Research on Vocational Quality Education for College Computer Students

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Abstract: With the rapid development of social economy in our country, the application of computer is more and more extensive, the application technology is more advanced, and the demand for computer technology is gradually showing a diversified development trend, which leads to the increasing demand of the society for the computer professionals trained in colleges and universities. Based on this background, the training of computer professionals in colleges and universities should not only pay attention to students' theoretical knowledge and professional skills, but also pay attention to students' professional quality and focus on carrying out professional quality education. This paper briefly analyzes the composition of professional quality of college computer majors and probes into the countermeasures of vocational quality education for college computer majors.

1. An Analysis of the Professional Quality of College Computer Students

The computer major in colleges and universities is an important subject to train highly qualified professionals for our society, and it is the source of supply for most enterprise software technicians and programmers in our country. From the feedback from various enterprise software development departments and other relevant work departments, it can be found that some enterprises are not satisfied with the professional quality of the students who graduate from colleges and universities, indicating that some students who have just graduated have certain technical application ability, but they lack the ability to judge alone, innovate and lack the sense of professional ethics. Based on this, colleges and universities should focus on cultivating students' professional quality, adjust the curriculum teaching structure, pay attention to the development of students' quality, cultivate students' innovative ability, promote the healthy development of computer talents training in our country, and meet the diversified needs of social enterprises for professional talents.

1.1 Vocational Skills Literacy

According to the selection criteria of computer professionals in various social enterprises, combining the development plan of computer professional education in colleges and universities, and grasping the basic characteristics of students, colleges and universities can refine the professional accomplishment of computer students into two aspects: professional skill accomplishment and professional ethics accomplishment (as shown in Table 1).[1].

Table 1 Composition of professional literacy

Professional literacy				
Vocational skills		Professional ethics		
Professional knowledge	Vocational skills	Love your job	Honest and trustworthy	Dedication to society

On the vocational skills of students majoring in computer science in colleges and universities, colleges and universities should focus on the students' career development as the core goal, pay attention to the students' ability to graduate smoothly, obtain employment, and pay attention to the students' career development plan, all of which are closely related to the basic knowledge, professional skills and applied technology that students master during their study in school. Based

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on this, colleges and universities can combine the actual situation of the region, according to the technical update of the computer professional field and play in that trend, combined with the national vocational standards, set up specific courses to provide students with multi-angle, diversified, multi-level vocational skills education. For example, the enterprises in Hangzhou area are mostly high-tech enterprises, and the colleges and universities can plan the development direction of professional graduation according to the data of the students' graduation in the local employment, respectively: software technology, degree staff, office staff, enterprise network system management and so on, so as to train the students' vocational skills and promote the students to master the job skills in all directions.

In addition, colleges and universities can further refine the direction of students' job development, such as: if students are interested in graphic design by taking into account the knowledge of computer technology and design, colleges and universities can propose more specific skills training courses when developing students' vocational skills; and colleges can offer graphic software operation courses such as Photoshop, Corel Draw, print advertising creative courses, promotional color page design, art basic courses, and anatomy perspective courses.

1.2 Professional Ethics Literacy

Professional ethics is one of the important qualities for students to start their careers after graduation, and it is the important basis for students to love and work hard and to create value for enterprises. Many enterprises take professional ethics as the important link of talent assessment when choosing talents, and require employees to love and work hard, conscientiously and honestly, and have a sense of post responsibility. Therefore, in computer teaching, colleges and universities should integrate professional ethics education, balance the relationship between professional skills and professional ethics education, and infiltrate into daily teaching, which will influence students' thinking and cultivate students to form good professional ethics literacy.[2].

2. The Countermeasures of Professional Quality Education for Computer Students in Universities

2.1 Pay Close Attention to Professional Classroom Teaching and Permeate Professional Quality Education

In order to cultivate students to form good professional quality, computer teachers in colleges and universities should start with the teaching link of professional courses, so that students can gradually form good professional quality in the process of learning. According to the situation of college students and the structure of the curriculum, teachers can integrate professional ethics education and vocational skills education into the curriculum system, optimize and integrate, offer "career planning course "," mental health education course" and "professional ethics education course ", etc., so as to make students realize the important significance of their own professional quality [3]. In the course teaching process of computer major, teachers can combine the corresponding quality education according to different knowledge content and time activities, clearly put forward the teaching content, ability goal, quality goal of the course, and carry out the classroom teaching purposefully. In addition, teachers can also set up classroom assessment, through the way of investigation to master the skills and literacy of students, for the next adjustment and arrangement of professional quality education lay the foundation.

2.2 Introducing "Project Teaching" to Cultivate Students to Form Professional Moral Literacy

In order to cultivate students to form a good professional quality, computer teachers in colleges and universities should focus on vocational skills training in the process of professional education to provide students with sufficient learning space and opportunities for vocational skills. In daily teaching, teachers can properly carry out "project teaching ", that is, according to the specific computer curriculum content, draw up the corresponding theme, form" project ". Then, let the class

students form their own project course group, and take the group as the unit to participate in the project practice and operation. For example, the teacher can set up the virtual company situation in advance, let the students combine their professional tendency to form each department group, receive the department task, and complete the corresponding department work. In this process, students can not only learn the new job skills, but also gradually form a good professional sense of dedication and love, so as to make students fully aware of the social role and the sense of mission of the enterprise [4].

2.3 Carry out Professional Practice Activities Regularly to Train Students' Professional Accomplishment

In order to cultivate students to form good professional quality, computer teachers in colleges and universities also provide students with the opportunity to exercise, so that students can get exercise in a series of activities, further consolidate students' vocational skills and improve students' professional literacy level. In colleges and universities, teachers can take the professional practice activities as the transition from the campus to the social post of the students, carry out the professional practice activities regularly, guide the students to apply the professional skills and professional accomplishment of daily learning into the practical activities, internalize it into the professional quality, and promote the students to integrate knowledge and practice into one.[5]. Colleges and universities can also properly organize "vocational skills competition "," computer software creative competition "," employment planning competition" and so on, set up different awards, stimulate students' enthusiasm for participation, promote students to take the initiative to participate in activities, exercise students in the process of activities, and promote students to gradually form a good problem-solving ability, adaptability, and career creation ability.

Figure 1 Photos of the practice of computer science in colleges and universities

2.4 Develop School-enterprise Cooperation to Train Students' Vocational Skills

In order to cultivate students to form good professional quality, computer teachers in colleges and universities should strengthen cooperation with regional enterprises, strengthen the association of schools and enterprises, and give full play to the positive role of enterprises in cultivating students' professional quality. On the one hand, colleges and universities should make use of the professional quality education resources of enterprises, invite relevant personnel with rich working experience in enterprises to enter the campus, become external teachers or conduct vocational employment lectures, introduce advanced computer technology used in enterprises, and expand the scope of students' knowledge. On the other hand, colleges and universities should cooperate with enterprises to strive for a fixed number of outstanding students to enter the internship places in the enterprise, and send more outstanding students from all aspects of the major to enter the enterprise every year, so that students can personally experience the working atmosphere of the enterprise and learn the skills related to the work position. In addition, the professional practice base can be established, and the enterprise can provide technical and resource support for the base of the school, form complementary advantages, and promote the common development of the university and the enterprise [6].

Figure 2 University and enterprise "school enterprise union" picture

2.5 Build a Good Professional Environment and Strengthen Students' Professional Literacy Education

In order to cultivate students to form a good professional quality, teachers of computer major in colleges and universities should construct a harmonious and real professional environment, influence students' behavior and thinking through the environment, further strengthen the education of professional accomplishment, and provide computer professionals who can meet their needs for social enterprises. Colleges and universities should unite the parents of students, social forces, form a positive public opinion guidance, jointly build a harmonious atmosphere of professional ethics, healthy guidance for the growth of students, while maintaining the professional order in the society. In addition, the school should introduce the cooperative enterprise culture, urge the students to feel the cultural atmosphere inside the enterprise in the school, combine the order mode of the enterprise, and effectively cultivate the students' professional quality.

3. Conclusion

To sum up, in the context of modern society, if colleges and universities want to cultivate computer professionals who can meet the needs of the development of social enterprises, they should not only train students' ability to master basic knowledge and apply professional skills, but also pay more attention to students' professional quality. Let students master the application skills and professional ethics of professional related posts. In the process of practical education, colleges and universities should pay attention to the classroom teaching process of computer major on the one hand, innovate the classroom teaching method, such as: project teaching method, practice teaching method, gradually infiltrate the quality education, and cultivate the students' professional accomplishment. In addition, it is necessary to strengthen cooperation between schools and enterprises, build a real and good professional environment, and further strengthen students' professional quality education.

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