

English Education based on Piaget's Cognitive Development Theory

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Abstract: As an important subject, in today's society, the importance of English teaching is self-evident. How to better conduct the English teaching classroom has increasingly become an important issue for educators to think about. This paper uses Piaget's theory of cognitive development to explore how to combine the law of cognitive development of teenagers to carry out English teaching. The article is divided into four parts, the first part is the introduction, the second part is Piaget's theory of cognitive development, the third part is how to combine the law of cognitive development of teenagers to carry out English teaching, and the fourth part is the conclusion and prospect. The purpose of this paper is to explore how to better carry out English teaching in order to provide some reference for educators in classroom teaching.

Keywords: English teaching; Piaget's theory; Cognitive development

1. Introduction

This paper discusses how Piaget's theory of cognitive development is applied to English teaching for teenagers. The education of teenagers must take into account their cognitive changes and development. English teaching plays an important role in adolescent education. It is of great significance for English educators to study how Piaget's cognitive development theory is integrated into teaching methods. With the continuous development of human society, English, as an important communication tool, has gradually been widely used all over the world.

As Chinese, we are also learning Chinese and English. As a universal language, English is playing a more and more important role in today's society and jobs. In addition to learning English to complete their studies, the reason why teenagers need to master English is also related to their future career development. Therefore, the work of educators in English teaching has become a particularly important task, and how to better carry out English teaching and better serve the learning of young people is one of the important factors.

Teenagers are a very risky age between individualization and growth. The huge growth rate, special physical condition, weakening social participation and habit formation, coupled with the promotion of subjects such as mathematics and English, make young people's desire for English learning not obvious, which increases the difficulty and urgency of English education.

How to enable students to master certain English skills and become English experts in the limited time of English education is a difficult point in English education. Therefore, in English education, students' cognition should be gradually deepened to make learning more intelligent.

2. Piaget's theory of cognitive development

2.1 Cognitive development stage

Let Piaget's theory of cognitive development be recognized as the basic theory of psychological development, especially human cognitive development.

This theory explains the development of human cognitive ability from birth to adulthood, as well as the development of specific cognitive abilities related to a particular age group (Piaget, 1954).

Piaget proposed a four-stage model of cognitive development, which explains the cognitive development from childhood to adolescence.

It includes sensorimotor stage (from birth to 2 years old), pre-calculation stage (2-7 years old), specific operation stage (7-11 years old) and post-calculation stage (11-16 years old).

The sensorimotor stage is characterized by the development of sensory and motor coordination ability; the pre-operation stage includes the development of symbolic thinking and imaginative games; the specific operation stage is the development of logical thinking and causal understanding; finally, the formal operation stage of abstract thinking and the ability to analyze complex concepts.

Piaget's development stage represents several branches of the language acquisition and learning process, and it is very important to understand these stages in the context of adolescent English teaching.

2.2 Cognitive Development and Teaching

The application of Piaget's cognitive development theory in teenagers' English teaching provides a basic understanding of the learning process.

As teenagers go through different stages of cognitive development, it is important that their learning experience keep pace with their level of cognitive development.

Piaget's theory of cognitive development refers to the development process of human thinking, knowledge and learning, which is summarized as a dynamic system of change, in which each stage of development requires different ways of thinking, abilities and processes.

Piaget's cognitive development theory mainly analyzes children's cognitive development, but it also has reference significance for teenagers' cognitive development. In Piaget's theory, human thinking and cognition is a process of continuous evolution, mutual communication and interaction, experiencing the evolution from perceptual knowledge to abstract thinking.

Children's cognitive development has gone through such four stages, namely, perceptual movement stage, pre-operation stage, concrete operation stage and formal operation stage.

The main task in the perceptual movement stage is to establish the concept of an object, and then in the pre-operation stage, children begin to learn the use of symbols and whether they can act according to instructions. Entering the specific operation stage, children can begin to think about operation and understand logic. Finally, entering the stage of formal operation, children have mastered abstract concepts, so that they have a stable and efficient level of thinking and cognition.

According to Piaget's theory, educators should design different teaching methods according to the stage of students' development. at the same time, educators should grasp the cognitive development of students as much as possible, under these conditions, in the process of education, ensure learners' autonomous, active and cooperative learning atmosphere in order to build an environment conducive to learning.

The sensorimotor stage is marked by the development of motor and sensory coordination, which is a pleasant stage for children. In language classes, similar activities can be initiated to enhance the motor and sensory abilities of young learners in learning English. Activities include singing English songs, role-playing, and using English flashcards. In the pre-computing phase, children become more imaginative, think, and make connections between images and abstract concepts. Their cognitive ability has also been improved, and they can participate in more complex games to improve their understanding of English, including telling stories, drawing pictures, making simple descriptions using pictures, and associating words with pictures.

In the specific operation stage, this stage is characterized by the development of logical thinking and understanding of the concept of relationship, including causal events.

At this stage, English teachers can integrate more complex activities and develop static logical thinking and simple English reasoning. Activities such as organizing simple dialogues and debates, solving problems through dialogue, and reading English books with background are all helpful to teenagers' learning experience.

In the formal operation stage, the final stage of cognitive development emphasizes abstract thinking, analytical skills and the ability to draw conclusions from several pieces of information received. Therefore, English teachers are encouraged to organize activities to promote the exponential growth of language skills.

Activities that include research, debate, analysis and 'if, then' discussions will enable students to strengthen their language skills.

3. The influence of Adolescent English Education on Cognitive Development

3.1 Cognitive characteristics of adolescents

The cognitive characteristics of teenagers include: rapid development, enhanced self-awareness, gradual abstraction of thinking, strong memory, gradual improvement of the ability to understand and use language, and further development of attention and thinking ability.

3.2 Influence of English Education on Cognitive Development the influence of English Education on Cognitive Development

By learning English, students' knowledge reserve and vision can be enriched and their comprehensive quality can be improved. English education can promote students' cross-cultural communication ability and cultivate their cross-cultural awareness and cognitive ability. English subjects pay attention to the way of thinking and problem-solving ability, can promote students' independent thinking and analysis ability, and cultivate students' innovative spirit.

The learning process of English subject requires a lot of language input and output, which can promote the improvement of students' oral, listening and reading ability.

3.4 Case analysis

Xiaoming is a junior high school student who has been learning English for three years. In the process of learning English, he gradually established an English knowledge framework, improved his memory ability, and improved his ability to understand and use English. At the same time, English subjects pay attention to the way of thinking and problem-solving ability, in the process of learning, Xiaoming gradually formed the ability of independent thinking and analysis. In addition, by learning English, Xiaoming has come into contact with different cultures, enhanced his cross-cultural communication ability, and cultivated his cross-cultural awareness and cognitive ability. In a word, English education has a positive impact on Xiaoming's cognitive development.

4. English Education practice based on Piaget's Cognitive Development Theory

The practice of English Education based on Piaget's Cognitive Development Theory Piaget's Cognitive Development Theory is one of the most important theories of child psychology in the 20th century, and it is also one of the widely used theories in the field of education.

Piaget believes that children's cognitive development is a gradual process, children gradually adapt to the new situation through their own experience, and then self-learning and development.

Based on Piaget's cognitive development theory, this paper will explore the curriculum design, teaching methods, evaluation methods and teaching practice cases in English education practice.

4.1 Curriculum design

In the practice of English education based on Piaget's cognitive development theory, curriculum design should be as close as possible to students' cognitive development level and guide students to gradually understand and master English knowledge.

Specifically, the curriculum can be designed from the following aspects:

1. Pay attention to the interests and needs of students.

English teaching should take students' needs and interests as the starting point, and design teaching contents and tasks in line with students' age and learning level.

For example, in junior high school, students are interested in life and social topics, and comprehensive tasks of listening, speaking, reading and writing can be designed to improve students' ability to use English.

2. Emphasize the practicability of English learning.

English education should be combined with students' real life and learning needs, and pay attention to the application of English knowledge and skills in real life and workplace.

For example, in high school, tasks involving academic writing, English reports and speeches can be designed to improve students' learning and workplace application skills.

3. Establish knowledge accumulation and progressive learning.

English teaching should go from shallow to deep and gradually establish knowledge relevance so that students can learn deeply on the basis of necessary premise knowledge.

For example, when learning English grammar and sentence patterns, we can first focus on intermediate English knowledge, and then gradually go deep into advanced knowledge and language application.

At the same time, in teaching, students should be guided to form a knowledge system, establish concepts and cognitive models, and improve their ability of information processing and induction.

4.2 Teaching methods

In the practice of English education based on Piaget's cognitive development theory, teaching methods should not only guide students to explore their own cognitive abilities, but also create appropriate situations to promote students' cognitive development.

Specifically, teaching methods can be carried out from the following aspects:

1. Emphasize students' experiences and discoveries.

In teaching, we should pay attention to guiding students to explore their own cognitive ability and encourage students to find and solve problems in the process of learning.

For example, English communication scenarios can be designed in class to let students solve communication problems and stimulate their English expression ability.

Establish the thinking model of mind map and problem solving.

In the process of English learning, students should establish a thinking model of mind mapping and problem solving, which can not only effectively integrate English knowledge, but also improve students' ability of induction and reasoning.

For example, when learning English vocabulary and grammar, students can organize their own mind maps, form a knowledge system, and improve their ability to integrate and apply English knowledge.

2. Carry out English teaching according to teenagers' thinking and cognitive ability.

In English teaching, if the learning process is advanced to the "language framework" earlier, it will make students fall into passivity when meeting the requirements of teachers.

In order to help students master English further, educators need to carry out English teaching according to the law of cognitive development of teenagers.

In order to provide more comprehensive and systematic support in English learning, teachers should start with students' common sense and experience, and teaching should design teaching contents with different degrees of difficulty according to students at different stages of cognitive development.

Examples are as follows:

Classroom design ideas: Time Unit 1 gesture, verb usage, context, draw actions (nerd face or smiling face, etc.), find instructions, reasonably complete the experiment 30min Unit 2 pre-similar vocabulary identification, sum up verb past tense, learn the usage of time and interrogative words, adjectives, descriptive semantics, activity thinking form 30min Unit 3 find out the subject and predicate verbs in the textbook, confirm and modify nouns and verb actions.

Master the two emotions of tension and relaxation, as well as the concept of air molecules 30min.

3. Encourage students to actively participate in English teaching.

In the process of English teaching, educators should make students participate more actively and have a more sense of control, which is very important for students to inspire thinking and cultivate interest in learning, and at the same time enhance students' memory of English.

At the same time, encourage students to cooperate in learning and help each other, so that students can learn better in the process of interaction.

Create situations and experiential learning.

In English teaching, situations and cases suitable for students' cognitive development should be designed to enable students to learn in experience and communicate in situations.

For example, when learning British culture, students can be organized to visit British museums and explain cultural history, so that students can understand British culture in practical experience. In the process of teaching, educators can divide the classroom into many forms, such as game form, space reorganization and students' "equipment" after class.

These forms can stimulate students' interest and motivation and make them become the protagonists of learning.

For example, some game elements can be added to teaching to allow students to learn English through competitions, or to launch some works that allow students to organize their own classes to understand the achievements of sensory objects or that can only be queried in dictionaries, so that they can learn English more freely and purposefully.

4. Pay attention to students' individual differences and carry out personalized English teaching.

Teenagers have great differences in personality, including scores, learning experience and personality.

Therefore, in English teaching, we should pay close attention to students' personality differences and carry out personalized teaching.

Educators should provide special education and support according to the differences of different students.

In the teaching of educators, we can explore different teaching methods and strategies to meet the needs of different students.

Can also carry on the differential design in the language expression, lets the student choose the expression way which they like, and provides the relevant background knowledge.

In addition, students can be encouraged to inspire students by conducting some searches, broadcasting learning videos on guided, and carrying out small language tasks.

4.3 Evaluation method

In the practice of English education based on Piaget's cognitive development theory, evaluation methods should reflect students' cognitive development level and English comprehensive ability.

Specifically, it can be evaluated from the following aspects:

1. Emphasize students' self-evaluation and self-reflection.

In the process of English learning, students should establish a mechanism of self-evaluation and self-reflection in order to find problems and solve them in time.

For example, in English listening and speaking training, students should be allowed to evaluate their own performance, find out the problems and seek ways to improve them.

2. Pay attention to English application and situational communication.

In English teaching, evaluation methods should not simply examine the mastery of grammar and vocabulary, but should focus on students' English application and situational communication ability.

For example, in the evaluation of English writing, we should pay more attention to language fluency and expression effect, rather than mechanically picking words and sentences.

3. Attach importance to students' cognitive development level and personality.

In English evaluation, students' cognitive development level and personality characteristics should be taken into account and diversified evaluation methods should be adopted.

For example, English evaluation can be conducted by citing four comprehensive evaluation systems of listening, speaking, reading and writing, homework and project evaluation, and group mutual evaluation.

5. Case Analysis of Teaching practice

Taking the English unit of junior middle school as an example, this paper establishes the practice of English education in accordance with Piaget's theory of cognitive development.

5.1 Curriculum Design

The main contents are as follows: (1) according to students' interests and needs, select topics such as life, games, tourism and so on, and design corresponding listening, speaking, reading and writing tasks to improve students' English application ability.

(2) in the aspect of learning vocabulary and grammar, we should design progressive learning tasks, establish knowledge system and mind map, and improve students' ability of knowledge application and induction.

5.2 Teaching methods

The main results are as follows: (1) in the learning task of listening, speaking, reading and writing, the real communicative context is used as the situational design to promote students' situational communication and improve their English ability.

(2) in teaching, we should pay attention to students' experience and discovery, take problem-solving as the center, let students solve problems independently, and improve students' learning motivation and autonomous learning ability.

5.3 Evaluation method

The main results are as follows: (1) after the end of English unit learning, pay attention to the evaluation of students' English application ability, and adopt the comprehensive evaluation model of listening, speaking, reading and writing to evaluate students' English application and situational communication ability.

(2) in the evaluation, not only pay attention to the language skills, but also pay attention to the students' cognitive development level, using a variety of evaluation methods for evaluation.

6. Conclusion

In a word, the English education practice based on Piaget's cognitive development theory, focusing on students' cognitive development and the improvement of their English application ability, can more effectively promote students' English learning and development and improve their English proficiency and ability.

Piaget's theory of cognitive development promotes people's understanding of the development process of human cognitive ability, which is very important for educators to deal with the teaching of teenagers.

As teenagers experience various cognitive changes, teachers' teaching structure must be consistent with the level of students' cognitive development.

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