### Research on Computer Education Teaching Reform Based on Network Teaching Mode

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**Keywords:** Network Teaching; Computer Education; Reform

**Abstract:** Nowadays, computers have become an indispensable tool in people's lives, and as a popular course in universities, it also has received attention from all sectors of education. This paper expounds the problems existing in computer teaching in universities, which is the basis of providing a new reform strategy for computer education teaching in the information network era teaching mode.

As a basic subject of college courses, computer course plays an important role in contemporary university students, effectively cultivating university students' mastery of the basic skills of computers at this stage, so as to adapt the students to the development of social information technology. However, there are many problems in the current computer education teaching in universities of China, such as the quality of content and mode of teaching. Therefore, regarding the global informationization wave as the starting point for the reform of computer education in universities, we should make the teaching model self-innovated, change its traditional education mode, and finally explore a teaching method suitable for network information technology.

### 1. The Current Problems in Computer Teaching in Colleges and Universities

### 1.1 Backward Teaching Content Being Unable to Stimulate the Interests of College students

We are living in the rapid development period of information technology that is changing with each passing day, daunting people. However, at this stage, computer teaching in universities is lagging behind. Many versions of computer textbooks in learning remain the same as a few years ago, resulting in relatively backward technology information that university students access to. Unable to exposure to new technology leads to students learning initiative decreasing and learning interests losing, Meanwhile, when talking about computer courses, many university students deny its practicality.

# 1.2 The Computer Education Model Being More Traditional, Out of Touch With the Actual Operation.

In fact, if students have a great interest in the beginning of the computer course and the teachers flexibly use computer course, students' emotion will be simulated so that they can work harder to learn computer course. However, the computer education teaching in universities is more traditional

in the education mode, gradually losing its attraction for students. Large classroom teaching is the most important teaching mode of computer course in universities with one teacher and more than 100 students, where the teacher finishes the teaching mainly according to textbook, and many students are drowsy without interests. This traditional mode of teaching lacks the actual operation of students, and it's obvious that the teaching quality cannot be guaranteed. In the practice of the course, there will be many phenomena such as overlarge number of students, the disconnection between the theory and practice courses and so on, which will eventually make the teaching practice become formalism.

### 1.3 Students Failing in Having Enthusiasm in Learning for Teaching Curriculum Boring

Due to the tedium of computer course, many students lose interests when they encounter difficulties, which makes them less motivated to learn. Computer technology is more complicated in the study of computer course. Curriculum's not interesting results from many computer teachers have little responsibility, just finishing the teaching according to teaching task rather than further researching the content of the course. They not only neglect the quality of teaching, but also lack responsibility. So they don't develop teaching model suitable for students for not further researching computer course

## 2. Taking the Computer Teaching Reform in Universities As the New Direction of Teaching Model Development.

# 2.1 Multidisciplinary Integration Development As A Large Curriculum System of Scientific and Rational Development

At this stage, the demand for compound talents in China has increased over time. According to research, during the "13th Five-Year Plan" period, the compound talents in China's computer industry have a gap of more than 10 million. In recent years, the curriculum system of computers is not diversified and practical operability is not coherent, which have no effect on the current university students and the research and work in the IT industry. Therefore, the large curriculum system is used as the basis of teaching to introduce cross-integration learning of multi-disciplinary, especially in the process of practice, such as study of Matlab and mathematical modeling, CAD and 3D design, with corresponding software and technology as its guiding content to form a special curriculum. Through the study of these courses, students broaden their horizons and gain more knowledge in the computer field. The professional knowledge that students learn in this study will be mutually integrated and complemented, laying a solid foundation for future work.

# **2.2** Effective Combination of High-Tech and Computer Education with Application Level of Informatization Teaching Methods Effectively Improved

As emergence of Internet high-tech is endless, the reform of computer education in universities has been effectively developed, which provides new opportunities for computer education teaching courses. At this stage, universities are still not flexible in the use of advanced technology. They still use traditional methods for education teaching, with old teaching concept, traditional method and equipment not updated over time. Therefore, some advanced information technologies should be he introduced into universities, and advanced facilities and equipment should be used for computer education and teaching, so that university students can understand the cutting-edge technology through the understanding of advanced information technology, thus making it a new reform direction of computer education teaching..

### 3. Reform Exploring of Computer Education Teaching Based on Network Teaching

Nowadays, China's informatization has entered a rapid development period. The popularity of computers has also changed the production and life of the masses, so its importance is self-evident, which requires university students to have certain computer skills in order to become useful to society. Therefore, there is a higher demand for college education in universities. The proficiency of computer technology and the flexible use of advanced computers have become an important standard for university students to use computers.

# 3.1 Focusing on Creative Education with Guiding Computer Education Teaching in Universities based on the Concept of New Curriculum Teaching

At this stage, China's education teaching has great changes. The development of society and services are inseparable from the education of universities. In today's informationization background, the development of society has advanced by leaps and bounds, and traditional teaching has no longer met the needs of students and society. Of course, this is also because traditional education prefers to training professional knowledge talents, neglecting cultivation of students' ability and consciousness of innovation, which runs counter to the education concept of university students' comprehensive development. Taking social development as its premise, we should make computer education teaching adapt to it, change the status quo of learning that focuses on knowledge in education teaching, and cultivate the innovative consciousness of university students. Computer teachers should be in line with the times, launch new computer education and teaching, learn new educational concepts, and use this as a basis to guide their education teaching. Therefore, the computer professional teachers in universities take quality education, innovative education and lifelong education as the main educational concepts, and promote the national quality as the main purpose, aiming at all university students and improving the basic quality of their students, in order to cultivate students' innovative spirit. The new curriculum reform should be fully implemented in computer classroom teaching. While knowledge is imparted, students' innovative education should also be focused to ultimately realize the lifelong education concept of university students.

# 3.2 Defining the Gap between College Students' Learning, and Carrying out Effective Education Based on All College Students

The teaching reform of new computer course in universities focuses on students-centered teaching and teachers should recognize the differences in learning between students, promoting the all-round development of university students in the process of professional education teaching. Under the traditional concept of education teaching, the individual differences between students will not be noticed. Traditional education teaching centers on top students rather than students with ordinary grades. As a result, in the process of class teaching, the teachers do not pay attention to the latter, who will gradually lose learning interests, students with learning difficulties appearing accordingly. The new curriculum education focuses on the development of all university students, emphasizing the comprehensiveness of students and recognizing the differences between them. In the process of education teaching, teachers should not only pay attention to the development of their excellent students, but also to the performance of students with lower grades. Teachers should make different teaching requirements according to different students, and enable each student get the satisfaction of learning with different teaching objectives, so as to mobilize the enthusiasm of students to learn and promote the comprehensive development of university students. In the teaching process of computer teachers in universities, the gaps in students due to genetic or different learning levels should be accepted. Therefore, it is necessary to have a targeted teaching mode. In terms of the different levels of knowledge, learning attitude and learning potential, all university students are divided into different levels. In the process of teaching, teachers should combine with the characteristics of their students to carry out targeted education in different learning objectives and learning requirements. They root the concept of teaching students in accordance with their aptitudes into their heart, the enthusiasm of students to learn will be greatly improved. Thus university students in this study achieve better development, and their self-confidence of learning will also be effectively cultivated.

### 3.3 Arousing Learning Initiative of College Students by Teachers to Play the Role of Leading

The concept of new computer curriculum in universities is that students are the main body of the classroom, while the computer professional teachers are the leaders of classroom teaching. In the process of classroom teaching, teachers should play their leading roles to the best, actively mobilize students' learning initiative, guiding them to learn independently. University students' study should give priority to independent learning, in order to cultivate students' innovative ability and spirit. University students should be provided with various opportunities to actively participate in activities as a prerequisite to stimulate their learning potential. Therefore, University computer teachers should actively change the teaching ideas, taking students' interests in learning as a condition, carrying out teaching activities according to various interests, so that students' enthusiasm can be better mobilized and they make fun of computer learning, and then participate in teaching activities, thus active learning desire being stimulated.

# 3.4 Conducting Group-to-Group Learning In a Cooperative Learning Manner and Reducing Counseling Pressure of Students

The subjective characteristics of computer course in university are based on operational exercises, for which university students need to practice more. In the course of the operation, students will encounter a lot of problems, not solved in time, they will discourage the students. In order to solve this learning problem, university students can learn in groups to collaborate. Therefore, the top students can get better development space, and the students with lower grades can also receive targeted help. This greatly reduces the counseling pressure of computer teachers in universities, which makes the best of both worlds.

### 4. Conclusion

All in all, in order to improve the teaching efficiency of computer education in universities, teachers need to take students as the main body of learning, stimulate students' learning interests, and enable students to generate active learning desires in the process of learning to deeply explore their computer courses.

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