

# The Present Situation and Countermeasure of Computer Basic Course Experiment Teaching in Colleges and Universities

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**Abstract:** The experimental teaching is not only an important content in the fundamental course of computer, but also an indispensable part of the fundamental course of computer, this article believes that, at present, our university computer fundamental course experimental teaching still faces many problems. Science and technology change with each passing day, human society has entered the information age, computer technology has penetrated into people's life, and gradually become an essential technical means. This paper analyzes the current situation and problems of basic computer courses in colleges and universities, and discusses how to improve the teaching mode of basic computer courses.

**Keywords:** Computer; Basic courses; Teaching status

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## Introduction:

The basic teaching of computer in colleges and universities is oriented towards the teaching of computer major, which has strong practical application value. The experimental teaching of basic computer course is an important part of basic computer course, through the experiment can make the boring and abstract basic computer knowledge more vivid, students can really master the basic computer operation skills. However, before graduation, we found that many students are not skilled in the use of computers, general office software can not use, not only can not use the computer to complete the graduation design, also can not do the table; How to improve the students' computer operation ability is an important problem faced by Chinese universities at present.

## 1. Present teaching status of basic computer experiments in colleges and universities

### 1.1 Insufficient laboratory equipment resources

Computer room not only to meet the daily life of thousands of students in the school, but also to deal with various kinds of examinations, so students in addition to the computer class, rarely have the opportunity to go to the laboratory for independent learning; Some students with poor computer foundation have missed a large number of computer training opportunities, so it is necessary to strengthen the investment in college computer experimental equipment and increase the number of Internet users.

### 1.2 The content of experiment is not in harmony with theoretical teaching

Computer technology changes with each passing day, the theoretical knowledge of computer is constantly updated, but the content of computer experimental teaching materials has fallen behind The Times, the content is out of date, due to the slow updating of textbooks, students' experimental teaching content and theoretical knowledge is inconsistent, students can not fully understand and experience the theoretical knowledge in practice, thus affecting students' mastery of new knowledge and new technology. At the same time, the teaching content of the experiment is inconsistent with the level of students, and the teaching content lacks clear hierarchy. Students of different majors have different degrees of learning in basic computer courses, and their computer skills and levels are also uneven. Some of them don't even use computers very much, while some of them can skillfully input various information. Experimental courses are not taught in accordance with their aptitude, the experimental content is

relatively fixed and lacks level, and there is a certain distance between what they have learned and practice. It affects the creativity of students in the experiment.

### **1.3 Experimental teaching fails to fully stimulate students' initiative**

At present, the teaching methods and means of computer experiment in colleges and universities are relatively simple, and most of the experimental courses are completed by students on the computer after class homework explained by teachers. On the one hand, due to the continuous development and integration of multimedia technology and information technology, a large number of new software emerge at the historic moment, such as: graphic animation design, image processing; On the other hand, in the computer experiment teaching, students self-control ability is weak, often do nothing to learn. This results in poor experimental teaching quality of students and has a great impact on the overall computer quality of students.

### **1.4 The experimental procedures are not standardized, and the test results are difficult to evaluate**

At present, the experimental teaching assessment of computer major usually adopts the form of handing in the results, and teachers usually arrange part of homework in class. However, due to the particularity of computer major, there is no effective evaluation of students' experimental process, results and homework, and students often copy each other and answer randomly in class. Therefore, It is difficult to evaluate students' computer application ability effectively, and can not really reflect students' learning state.

## **2. The reform countermeasure of college computer basic course experiment teaching**

### **2.1 Strengthen the focus of experimental teaching**

First of all, colleges and universities should combine experimental teaching with theoretical teaching, which should not only strengthen the basic knowledge of computer, but also pay attention to the application of theory. In the computer experiment teaching, we should pay attention to the cultivation of students' hands-on ability, increase the time of students' computer experiment, strengthen students' hands-on ability and practical operation ability. It is also necessary to establish a scientific and reasonable evaluation system of examination results, so that the theoretical and experimental teaching results are reasonably combined, and students' computer level is reasonably reflected. Secondly, to strengthen the construction of computer laboratory, from the hardware and teachers of two aspects of investment. The first is to ensure the investment of scientific research funds, ensure the regular update and maintenance of all kinds of instruments and equipment, adopt special responsibility system, damage registration and repair reporting system, increase the time of experimental teaching, practice time and opportunities, set up video monitoring equipment in the laboratory and corridor, and equip professional personnel for daily maintenance and work of the laboratory. At the same time, it is necessary to strengthen the training of experimental teachers, so that the management and professional quality of teachers can be further improved, and thus the quality of experimental teaching will be further improved.

### **2.2 Strengthen the updating of experimental teaching materials**

With the rapid development of computer science and technology, the updating speed of computer theory knowledge is getting faster and faster. The teaching content of computer experiment must keep pace with The Times. The school should modify the experimental curriculum according to the requirements of the curriculum and the teaching objectives. The teaching content of this course should be based on the theory of computer, which is conducive to the cultivation of students' practical operation ability, and can properly enable students to master other knowledge of computer, broaden students' vision, stimulate students' interest in learning. In teaching practice, teaching content should be novel, reasonably structured and combined with theoretical knowledge. In the implementation of the experiment, attention should be paid to the students' hands-on ability, to promote students to discover and solve problems, so that students gradually have greater confidence in the use of computers and learning enthusiasm

### **2.3 Use classified teaching and implement a variety of teaching methods**

Different students have different basic skills in computer operation. Teachers can divide students into majors and non-majors according to their majors, knowledge and skills, and adopt different teaching methods. Students majoring in computer have a high degree of mastery of computer knowledge, a solid foundation, and a strong interest in learning computer knowledge. The teaching of experimental courses for this type of students is mainly familiar with computer courses. The main contents include understanding and using the operating system, network design and connection, algorithm construction and simple programming. For non-major students with poor computer foundation, experimental teaching should mainly focus on basic computer operation, aiming at cultivating students' understanding and application of computer knowledge. According to the

categories of students, different experimental items are designed to meet the needs of students at different levels of computer use. The adjusted experimental items are closely related to the theoretical teaching content, so that students can better understand and experience the theoretical knowledge in practice, and can explore the experimental items, so as to stimulate students' enthusiasm for learning application software. Teachers can also use diversified teaching methods to carry out various forms of teaching activities, increase students' interest in learning, promote students' digestion and absorption, and expand students' thinking. For example, the use of multimedia technology, sound, animation, image and other technologies combined to make the classroom content more vivid and intuitive, teachers can also organize a variety of computer experiment teaching activities, improve students' interest in learning, stimulate students to apply theoretical knowledge to practical work, strengthen the cultivation of innovative talents.

## **2.4 Establish a scientific and reasonable assessment mechanism**

The purpose of setting up basic computer courses in colleges and universities is to improve the students' computer application ability and comprehensive quality, and to train information technology talents for the country. The evaluation of exam results is only a test of students' mastery of computer skills. It aims to encourage students to work hard in learning and mastering computer knowledge. In order to truly and reasonably reflect the basic computer knowledge of college students, we need to build a set of scientific and reasonable evaluation mechanism. For computer students, they can pass the test of experimental courses, such as the design and production of some software products. For non-computer students, it is based on testing the operation ability of common computer applications, combining the assessment of theory and practice courses organically, so as to better reflect the degree of students' mastery of computer knowledge. Through a new round of tests, students will learn computer learning enthusiasm and initiative to a certain extent, and can promote students to learn independently, understand and master computer technology, to achieve the goal of experimental teaching.

### **Closing remarks:**

The experimental teaching of basic computer course in colleges and universities must be improved and perfected in the course of teaching. According to the training standard of professional and technical personnel, the practical operation skill demand of college students is deeply discussed, and a teaching system of basic computer course is established, and a refined experiment module and skill point are formed. In the process of implementation, we should pay attention to the training of students' practical operation and creative spirit, accelerate the construction of experimental teaching and laboratory, realize the integration and sharing of high-quality resources, improve the school's level and quality, so as to our 21st century economic and social development in urgent need of professional and technical personnel.

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