

Teaching Reform and Practice of College Computer Basic Courses based on Ability Training

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Abstract: In order to help students effectively improve their computer ability and cultivate their application ability, it is necessary for college computer courses to be reformed to adapt to the development of the era of big data. In the teaching process, it should present correct teaching concepts, and highlight the characteristics of application ability and practical ability. Based on this, this article mainly discusses the teaching path of college computer basic courses, aiming to effectively enhance students' computer ability.

Keywords: College Computer; Ability Training; Teaching Reform

To enable students to adapt to the rapid development of society in the information age, teachers need to take computer ability as the main teaching goal for laying the foundation for students' future work and study. As computer ability has already become one of the key skills in corporate assessment, college teachers should realize the importance of computer skills and help students develop in an all-round way.

1. Teaching reform goals of college computer courses

Computer courses, as one of the compulsory courses, are quite important to cultivate students' computer ability, making them have a deeper understanding of computer and enriching their computer knowledge reserve. The teaching reform of college computer courses mainly includes the following reform objectives. First of all, it is to offer practical courses to students majoring in computer science, so that their computer application ability can be effectively improved. Second, it is to enable students to solve some computer problems encountered in real life by studying computer courses. Third, it is to apply flexible teaching methods to strengthen students' team cooperation ability and cultivate their innovative thinking.

2. Effective reform path of college computer courses

2.1 Constructing a curriculum system aiming at cultivating ability

One of the main teaching objectives of college computer courses is to help students transform the computer knowledge they have learned in class into real life to solve problems. Therefore, it is vital to construct a curriculum system with the aim of cultivating ability. In the process of constructing the curriculum system, teachers first need to have a clear understanding of the overall level of students' computer ability, which can be realized by setting relevant examinations. Based on the survey results, a targeted curriculum system can be set up. In addition, teachers can adopt the "1 + x" teaching mode to enrich students' knowledge reserve to the maximum extent. The mentioned "1 + x" teaching

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mode refers to that computer course are taken as the core, supplemented by network security courses, database courses, Java courses, etc., in which students can learn comprehensive computer knowledge.

2.2 Constructing the “trinity” teaching material structure

2.2.1 Paper textbooks

When choosing teaching materials, teachers should not blindly pursue the unification of teaching materials in different regions. Instead, they should design and compile the outline of teaching materials according to the actual situation of their students, as well as the relevant grade examinations and teaching requirements. The main contents of the textbooks should be basic computer operations, experimental items and solutions to common problems, etc., thus students can master computer skills and knowledge in the process of task practice.

2.2.2 Conducting online learning activities

Online learning activities enable students to carry out targeted learning on the platform according to their own learning status and progress. Besides, students can also make study plans conforming to their study habits, so that they can become more and more independent with their enthusiasm for learning fully mobilized.

2.2.3 Constructing an experimental practice system

Computer learning requires the united development of practice and theory. Therefore, the implementation of the experimental practice system in computer teaching can effectively make up the shortcomings of single theory teaching, turning computer teaching into a discipline that attaches importance to practical experiments, arousing students' learning enthusiasm through practice, and helping them consolidate computer theoretical knowledge in the practice process, which is conducive to the follow-up computer teaching. Moreover, teachers should update their own practical teaching concepts, constantly perfect and enrich the practical teaching contents, so as to enhance students' practical ability and innovative thinking.

2.3 Flexibly adopting various teaching strategies

In daily teaching, a favorable teaching environment and learning atmosphere can be constructed based on LAN. There should be two programs installed, namely, the teacher port and the student port. The teacher port is usually for sending instructions, and teaching demonstration through software, so that students can learn relevant operations and knowledge in the process of teachers' demonstration. Through the screen recording function, the prepared key teaching points and practical operation difficulties can be accurately conveyed to students. In the college basic computer courses, the content of Ms Office is extremely important, among which the application simulation should be the key content of teaching. In addition to being in line with the trend of the times and the actual work needs, the teaching content should be added with the secondary core testing points such as Excel, PPT and Word. For example, in the process of teaching how to make forms, teachers can first use PPT to make teaching manuscripts and Word to edit reports, etc. Specifically, teachers can first carry out the teaching of basic skills. In this mode, they need to operate while giving lectures, so that students can intuitively grasp the operation of computer hardware and software. Second, teachers can carry out teaching activities by using the task-driven method. They need to divide teaching tasks into several sub-tasks that consist of targeted exercises, then organize and guide different groups of students to assist each other to complete those tasks. Third, case-based teaching should be carried out. The use of cases can effectively arouse students' learning enthusiasm. However, what should be noted is that the cases applied should conform to the cognition and curriculum needs of young people. Fourthly, the teaching mode of thematic research can be adopted. Students should be divided into groups, each of which is given corresponding learning tasks and goals. Then, students are guided and assisted to complete the opening report and periodic report. At the end of the course, every group is required to submit task works or summary reports.

2.4 Certificate-based examinations as the curriculum assessment standard

Certificate-based examinations have become the main way of assessing college computer courses at present. The National Computer Rank Examination can effectively examine students' mastery of computer knowledge and application ability. In addition to the National Computer Rank Examination, related authoritative examinations are highly normative and targeted. Therefore, teachers should make good use of these professional examinations to innovate computer assessment accordingly. Specifically, the school examination content should be set with similar content and standard based on the National Computer Rank Examination, so that students can master computer knowledge under the same examination intensity. It is worth noting that the effective implementation of the certificate-based examination mode requires the establishment of a systematic work system, and with the help and coordination of relevant departments to design teaching plans and outlines that are in line with the actual conditions, thus students can keep up with the trend in computer learning. Meanwhile, computer teachers should actively improve their professional quality and ability through autonomous learning and training, to better help students learn computer knowledge.

2.5 Creating a professional team of teachers

Teachers' professional quality is very important in helping students improve their computer knowledge and application ability. First, it is necessary to confirm the improvement orientation of teachers' professional quality. The ability-oriented teaching goal requires teachers to pay attention to computer professional skills and theoretical knowledge. In addition, schools should attach importance to computer teaching, introducing computer teachers according to the actual situation of schools, so as to ensure the smooth development of computer courses. At the same time, computer teachers should receive regular training, which focuses on the design of computer professional courses and the discussion of common problems in daily teaching. In addition, according to the demand of computer ability in the current society, teachers need to update their teaching concepts in time, and design new teaching strategies, enable the computer teaching in schools to keep up with the rapid development of the times.

3. Conclusion

To sum up, people's demand for computers has been growing in the information age, and the computer knowledge and practical ability needing to be mastered are constantly being updated. This requires teachers to understand clearly the development needs of society, update teaching concepts and design new teaching strategies in time, so that students can achieve better development in future work and study. On the other hand, college students in the new era need to pay full attention to computer learning in colleges and universities. Computer learning is of great benefit to students' innovative thinking and comprehensive accomplishment. Only by studying computer theoretical knowledge in a thoroughgoing manner can students do a good job in practice training, effectively cultivate their comprehensive computer literacy, and enhance their competitiveness in the future society.

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