Quality Education and Teaching of College Computer Basic Course

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Abstract. Carrying out quality education is an important method to improve all-around development of college students. College computer basic course contains many knowledge points that are good for improving quality of college students. Doing the good job of "teaching of college computer basic course of university" can cultivate innovative thinking of college students, and promote aesthetic ability, music accomplishment and ethnic quality, as well as development of other subjects.

Keywords: quality education, college computer basic course, teaching.

1. Introduction

During one's growing process, quality plays a key role in the development of people and contribution to the society. [1] For a long time, teacher's unidirectional giving knowledge to students in higher education ignores students' active participation during the process of education, which is not good for improving quality of college students. [2] "College computer basic course" is the compulsory basic curriculum for students of each major in undergraduate courses. Doing the good job of teaching of "college computer basic course" can cultivate students ability and consciousness of problem solving by computer in all professional fields, further to learn and study in all specialized courses, improve thinking quality and ability and the comprehensive quality of students.

2. Understanding about Quality Education

Since 1960s, the voice related to quality education reform has been growing gradually in some countries of the world, which carry out teaching reform with the theme familiar with quality education. Clinton, the former US president proposed in education program: "cultivate the generation with the sense of responsibility"; German scholar presented that an important category of German education reform is that the school should not only spread knowledge but also care about morality and character development of students; Japan regarded "broad mind, healthy body, rich creativity, free and self-discipline spirit" as its education goal for 21st century; Singapore put forward to implementing "talent development plan concerning sentiment education". [3]

In general, advocating quality education is the inevitable result of inside and outside university, history and reality combined action. As it can unify both basic educations function of personal development and social development, from regulation and theoretical height, the effort of quality education is to make the relationship between inside and outside education harmonious and interactive.

3. Positive Functions to Improve Quality of College Students of Teaching of "College Computer Basic Course"

3.1 Contributing to Cultivate Innovation Thinking of Students

To learn systematically and roundly current mobile network's effects on study and life of college students, take college students as objects, involve majors of science, engineering, the science of law, arts etc, which has certain pertinence and reference.

Cultivate creative thinking of students. The most outstanding character of creative thinking is to provide novel, original and valuable thinking results. The former teaching always inculcates student

in intellectual content, while ignores to cultivate creative thinking. Of course, at the time of trying to solve problems, write, paint etc., students can also feel pleasure of creativity. However, nothing can compare to creativity and sense of achievement showed by conventional thinking that program design brings. The reason of this feeling is that program design can abandon conventional thinking model that is formed in former mathematical teaching. It gives students feeling of freshness, which can motivate creative desire of students.

Develop abstract thinking of students. Program design of teaching of college computer basic course is based on abstract. To solve the problem of solving program design, firstly the appropriate computing method should be considered, then through analyzing and studying the problems, generalize general rule, and describe by computer language. The process of describing this rule is a highly abstract process. Program design uses largely thinking methods towards guessing, generalizing, reasoning etc. It is not hard to imagine that the abstract thinking ability of one person that is accustomed to program is far superior to one that is not able to programming.

Optimizing thinking quality of students. Computer is a course with strong operability. The students will form intense concentration by connecting hands, eyes, hearts and mind when operating computers, which will form forceful excitement in cerebral cortex, and make all knowledge efficient and internalized. During the process of learning computer language, through operating computers, the students' experience all commands function, analyze operating process of programs, test and feedback timely operating result, which can easily produce a sense of achievement and motivate thirst for knowledge so as to cultivate the ability of daring enterprising and isolated exploring. What's more, due to high automation and sequencing of computer operation, the well-disciplined attitude is necessary; otherwise, a little negligence can cause mistakes and shut down. Debugging program is actually a process of exercising thinking and tempering will. Therefore, studying computer is a self-discipline process of cultivating will, thought and perseverance.

3.2 Promoting Aesthetic Quality of Students

According to the results of research and survey, there are 7 questions to be prepared in the questionnaire, including not only survey of network use behaviors of college students, but also survey of college students' habit and policy management, which has certain integrity. The survey focuses on mainly all grades of colleges, during which 600 questionnaires are given out, and 562 papers are returned. There are 540 valid questionnaires and the valid returned rate is 90%.

Aesthetics is the point particularly advocated in quality education, the ancient Greek philosopher, Plato said," for the highest elements of happiness, healthy is the first and beauty is the second." With correct esthetic sentiment and value is a sign for modern society civilization and progress, and also is the requirement of new times for every qualified talent. [4] Still picture experiment is the important content of "Multi-media" in "Basis of Computer Engineering" teaching material. By teachers' consciously selection of image material, showing of the beautiful landscape scenery and sophisticated folk custom and conditions of the people can give rise to students' emotional resonance and motivate them to love nature, love our motherland and people. What's more, Some world famous paintings with social theme can be chosen as image experiment materials, such as "The Boat Tracker on Volga River" of Repin, etc., among which the strong color that possesses symbolic meaning and the heavy images of boat trackers makes students deeply feel pain and misfortune of laboring people who are at the lowest level of the social ladders and gives rise to their sympathy, and possesses full of infection. This leavening influence has good guiding function for the currently selfish, extreme unhealthy psychological states of few only child who was born after 1980s and 1990s. Similar static state vision pictures' demonstration and experiment unconsciously trigger students' deeply thinking on social phenomenon when they are studying computer picture knowledge, and they will contribute them to be citizens with profound sense of social responsibility.

3.3 Promoting Music Accomplishment

Music education is another main content and way to implement aesthetic education. It has unique educational functions, and it not only can't be replaced by morality, knowledge and physical education, but also can supplement each other with them. [5] Audio knowledge such as teacher's

explanation mp3, wav, and mid etc., providing abundant excellent music compositions with pedagogical meaning as audio experiment material by introducing frequency, wavelength, sound track and other specific technical index can develop human being's left and right brain in balance, motivate and cultivate their creativity, purify and sublimate their mental shackles, cultivate correct value, view of life, infuse vitality and passion for the comprehensive study and life, and produce particular positive effect for the formation and improvement of comprehensive quality.

3.4 Promoting Moral Accomplishment

For a person, loving his country is always one of the most important virtues and the most basic qualities. By introducing the content of computer's development history, teachers make students know more about the extremely hard, bitter and excellent development history of computer in our country, especially the brilliant achievements in recent years. For instances, in 1958, the first evacuated tube computer was born in China; in 1983, the giant-scale computer of Milky Way 1 came out and its operation speed reached at 100 million per second; in 2002, "operation" CPU chip which possessed proprietary intellectual property rights was born, etc. These not only motivate students' patriotism but make them easily to acquire psychological identification to school and to the course of "Basis of Computer Engineering" during school days. Besides, it is a good acceleration for studying other courses and even for the whole college life.

3.5 Promoting Other Subjects' Development

As a modernization education which faces the future, computer education absolutely not just stays at grasping basic knowledge and basic operation, but pays attention to cultivating students to analyze and solve problems by modern tools and methods, and then develop their logical thinking ability. In contrast, acting as intellectual gymnastics, math plays a vitally important function in aspect of cultivating students' logical thinking ability. Because of mathematical content is too stale and its basis is too dignified, then these cause that students can't know a small piece of modern mathematics and appreciate its charm from primary school until to middle school. However, computer science takes advantage of ultramodern science and technology means and the most modern methods to study new and old problems, which just act as the supplement and improvement of math education, and it will draw math educational world's eyes and promote reform of math education. On one hand, basis of computer engineering education makes students learn computer knowledge; on the other hand, it helps them to learn other subject knowledge by operating computers using the learned knowledge. Some excellent assistant courseware can increase students' learning interests, optimize problem solving strategy, exploit their mind and at the same time, it has good effects in practice and application.

4. Conclusion

Computer course which combines theory and practice has strong operability, it makes people see the dawn of quality education among numerous barriers of examination-oriented education system, makes basic education which seriously breaks away from reality find support point close to reality, and also offers a delicacy for primary and middle school education which always lays their stress on cultivating students' thinking quality. On a long view, it can increase students' future job selection opportunities, improve their future viability, promote development of our high and new technology and make our country to be a scientific and technological power.

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