

The First Exploration on Basic Education Reform of University Computer

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Abstract: With the development of society, the demand for comprehensive talents of computer technology in all walks of life is increasing, and the basic computer education mode and teaching content of traditional college have been difficult to meet the needs of the development of students, also can't satisfy students' thirst for computer knowledge, and the teaching effect and teaching quality are deficient. Therefore, it is imperative to strengthen the basic computer education of universities. Fundamentally improving the level of the students' computer, changing the traditional teaching method and teaching content, blending in the innovative teaching ideas, reforming and innovating the basic computer teaching, are the main tasks of China's basic computer education in colleges and universities in the next moment. This paper discusses the problems existing in basic computer teaching in universities, and puts forward the reform contents of basic computer education, and hopes to further promote the development of basic computer education in China.

Keywords: Basic computer education; Teaching method; Teaching reform;

Fund Project: Numerical Simulation Study of Dynamic Evolution Process of Nonlinear Resistance Wall Model, ZR2016AM30.

DOI: <http://dx.doi.org/10.26549/jetm.v1i1.571>

1. Introduction

With the wide application of computer technology in all walks of life in China, mastering certain computer technology has become one of the standards of social talents. However, at present, the technology mastered by some graduates of our country has difficulty in meeting the needs of the development of enterprises, and it is difficult to meet the needs of social development. The development of information technology has entered a period of rapid development. In order to further accelerate the development of informationization, it has become the main task of Chinese universities to cultivate professional talents with high professional level and comprehensive ability, and the computer education has become the main method for improving their comprehensive abilities. To reform the basic computer education, the basic computer education of universities shall be of high standard and strict demand, combined with innovative teaching ideas and methods, with improving students'

practical abilities, comprehensive qualities and personalized development as its main purpose.

2. At Present, the Current Situation of Basic Computer Education in Colleges and Universities in China

The development of computer technology has entered a period of rapid development, and the application of computer technology in all walks of life has been very common, Chinese society has also entered the development trend of networking, intellectualization and multi-media. In order to adapt to this change, colleges and universities shall reform the computer teaching and effectively improve students' computer abilities and practical abilities. Students are the future of our country, so strengthening the students' computer operation ability is the main teaching task of universities. Nowadays, it has become an important factor of the recruitment standards of enterprises to reviewing the computer abilities of students. Only when

students have mastered higher computer skills and can apply them effectively, can they promote social development. Therefore, cultivating computer talents with strong professional skills and comprehensive ability has become the major task of colleges and universities. Basic computer education also plays a very important role in different professional education.

3. Problems in College Basic Computer Education

3.1 There is a Great Difference among Students in the Computer Abilities

In recent years, due to the further expansion of college enrollment, the number of students in colleges and universities soared. Some of these students have strong computer skills and high levels of knowledge; others, on the other hand, have very little exposure to computers and have little knowledge of computers and find it hard to understand. In addition, different majors in colleges and universities have different requirements and standards for computers. The "sweeping approach" used in colleges and universities is obviously not suitable for all students. Therefore, the reform of basic computer education in colleges and universities is imperative. How to formulate a new way of education that suits the actual situation of students, meets the needs of social development, enhance the students' learning level and broaden the scope of students' study is the direction that computer teachers in colleges and universities shall focus on in the future.

3.2 Improper Use of Teaching Resources and Relatively Backward Teaching Methods

In the process of teaching public basic courses in colleges and universities, the teaching pressure on the teaching of computer basic courses is quite prominent. Due to the large number of students, the lack of teaching software and teaching hardware, many universities adopt a theory teaching mode, which is a big screen teaching mode. Although this teaching method solves the problem of many computer students and teaching difficulties, it also has some drawbacks^[1]. Specifically speaking, in the course of teaching, many teachers mainly demonstrate relevant courseware and explain the knowledge on the big screen, coupled with the large amount basic knowledge of computer, so many students take listening as the principal study method, and a lot of new knowledge is not fully understood and then they go on to the next level of knowledge, which makes students not familiar with some basic computer knowledge, and easy to forget. At the same time, the computer basic teaching materials are obsolete,

and the teaching content is stereotyped, and the students have less time to accumulate computer practice, so the teaching effect is less effective. In the computer experiment class, because of the large number of students, and because teachers cannot take into account all students, so the problem that students encountered in the classroom cannot be solved in time, which results in less effective quality of the overall learning.

3.3 Lack of Professional Computer Teachers in Colleges and Universities

At this stage, the computer professional teachers in basic teaching of many colleges and universities in China are still relatively insufficient, and many teachers working on basic computer teaching are mostly part-time. Due to the large workload and work tasks of part-time teachers, it is difficult for them to fully devote to the reform and research on basic computer teaching, which causes that some teachers jack of all trades, but master of none, lack reasonable teaching methods, and are relatively rigid and inflexible in the process of imparting knowledge. If the overall level of computer teaching staff is low, it will inevitably lead to backward teaching quality and teaching level.

3.4 Assessment Method is not Reasonable

At this stage, the computer-based assessment of colleges and universities in our country usually means the combination of theoretical written test and computer practice test. Although this assessment method can test the student's learning situation in the computer, it does not meet the needs of social development. Because the computer specialty has a strong practicality, the application will be focused on operation, supplemented by theoretical knowledge in the future, and this assessment way does apparently not meet the actual needs, which will cause students pay attention to theory, and neglect the practice.

4. The Related Reform of Basic Computer Education in Colleges and Universities

4.1 The Basic Computer Teaching Reform Based on MOOC Mode

"MOOC" teaching philosophy originated in Canada. Since 2011, a wave of online courses has been launched worldwide, which help the development of the teaching industry. The most important feature of MOOC teaching is that it has a strong openness, which makes use of internet technology and computer technology to share teaching resources. In this teaching mode, teachers can use some short videos to transmit on the internet. The video content is concise, allowing students to use their spare time

to fully learn the knowledge. And in the broadcast of the teaching video, teachers can set some small problems, and only exactly answering these questions, will the student be able to continue playing the video. This kind of teaching mode further increases the motivation of students to learn, which brings a certain degree of stimulation to the students' autonomous learning. In addition, a discussion area may be located below the teaching video. In the course of learning, students can have a free discussion here to strengthen the interaction, and the teachers also can further understand students' learning situation so that they can arrange the next teaching. Based on the basic computer education under MOOC teaching mode, teachers shall make corresponding changes from the following points: change the role of the teacher and change the role of the student^[2]. Changing the role of teachers mainly refers to transform the traditional teaching process, which is blindly guided by the teachers and the students are guided in teaching mode, to make students use the internet to autonomously study, which can further strengthen students' practical abilities, while the teacher's main responsibility is to monitor one side, analyze the learning status of students, to stimulate the potential of students; changing the role of students means that in the process of implementation of MOOC teaching mode, let the students become the masters of teaching activities, not just passively accepting the teacher's knowledge, and students themselves can use the internet to conduct autonomous learning, free choice of learning content, study time and place of study. Students and teachers use the MOOC platform to effectively communicate with each other. Students can obtain relevant certificates and credits through the platform's teaching process and related tests to enhance their enthusiasms for learning.

4.2 Basic Computer Teaching Reform Based on the Blending Teaching Model

The blending teaching model is also one of the choices of basic computer education in the reform process. Based on the computer basic course system, the blending teaching model is reorganized according to the characteristics and teaching content of the computer basic course, and it uses network technology to further optimize the learning resources, make the teaching content and teaching methods more flexible and achieve a good teaching effect^[3]. The blending teaching integrates the teaching idea of MOOC and SPOC, which makes the practical teaching more free and flexible. At the same time, it makes use of micro-teaching resources to practice teaching for students to further improve their learning quality. Based on the blending teaching model, teachers shall

mainly conduct teaching activities from the following aspects: 1) To further improve the teaching environment. Teachers shall make effective use of MOOC platform to further develop online teaching courses and establish an open, interactive and strong expanding teaching platform. 2) To further improve the teaching content. In order to better highlight the fragmented and interactive features of blending teaching, teachers shall further improve teaching contents such as videos, teaching materials, examination questions and practical cases to make the micro-teaching resource library more substantial.

4.3 Use Task-Driven Teaching Mode

Task-Driven teaching refers to the practice of integrating some practical activities based on computers in the teaching process, and carries out relevant teaching with tasks and objectives. In this teaching mode, teachers can choose some representative and strong practical work tasks, and take this as an example for classroom teaching, careful analysis of the relevant task knowledge and operating skills based on the work tasks. And teachers can gradually extend teaching knowledge, give students a detailed answer where questions arise, guide students to analyze problems, find out the answer and deepen students' learning impressions. Adopting teaching-driven teaching model can better improve the practical ability of students to stimulate students' interests in learning and enhance the learning effect.

4.4 Reform on the Assessment Methods of Basic Computer Course

Because the computer experiment course occupies a longer time in the overall computer teaching, teachers shall make it account for a large proportion when they formulate the semester scores of students, and it can be used for a total score, such as the review of office software, which can be used by teachers to separately formulate a set of examination questions from Word, Excel and PowerPoint, so that students can complete them in the experimental class. Students learn from their own studies or teachers, gradually grasp relevant skills and the operation of relevant knowledge. Then, based on the performance of students' examination questions, the teacher will understand the students' learning situation and make corresponding teaching plans for the deficiencies. For the assessment of the theoretical knowledge part, teachers can make assessment through the final test, which is because the theoretical knowledge is less effective in the whole computer teaching. Therefore, this part of the score is also a small proportion, which can account for 20%-30% of the total score. At the same time, the content of the theoretical assessment shall not be limited to what is learned in the

classroom and based on the hot topics of today's society and cutting-edge knowledge as the assessment content, teachers can stimulate students' autonomous learning and enable students to actively explore the development in related fields and enhance their own conservation. In addition, in order to stimulate the desire of students to learn, teachers can formulate some incentive policies to grant certain material rewards to students who have achieved excellent results or obtained relevant knowledge quizzes.

4.5 Cultivate Students' Ability of Independent Study

With the development of the times and the progress of science and technology, the knowledge scope and practical application of computer are also constantly evolving and changing. Only by constantly learning and reserving the relevant knowledge in time can students become computer talents who meet the needs of society. Therefore, based on students' basic computer knowledge, teachers shall integrate some new computer technologies or applications suitable for the development of students in their teaching to enable students to carry out independent learning. Teachers can guide students to study independently by establishing learning interest groups and arranging learning tasks. When students have certain self-learning ability and learning methods, they can give lectures in class and the expressive ability can be cultivated and other students' learning imitation can be stimulated.

4.6 Strengthen the Construction of Computer Teachers in Colleges and Universities

The teacher is the important executor of computer teaching, so the level of teachers determines the quality and teaching level of computer teaching. Therefore, strengthening the construction of computer teachers in colleges and universities is the main way to solve the backward computer education. Colleges and universities shall step up their efforts to introduce professionals in computer science and at the same time improve the relative benefits of computer teachers so as to attract more high-level and high-quality personnel to join the ranks of teachers. At the same time, colleges and universities shall regularly train

computer teachers. Due to the rapid development in the field of computer, in order to adapt to the development of the times, the training of computer teachers shall be strengthened according to the present innovation theory and practical application.

5. Conclusion

At present, there are still some problems in basic computer education in colleges and universities in our country. These problems have affected the learning and development of students majoring in computer science and have a negative impact on the development of computer science in our country. Therefore, colleges and universities should make appropriate reforms to basic computer education, carefully analyze the existing problems in basic computer teaching, and put forward effective solutions to meet the social development needs of computer professionals. At the same time, colleges and universities shall integrate innovative teaching concepts and teaching methods. Starting from the students' actual conditions, the students' professional requirements shall be adjusted reasonably; the computer teaching system shall be perfected; the teaching mode shall be improved, and finally the professionals majoring in computer application shall be cultivated with high comprehensive ability and high quality.

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