Training on Innovative Thinking Ability in College English Teaching under Information Technology Environment

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Abstract: Information technology provides a new development space for college English teaching. It studies the innovative thinking ability of college English teaching under the information technology environment, which meets the needs of the information age and contributes to the reform of college English teaching. This thesis is based on innovative thinking theory, educational psychology theory, second language acquisition theory and situational cognitive learning theory. It analyzes college English teaching plan, curriculum system, teaching organization, information environment, teaching evaluation, campus atmosphere, learning style and quality of teachers; put forward countermeasures for cultivating innovative thinking ability of college English teaching in information technology environment: using information technology to create innovative situations; carrying out inspiring teaching, guiding reverse thinking; improving teaching evaluation and encouraging innovation thinking; expanding student thinking and stimulating thirst for knowledge.

1. Introduction

Innovative thinking is the ability to use new knowledge and experience to open up new areas of thinking, that is, pursue the best and the latest knowledge in the field of thinking. The essence of innovative thinking is to raise the perceptual desire of innovation consciousness to the exploration of rationality, and realize the leap of rational thinking by perceptual recognition. With the development of the time, the traditional ideas of sticking to the rules and self-restraint have become obstacles to the development of science and technology. Innovative thinking has injected infinite vitality into the spring of individual and even national development. With innovative thinking, you have a flexible mind and endless creativity. Language is the external manifestation of thinking, and thinking is the expression of language. As part of thinking activities, creative thinking is inextricably linked to language and language learning.

English subject has its own independent knowledge system, which is different from other subjects in ability formation and knowledge application. The unification of instrumentality and humanity is the basic feature of this subject. Instrumentality is reflected in language skills such as "listening, speaking, reading, writing and translating", and humanity is a fundamental attribute. Because English learning can expand the way of thinking, reorganize values, and reshape the personality structure, including innovative thinking, independence and cooperation with others, it will help students improve their quality. English teaching content covers social, economic, scientific, historical and cultural aspects, reflecting different customs and ways of thinking. It is this difference that provides environment and object of thinking for innovative thinking. Because students can break through the shackles of the single language and culture by touching different expressions and values, it is easier to treat problems and analyze problems from other angles, which is conducive to cultivation of innovative thinking.

Information technology provides a new development space for college English teaching. It is of great significance to study the innovative thinking ability of college English teaching under the information technology environment. First, cultivating innovative thinking is the need of the information age. Innovation is the soul of a nation's progress. Without innovation, there is no social

development. Innovative thinking is the capital of college students based on the world, the foundation for maintaining their own creativity, and the basic quality that must be possessed in the information age. Second, cultivating innovative thinking is an important task of English education. Language is the carrier of knowledge, culture and thoughts. Through English teaching, students can fully understand cultural connotation, appreciate language charm, experience different ways of thinking, and promote the all-round development of students' thinking, especially in language thinking, which is closely related to the core of language education. Third, helping the reform of college English teaching. Education informatization has realized a variety of teaching methods, and there are still many problems in the specific implementation. This topic develops relevant strategies to construct simulation scenarios of interest to students, making information technology the main carrier of college English learning and training, and ensuring the effective implementation of college English teaching.

2. Theoretical Basis on Training of Innovative Thinking Ability in College English Teaching under Information Technology Environment

This paper is based on innovative thinking theory, educational psychology theory, second language acquisition theory and situational cognitive learning theory, as follows:

(1) Innovative thinking theory. Innovative thinking is the core of the intellectual structure of innovative talents. It is the highest form of human thinking developed on the basis of general thinking. It is "the subject breaks through traditional thinking habits and logical rules on the basis of certain theoretical knowledge and practical experience. Muti-dimension thinking produces a new, unique, socially valuable way of thinking." The essence of innovative thinking is to raise the perceptual desire of innovation consciousness to the exploration of rationality, and realize the leap of rational thinking by perceptual recognition of rational thinking. Factors that influence the development of innovative thinking include the external environment of the family, school, and society, as well as internal factors such as divergence, association, imagination, intuition, and inspiration.

(2) Educational psychology theory. Educational psychology is the study of the effects of human learning, educational intervention and teaching psychology in the context of education, and the social psychology of school organization. The focus of educational psychology is to apply the results of psychological theory research to education. Educational psychology can be applied to designing courses, improving teaching methods, promoting learning motivation, and helping students face difficulties and challenges in their growth. Educational psychology helps teachers to understand students in depth and improve the pertinence of education and teaching. Learning educational psychology can more deeply understand the psychological basis of teaching measures, more actively control teaching methods and educational means, enrich the teaching art, and comprehensively improve the quality of teaching.

(3) Second language acquisition theory. With the development of internationalization, it is especially important to cultivate a combination of international and professional talents with two or more languages. It is not only the need of social development, but also the need for talents to improve themselves. Second language acquisition means that people acquire a language other than their mother tongue in a certain way, which is different from the natural acquisition of the mother tongue. In recent years, the study of second language acquisition has made significant progress, mainly focusing on the following topics: mother tongue and second language acquisition, language input and second language acquisition, universal grammar theory and second language acquisition, personal differences and second language acquisition. , as well as classroom teaching and second language acquisition. Based on the theory of second language acquisition and using information technology, this paper explores the creation of a good learning atmosphere for students and stimulates their interest in learning.

(4) Foreign language innovation education theory. English and Chinese respectively reflect different ways of thinking. Learning English can help students to have a deeper understanding of Western civilization, open up their minds, broaden their horizons, and encourage students to think

about problems from different angles, inspire students' thinking, and cultivate the quality of critical thinking. English learning is the challenge to Chinese thinking and the useful supplement. The quality of critical thinking promotes the correct use of English by students, improves the logic, rigor and organization of English expression, and achieves the purpose of effective communication. Foreign language education should take the road of innovative education and innovative quality, use foreign language course carriers, carry out foreign language innovation education, develop students' divergent thinking, and cultivate students' innovative thinking quality and skills.

3. Problems Analysis on Training of Innovative Thinking Ability in College English Teaching under Information Technology Environment

Analyze the problems existing in the cultivation of innovative thinking ability of college English teaching under the information technology environment, and the causes of the problems. The analysis content is shown in Fig.1.
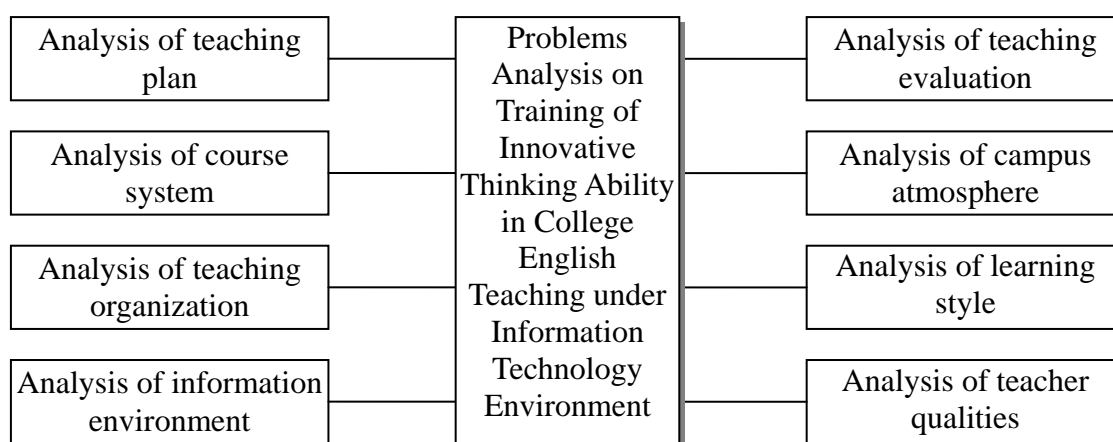

Fig. 1. Problems Analysis Content on Training of Innovative Thinking Ability
in College English Teaching under Information Technology Environment

A brief analysis of the problem shown in Fig.1 is as follows:

First, Analysis of teaching plan. Teaching plan is a guidance document for teaching and educational work based on a certain educational purpose and training objectives. At present, the college English teaching plan model is single, failing to fully consider the the differences between conditions of operating a school, the foundation of operating a school and students, can not play a positive role in promoting the cultivation of students' innovative thinking.

Second, Analysis of course system. The curriculum system refers to the different classes of the same profession in the order of the categories, which is the sum of the teaching content and process. The order of the courses determines the knowledge structure that students will acquire through learning. The current college English curriculum system has not been able to scientifically design relevant courses in accordance with the current state of students' thinking.

Third, Analysis of teaching organization. Teaching organization refers to the structure in which teachers and students combine activities according to certain requirements in order to complete specific teaching tasks. At present, college English teaching generally adopts the lecture method, that is, the teacher imparts knowledge to the students through oral language. The students are in a passive learning state and lack the motivation of innovative thinking.

Fourth, Analysis of information environment. The information-based teaching environment is a combination of many objective conditions and forces that can be realized under the guidance of modern educational theory and fully utilized modern information technology to realize informatization teaching activities. The current information environment of college English teaching is mainly multimedia classrooms and language labs, lacking comprehensive network teaching platform and various management software.

Fifth, Analysis of teaching evaluation. Teaching evaluation is an activity that judges the teaching process and results according to the teaching objectives and serves the teaching decision-making. It is a process of judging the actual or potential value of the teaching activities. At present, college English teaching is mainly based on summative evaluation, and lacks comprehensive evaluation of students' development process.

Sixth, Analysis of campus atmosphere. In the process of cultivating students' innovative thinking, colleges and universities ignore the guiding role of campus culture atmosphere on innovative ideas. At present, the innovative concept in the campus culture atmosphere is not prominent, the way of thinking is not active, and the key point of innovative thinking is innovation. Students lack innovative ideas and innovative initiatives are not strong.

Seventh, Analysis of learning style. Learning style refers to the behavioral way and behavioral characteristics of individuals who exhibit preference behaviors during their learning activities. "Teachers teach, students record" is a passively accepted learning method. There are not many opportunities for discussion. It is a waiting-type cognitive style and learning habits, which leads to the failure to cultivate innovative thinking.

Eighth, Analysis of teacher qualities. Teacher quality refers to the basic quality or basic conditions for successful educational activities. As a teacher who undertakes the responsibility of educating people, we should adopt various methods to cultivate students' innovative thinking and consciously position the educational goal of college English in the cultivation of innovative thinking. However, the innovative thinking of college English teachers is generally lacking.

4. Counter Measures on Training of Innovative Thinking Ability in College English Teaching under Information Technology Environment

Innovative talent training is a strategic choice for colleges and universities to deepen the reform of education and teaching. Cultivating students' innovative thinking is the core content of innovative talent training. Information technology provides a new teaching mode for college English teaching, and has unique advantages for students' innovative thinking training. This paper proposes training strategies from multiple angles to serve the college English teaching and the cultivation of students' innovative thinking ability in the information age.

(1) Using information technology, create innovative situations. Situational teaching is a teaching method based on the creation of teaching materials, the image as the main body, the emotional scene and atmosphere, which stimulates students' learning emotions and guides students to understand and use language as a whole. The situation in English is a kind of life scene, which can not only activate the classroom atmosphere, stimulate interest in learning, exercise students' language ability, but also cultivate students' thinking ability and imagination ability, and gradually develop good habits of thinking in English. The application of information technology in college English teaching shows students a new teaching situation. It can not only display text, image, video and audio to display various knowledge backgrounds, but also break the time and space restrictions and bring students into virtual world.

(2) Inspire teaching, guide reverse thinking. Reverse thinking refers to the way to solve problems in reverse thinking that are difficult to solve with innovation or conventional ideas. Reverse thinking is an important manifestation of innovative thinking. It can easily overcome the constraints of rigid ideas and obtain the best methods and ways in many problem-solving methods. In real life, if you adopt a habitual way of thinking, you will often get stuck. The reverse thinking has opened up different directions, which makes people jump out of the original thinking framework and go deeper. The in-depth study from the opposite side often has unexpected effects. Reverse thinking combines opposition, risk and novelty, which can better stimulate students' interest in English learning.

(3) Improve teaching evaluation, encourage innovative thinking. American course theory expert D.L. Stufflebeam pointed out that the most important intention of evaluation is not to prove, but to improve. Teaching evaluation has an stimulating and guiding role and has the dual function of promoting student development and teacher growth. Teachers should make positive comments on

students' learning behaviors and learning outcomes, and encourage students to think creatively. Information technology provides an effective mean for reforming teaching evaluation. In the evaluation, pay attention to the encouraging role of evaluation, objective, fair, enthusiastic and sincere, meet the psychological needs of students. Carry out encouraging evaluation, encourage students to be whimsical and unconventional; carry out hierarchical evaluation, different levels of students, set different requirements, and conduct hierarchical evaluation guidance. Teachers affirm students with trust and encouragement, respect, understand and tolerate students and encourage students' creative thinking.

(4) Expand students' thinking, stimulate desire for knowledge. Stimulating students' curiosity and thirst of knowledge is the main link in developing innovative thinking skills. There are three factors that affect people's ability to innovate: first, the consciousness of innovation; second, the ability to innovate thinking; third, the mastery of various innovative methods and problem-solving strategies. Inspiring curiosity and thirst of knowledge is the driving force for cultivating innovative consciousness, improving creative thinking ability, and mastering creative methods and strategies. In the process of college English teaching, taking full advantage of the advantages of modern information technology, teachers continue to improve their teaching level, while integrating information technology and advanced scientific and technological means into classroom teaching, using information technology to stimulate students' curiosity, with the help of the network teaching resources enable students to actively participate in teaching practice.

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