experience.

At last, assimilation and adaptation are two ways that change the cognitive structure of learners. Assimilation is a quantitative change in cognitive structure, while adaptation is a qualitative change in cognitive structure. Assimilation, adaptation, assimilation, adaptation, it is a cycle. Balance, imbalance, balance, imbalance, it is an interchangeability, which is the process by which a person's cognitive level develops. Learning is not simply the accumulation of information, but more importantly the conflict between new and old knowledge and experience, and the reorganization of cognitive structure. Learning process is not a simple information input, storage and extraction, but a two-way interaction process between new and old knowledge and experience, that is, the interaction between learners and learning environment.

3.4. View of Perspective

First, constructivists think that teachers are the faithful supporters of Students' constructive knowledge. The role of teachers from the traditional transfer of knowledge of the authority to students to study tutors, to become students learning senior partners, collaborators. Teachers should provide students with complex and real problems, not only to develop or discover these problems, but also to recognize that there are multiple answers to complex problems and to stimulate students' multiple perspectives on problem solving, are closely aligned with the purpose of creative teaching activities. Teachers must create a good learning environment in which students can develop their learning through experiments, independent inquiry, cooperative learning and other ways. Teachers must ensure a balance between learning activities and learning content. Teachers must provide students with metacognitive tools and psychometric tools, cultivate students' critical cognitive processing strategies, and construct their own mental models of knowledge and understanding. Teachers should recognize that teaching goals include cognitive goals and emotional goals. Teaching is a process of gradually reducing external control and increasing students' self-control of learning.

Secondly, the constructivists think that teachers should be the active helper and guide of Students' constructive knowledge, should stimulate students' interest in learning, and arouse and maintain students' learning motivation. By creating teaching content in line with the requirements of the situation and hint between the old and new knowledge clues to help students construct the meaning of the current knowledge. In order to make students' meaning construction more effective, teachers should organize cooperative learning, discuss and communicate as much as possible, and guide the process of cooperative learning so as to make it develop in a direction conducive to meaning construction.

Finally, students are active participants in teaching activities and knowledge of the active constructor. Constructivists require students to face and complete tasks in real-world situations, so they need to adopt a new learning style and a new cognitive processing strategy, form a mental model of being a builder of knowledge and understanding. Constructivist teaching requires students to take on more opportunities to manage their own learning than traditional teaching does; teachers should take care to keep opportunities in the "Student's zone of proximal development" proposed by Vygotsky, and provide some coaching. Students use exploration and discovery to construct the meaning of knowledge. In the process of meaning construction, students are required to collect and analyze relevant information, put forward various hypotheses and try to test them. Must be good at the current study content as far as
possible with own already knowledge experience connection, and ponders this connection earnestly. Connections and thinking are key to meaning construction. It works best in conjunction with the negotiation process.

3.5. View of Curriculum

Curriculum is a comprehensive system in the perspective of Constructivism, which can be defined from the following four levels. First, the curriculum is a “Comprehensive” system. As far as the Constitution of curriculum content is concerned, it means that knowledge is not the only element of curriculum in the constitution system of curriculum content, these elements and knowledge together constitute the curriculum content system. Second, knowledge is still the basic element of the curriculum, knowledge is the most important part of the content of the curriculum, but the nature of knowledge, access to knowledge has changed, access to knowledge is not a process of replication, it is a process of active construction. Third, not all existing knowledge can become knowledge of the content of the curriculum, only through social choice of knowledge can enter schools and classrooms, become curriculum knowledge, and thus constitute the knowledge system of the curriculum, whether it is subjective knowledge of humanities and social sciences, or relatively objective knowledge of natural sciences, there is a process of social construction. Fourthly, even the curriculum knowledge that enters the teaching material, in the concrete curriculum implementation, also needs a teacher and student’s individual construction process, that is to say, the curriculum knowledge that enters the school and the classroom is only a text, the generation of the meaning of curriculum knowledge depends on the interpretation and grasp of teachers and students. From the perspective of Constructivism, curriculum refers to the medium of interaction and development between teachers and students in the educational activities formed by the selection and processing of knowledge and cultural system developed by social construction.

4. The Teaching Model of Constructivism

All cognitive activities must be based on the existing cognitive structure of the cognitive subject, so a person’s knowledge of the language must be based on personal operation of experience, interaction with the environment and through reflection to actively construct. In the whole teaching process, teachers play the role of organization, supervision and promotion, and give full play to students' initiative, enthusiasm and innovative spirit through learning environment factors such as situation and cooperation, finally, students can effectively realize the significance of the current knowledge construction. Under the background of constructivist teaching theory, there are several mature teaching modes at present:

4.1. Scaffolding Instruction

The theory of scaffolding instruction is based on Vygotsky's zone of recent development theory. The purpose of scaffolding instruction is to develop students’ problem-solving ability and autonomous learning ability. The“Scaffolding” in scaffolding instruction should be built on the “Zone of proximal development” of students, guiding students continuously through the scaffolding effect, so that their intelligence from one level to another higher level.

Scaffolding instruction mainly includes five parts: first, scaffolding, with the current learning theme as the center, with the “Zone of proximal development” as the background to construct the conceptual framework; To create the relevant problem situation, so that students into the conceptual framework of a node; third, independent exploration, so that students carry out independent exploration; fourth, collaborative learning, inter-group communication, learning; fifth, evaluation of the effects of learning, including self-evaluation and evaluation of others.
4.2. Anchored Teaching

Anchored teaching is a kind of teaching mode based on infectious real events or real problems, which is compared as "Anchored". In the view of constructivists, it is the best way for learners to feel and experience in the real world of the real environment, so as to realize the meaningful construction of what they have learned, it is not enough to listen to the teacher explain and describe the experience.

There are four steps in anchored teaching: first, setting up the real situation for the learners according to their development needs; second, identifying the problem, choose the real events or problems that are closely related to the learning topic and let the students deal with them. Third, the learners should learn to think and solve problems independently, collaborative learning, teachers and students, students and students will communicate with each other, and from the solution to the problem;

4.3. Random Access Instruction

The teaching mode of Random Access Instruction is a kind of teaching mode which is presented by different circumstances, different time, different teaching methods and different teaching purposes on the same teaching content. The learner learns the same teaching content many times will be able to realize to the knowledge more comprehensive and the more in-depth knowledge, can deepen the learner to the thing full understanding and the understanding.

There are five steps in random entry teaching: presenting basic situation-random entry learning-thinking development training-group cooperative learning-evaluation of learning effect.

5. The Evaluation of Constructivist Teaching Theory

As a new epistemology, Constructivism has exerted a profound influence on educational theory. It transcends cognitivism and behaviorism and is a revolution against traditional education. It is emphasized that the acquisition of knowledge is active construction, not passive acceptance, especially that meaning construction provides strong theoretical support for the reform of traditional "Spoon-feeding teaching". It is emphasized that learners are the active constructors of knowledge meaning and the center of teaching process, which has a positive enlightening effect on the correct understanding of students' status in the teaching process.

At the same time, constructivist teaching theory also has some limitations. First of all, constructivist teaching theory overemphasizes the initiative, situational and social nature of learning, and to some extent neglects the teaching of knowledge itself. If there is no actual knowledge of the content of the teaching, it is difficult to cultivate students' adaptability. Without strong intellectual content to back it up, the intellectual development of students will also face difficulties. Secondly, constructivist teaching theory requires teachers to change their roles as knowledge imitators, and advocates that teachers should play the role of helper and facilitator of students' active construction of knowledge, but teachers can not become experts in every difficult problem of students, so teachers in teaching activities with students to become a learner, teachers are asked to completely forget the view of teacher-centered, this is a great challenge for teachers who are deeply influenced by traditional teaching ideas. Therefore, in the process of teaching practice, how to change the role of teachers, so that students become facilitators of learning, need more in-depth study. Thirdly, the universal and extensive use of multimedia computer and network technology is the basis of the application of Constructivism teaching theory in practice. Therefore, at present, in order to effectively implement the theory of Constructivism teaching needs a longer time.
6. The Enlightenment of Constructivism Teaching Theory to Chinese Teaching

Chinese is a comprehensive discipline, involving literature, history, philosophy, sociology and other aspects, with a variety of cultural connotations. The appearance of Constructivism brings new teaching enlightenment to Chinese teachers, which can promote students' comprehensive ability and accelerate the pace of Chinese teaching reform.

6.1. To Formulate Student-oriented Teaching Objectives

From the perspective of Constructivism, students' existing cognition and experience are very important, so teachers should pay attention to the guiding role of students' existing experience in the process of classroom teaching. Teachers must carry out the student-centered educational concept, and when making the curriculum objectives, they should not only pay attention to the students' mastery of new knowledge, but also strengthen the review of old knowledge and pay attention to the differences of students, according to the situation of different students to formulate a reasonable three-dimensional teaching objectives, and in the specific implementation process according to the objectives in an orderly manner. Students should treat life correctly and establish Marxist values.

6.2. Create a Problem Situation to Stimulate Enthusiasm

Constructivism believes that teachers should be the important supporters of students' constructive experience, and should stimulate students' enthusiasm for learning. Therefore, in the teaching of Chinese, teachers should set up problem situations that are in line with students' learning of the content of the text, stimulate students' curiosity, make students' active divergent thinking research, promote students' deep understanding of the text, improve the quality of students' Chinese learning.

Students in the learning process must be based on different problems to create a targeted situation. For example, when teaching expository text, teachers can create questions according to the characteristics of expository text to enable students to actively explore the content, words, expression and other issues of the article. After seeing the problem, students actively communicate with their partners, express their views and learn from the experience of others. Students study the text with questions, and continue to explore the key content of the article, and students to discuss each other, and finally get the answer to the problem, a sense of achievement, inspired students to participate in the enthusiasm of language learning.

6.3. Strengthen the Interaction between Teachers and Students

Constructivism believes that the interaction between teachers and students, students and students is beneficial to students' active construction of cognitive experience, and promotes the consolidation and promotion of students' existing cognition, therefore, Chinese teaching must pay attention to their interaction and cooperation. If teachers only pay attention to the completion of teaching tasks, and only teach knowledge in the classroom, then students are only mechanical submissive, no self-awareness, only in accordance with the teacher's instructions to learn knowledge. According to the overall situation of the students in the class, teachers should link the teachers and students through two aspects. On the one hand, we should go deep into the students' group, understand their psychological state, existing knowledge and experience, foundation and characteristics, grasp their learning progress, and pay close attention to the students' evaluation of the Chinese classroom learning effect, adjust the teaching plan according to the students' classroom performance. On the other hand, teachers should adopt a variety of cooperative methods to promote communication among students, in the interaction of language classroom learning to resolve the existing doubts, deepen the understanding of the language focus. Through the way of interaction between teachers and
students, teachers make students form the consciousness of active cooperation and exploration, and promote the common development of teachers' "Teaching" and students' "Learning", promote teachers and students to improve the level of language awareness.

6.4. Innovating and Diversifying Teaching Models
The traditional Chinese teaching mode has a single form and the teacher's teaching process is fixed, which can not bring students a sense of freshness and promote the improvement of teachers' skills. Therefore, teachers should innovate teaching methods, such as "Scaffolding instruction" and "Anchored instruction", to promote students' knowledge construction and improve their comprehensive ability. Teachers can absorb the advantages of the Constructivism teaching model and innovate the students' learning methods from different angles. First, according to the students' "Recent development area" to create a problem situation in line with teaching, so that students continue to think and explore with problems, fully mobilize the enthusiasm of students. Second, the use of group cooperative learning, so that students in the discussion with teachers, partners, on the basis of sharing the results of group thinking, clear language key knowledge content, reduce the language difficult problems of students to understand the threshold. Third, let the students learn the language text in contact with life, not the classroom as a fixed place, can lead students to outside the school, to life, to promote students to contact the improvement of life ability.

6.5. Choose an Assessment Method that Focuses on Comprehensive Abilities
Chinese subject covers a wide range of content, in addition to learning the phonetic, glyph and other basic content, but also includes the ability to understand, explore the ability and other aspects. Constructivism emphasizes that the ultimate goal of the learning process is to complete the meaning construction, so the diversity of the content of the Chinese subject and the particularity of the Constructivism aim lead to the change of teachers' evaluation of Students' learning, we should not only pay attention to the students' marks on the paper, but also pay attention to the students' performance in the process of knowledge and experience construction, so as to promote the improvement of teachers' own teaching level and deepen the attention to the students' knowledge construction.

Teachers should choose formative evaluation, can use advanced science and technology design evaluation small procedures, reasonable development of evaluation of student learning standards, long-term records of students about the process of knowledge construction performance and teachers and students, students between the evaluation of the content. For example, students in the Chinese classroom and students to explore the state of common problems between students, students learning Chinese enthusiasm, students evaluation of various aspects. At the same time, teachers' attention to the process of students' knowledge construction does not mean that they neglect the evaluation of students' Chinese learning results, but rather that they should pay attention to the process of students' knowledge construction and students' final Chinese test results, the process and the result pay equal attention to, the close teacher and the student's contact, strengthens to the student study process the multi-aspect attention, enhances the student to the language study the degree which likes.

Constructivism breaks the teacher-centered situation in traditional Chinese teaching, makes teachers pay attention to the difference of students' mastery of knowledge, and determines that students are the main body of Chinese learning. The integration of Constructivism and Chinese teaching can accelerate the progress of Chinese teaching reform and stimulate the enthusiasm of students to participate in Chinese learning. As a teacher in the new century, we must renew our ideas, innovate boldly and develop learning resources actively, under the guidance of Constructivism teaching theory, to change the teaching process from the traditional teacher-centered explanation mode to the student-centered self-construction mode, through the
situation creation, the cooperation study, the significance construction better promotes the student's overall development and the individuality development, truly creates a brand-new situation for the teaching.

References


