Discussion on the New Path of Computer Curriculum Construction in Higher Vocational Education Institution

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Abstract: *Computer teaching focuses on cultivating students' practical operation ability, innovation ability and logical thinking ability. The computer course is composed of many modules, which are interrelated to form a complete computer course. The construction of computer courses in higher vocational colleges should aim at improving teaching quality. It is guided by enhancing students' cognition of the curriculum system and combines computer teaching with various teaching activities and competitions to improve students' abilities as a whole.*

Keywords: *Computer education; Vocational school; Curriculum construction*

1. Introduction

In recent years, all major colleges and universities have increased enrollment, and there are many new vocational colleges. Then the employment pressure and competitive pressure of students graduating from higher vocational colleges will continue to increase. In order to enhance the competitiveness of students to enter the workplace and become practical talents, the teaching of computer major courses must be innovated and reformed, and teaching practice activities must be increased through teaching optimization so that students can better adapt to future jobs.

2. Significance of Computer Curriculum Construction Exploration in Higher Vocational Colleges

2.1 Stimulate students' autonomous learning

China's scientific and technological level has developed rapidly, and the coverage of the Internet has gradually increased. In recent decades, the coverage rate of computer specialty informatization in major vocational colleges has increased dozens of times. Therefore, there is an urgent need for computer professionals nowadays. The traditional teaching mode cannot meet the requirements of the times for talents, which means that the teaching mode needs to be continuously developed and transformed. And the new teaching modes should be developed by using Internet technology so that students can feel the sense of satisfaction brought by being taught, improve their enthusiasm for learning to a greater extent, and exercise their independent learning ability.

2.2 Promote students' efficient learning

With the rapid development of information technology in the current era, computer courses in higher vocational colleges are the product of adapting to the development of the times. It uses modern science and technology to train talents and transform the teaching mode. While facing the development and challenges of all walks of life, computer education should make innovations in different aspects, promote the improvement of the information development system of higher vocational colleges, and make the internal development more scientific and technological. Educators need to make creative changes in the teaching process in combination with the traditional teaching mode. At present, society has been fully covered by information technology. Improving the learning efficiency of students has become a very important content in the education system. Students constantly improve their knowledge level in the learning process and lay a foundation for the future development of the computer industry.

2.3 Take students as the main body of learning

Most of the educators in higher vocational colleges in our country do not reasonably guide students to improve their enthusiasm for autonomous learning. The learning base of higher vocational students is relatively poor, so it is difficult for them to learn independently, and their innovation ability is also poor, resulting in their eventual disconnection from society. At present, the main direction of the new curriculum reform is to ensure the practicality of learning courses, change the traditional teaching system, and let students become the main body of learning. Educators and schools should further understand the learning situation of students according to the particularity of schools and majors, and guide students to innovate and create.

3. Deficiencies in computer teaching in higher vocational colleges

3.1 The teaching content involves less current technological hotspots and lacks the characteristics of the times

Many computer courses in Higher Vocational Colleges involve knowledge in books. These contents are highly theoretical, which is difficult for students to understand and very boring and abstract. Theoretical learning is the basis of practical learning, and teachers should screen out content that can help students lay a good foundation. And let these contents be operated practically, so that it is not divorced from practice and students can learn it easily [1]. Some computer courses in higher vocational colleges still take the teaching content and curriculum system of many years ago as the main guidance, and rarely involve the technical hot spots in today's society. The development of computer technology will advance by leaps and bounds every other period of time. The teaching content of computers in colleges and universities must also keep up with the times to complete the curriculum update and technology teaching updates. Integrate cutting-edge technology into the new textbooks, so that students can keep pace with the times and maintain an advantage in social competition. While keeping pace with the times, the selection of teaching materials should also conform to students' learning characteristics. The practicality and applicability of the textbook could improve students' practical operation ability and application ability.

3.2 Teachers' teaching ideas have not been updated, and teaching methods cannot be diversified

Although quality education is advocated now, students' scores are still a matter of concern to school teachers and parents. The disadvantages of exam-oriented education still exist. Many teachers still use the indoctrination teaching mode in computer teaching, and the number and frequency of organizing students to carry out learning activities are relatively low, so students' theoretical knowledge learning cannot be practiced and improved in time, and their practical ability is separated from knowledge learning. This teaching method is inflexible and detrimental to the development of students' abilities. The teacher outputs knowledge on the platform, but the students can't understand it. There is a lack of communication between teachers and students. Students' thinking and independent inquiry are not valued by teachers. In the long run, students will lose their motivation to learn, and gradually lose their interest in computer learning and in-depth research. Students will not feel a sense of achievement and happiness, thus discouraging students' enthusiasm.

3.3 Students' experimental practice is out of line with vocational skills

There are many higher vocational colleges in China, but not all of them can provide a full set of hardware equipment for students' experimental operations. The difference in school running conditions determines the degree of students' practical operation in the experimental link. Some experimental equipment is too expensive, and the school does not have enough funds to buy, or can only buy one or two, resulting in students can only see the teacher's operation or can only understand the experimental steps. Carrying out "ideational" operation greatly limits students' experimental ability and inquiry ability, which is not conducive to the cultivation of students' innovative thinking.

4. Strategies of computer curriculum construction in higher vocational colleges

4.1 Constructing computer curriculum system from multiple dimensions and levels

At present, the computer curriculum system in higher vocational colleges generally includes four pairs of courses: general courses and professional courses, compulsory courses and elective courses, theoretical courses and practical courses, classroom teaching, and extracurricular teaching. Different vocational colleges have different teaching priorities, so the proportion of these four types of courses will also be adjusted. The curriculum system includes two kinds. One is the hierarchical curriculum system, whose goal is to cultivate specialized talents with strong logical thinking and a strong foundation. Students trained through this mode are more professional. The other is the modular computer course system, whose teaching goal is to cultivate comprehensive quality talents with a wide range of professional knowledge and all-around development. It is conducive to allowing students to explore their advantages and help students achieve personality development [2]. These two kinds of structural systems have their advantages and disadvantages. Although the students trained by the former are highly professional, their knowledge is relatively narrow and their comprehensive quality is relatively poor. The latter cultivates students with stronger comprehensive quality, better humanistic cultivation and a broader range of knowledge, but it may be that it pursues students' all-around development too much and makes students lack professionalism. When constructing the computer curriculum system, higher vocational colleges should make reasonable and scientific planning according to different teaching objectives and school teaching characteristics, and also pay attention to avoiding the two typical teaching systems of mechanical handling. They should have the characteristics of colleges, respect and consider the needs and future development of students, and carry out the construction of a tailored curriculum system in combination with the teaching policy of colleges.

4.2 Encourage students to design experiments independently

In the past, computer experiment teaching in higher vocational colleges was mostly demonstrated by teachers, which restricted the cultivation of students' creative thinking. After a certain amount of knowledge learning and teachers' theoretical guidance, encouraging students to carry out independent experimental design from theory to practice can help students' learning to a new level and make a qualitative leap in the application of knowledge. The theoretical basis of this teaching method is " the task-driven method", which can enable students to enhance their autonomy and enthusiasm in learning, enable students to learn in an application. Apply in learning, and combine learning with the application, so as to achieve the goal of mastering knowledge deeply. For some difficult experimental designs, teachers should give students an experimental outline and basic task planning to help students carry out independent experimental designs under the guidance of a certain direction and finally complete the task. In actual teaching, teachers still need to play an important role. Although students are the main body of learning, teachers are also the main body of guiding students. For the completion of the final task and the supervision in the process of task completion, teachers should accurately control and strictly implement it according to the standards, so that students can truly realize the relevance between the learned knowledge and the experiment in actual operation, and can truly analyze and solve problems independently, In this way, students can have a strong ability to solve problems, which is conducive to them to face difficulties correctly and solve problems independently when they enter the society.

4.3 Explore the construction of a curriculum system according to the characteristics of school teaching

According to the current social needs and the characteristics of computer teaching courses in higher vocational colleges, computer courses in general higher vocational colleges are a combination of a hierarchical curriculum system and modular synthesis system. Higher vocational colleges should actively explore when building the curriculum system, which not only ensures the professionalism of students' learning, lays a good foundation for students' professional knowledge and skills, but also takes into account the development of students' comprehensive quality, improves their humanistic quality and broadens their horizons. Finding a curriculum design arrangement suitable for the teaching characteristics of the school in the exploration of the curriculum system can not only promote the cultivation of students' professionalism, but also improve students' comprehensive quality. Higher vocational colleges can learn from the successful experience of advanced countries and strive to cultivate a batch of high-quality innovative technical talents for the country with the goal of cultivating students who are a "solid foundation, broad majors, strong practice, innovation and management". The cultivation of students' professional ability is not contradictory to the development of their comprehensive quality. As long as

appropriate reforms are carried out in the curriculum, students can have both professional knowledge and strong comprehensive ability [3]. When learning professional knowledge, students' ability training can be added, focusing on the cultivation of students' ability to analyze and solve problems, and appropriately encouraging students to cooperate and communicate among teams. Schools can organize teachers to carry out several teaching activities. The contents of teaching activities are related to professional knowledge, but not limited to professional knowledge. Students are encouraged to carry out interdisciplinary cooperation, so that students can expand their knowledge and enhance their comprehensive quality in practice and contact with different people.

4.4 Strengthen the construction of faculty and enhance teachers' sense of responsibility

Facing the new situation and new requirements of computer teaching, higher vocational colleges should actively introduce high-quality teachers to build up the faculty. It is necessary to use various resources to train teachers, improve their overall quality and enhance their sense of teaching responsibility. We should build a team of teachers with higher quality, a stronger sense of responsibility and higher innovation ability for students. Higher vocational colleges should also strictly control the academic qualifications of teachers, and professional teachers should preferably be graduate students or above. Teaching assistants should also preferably have a bachelor's degree or above. The improvement of teachers' comprehensive quality is conducive to the construction of teachers' team and the better implementation and promotion of educational work.

4.5 Training innovative talents with employment as the goal

Higher vocational colleges can divide the computer specialty into different sections according to different characteristics, so as to ensure that there is specialization in the technical field. And further clarify the functions of the computer specialty according to the current common direction, and then design the corresponding implementation scheme according to the specific subdivision content. The emphasis of social occupation is different. It is the goal of higher vocational schools to cultivate creative and innovative computer professionals who can meet the needs of society. At present, the employment scope of computer majors is wide and the demand for talents is large. Therefore, higher vocational colleges should strengthen the training of students and use teaching resources to guide students reasonably. At present, enterprises need talents who master office software, so the development space of computer specialty is large. By analyzing the statistical data of relevant national departments, we know that China attaches great importance to the maintenance of computer network and urgently needs professionals to improve work efficiency. Higher vocational colleges should properly adjust the teaching structure of the computer specialty, combine the demand of the employment market and the employment prospects of the whole computer specialty, cultivate more innovative talents with excellent skills, and improve the practicability of the computer specialty.

4.6 Cooperate and interact with enterprises to expand the scope of employment

Through cooperation with social enterprises, higher vocational schools can promote students to understand the needs of enterprises and broaden their knowledge while conducting classroom practice. Specifically, the school needs to improve the professional level of the computer classroom in higher vocational colleges, hire teachers of related majors to give lectures in the school, provide students and teachers with opportunities to practice in enterprises, and regularly organize them to share their experience in practice. After observation within the enterprise, students and teachers can better understand their own shortcomings and carry out targeted supplementary learning. After the training, teachers can adopt more efficient teaching methods to improve their teaching level. Students can have the most real and thorough understanding of the computer industry and firm their learning direction. This interactive and experiential teaching, can not only strengthen the interaction and cooperation between higher vocational colleges and enterprises, but also provide students with practice opportunities, create a win-win situation, and improve the mode of industry-university cooperation.

4. Conclusions

In the teaching reform of computer curriculum in higher vocational colleges, we should strengthen the curriculum construction and teaching strength, and pay attention to the combination of theory and

practice to improve the teaching level. College leaders and teachers should play an active role in improving the quality of the faculty, exploring and innovating the computer curriculum system, creating a better learning environment for students, and helping students grow up healthily and comprehensively.

Acknowledgements

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