

Research on Training Applied Talents of Computer Science and Technology Specialty

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Abstract: With the development of the times, computer technology has been continuously promoted in social life, and the demand for computer technology professionals is growing, in order to train innovative and applied computer professionals in line with social needs. By analyzing the problems and shortcomings of practical teaching of computer science and technology specialty, the training scheme of computer science and technology specialty is studied. Various methods are used to optimize the content of practical teaching and reform the practical teaching mode. The research shows that the current training mode of information and computational science is put forward, and through the strengthening of practical teaching, the practical implementation of the training model is strengthened. At the same time, it is necessary to give full play to the advantages of higher education institutions, carry out inter-disciplinary cooperation within the school, innovate practical teaching, learn from the experience of applying talents at home and abroad, and keep close contact with the society, and continue to practice to ensure that students apply what they have learned.

1. Introduction

In recent years, with the improvement and development of China's market economy system, the society urgently needs high-level applied talents, and the lack of high-level applied talents has affected the rapid development of China's economy and the development of economic transformation. Therefore, it is an urgent task for higher education reform to strengthen the training of high-level applied talents and explore the training mode of applied talents [1]. The society's demand for computer talents has undergone tremendous changes, highlighting the professional characteristics of the computer application-oriented disciplines have sprung up, developed rapidly, and attracted much attention. At present, the research of applied talents training mainly focuses on the train of thought, training mode, training mechanism and training system of Applied Talents in different professional directions [2]. To make these talents high-quality talents, we need to continuously improve the individual's comprehensive ability. The traditional teaching model can no longer meet the progress of this talent. There are too many theories, too little practice, and can't satisfy the future development of society, and it is difficult to adapt to their own jobs. From the perspective of social needs, computer talent requires two basic qualities. The first is innovation, and the second is application, that is, the talents required are innovative and applied talents [3].

The training goal of computer science and technology specialty is to cultivate good scientific literacy and systematically grasp the basic theory and basic skills and methods of computer science and technology [4]. In scientific research departments, education departments, enterprises, administrative departments and units engaged in computer applications, computer system development and maintenance of computer science and technology application-oriented senior specialized personnel [5]. The specialty setting and training goal of computer science and technology specialty is mainly oriented by social needs. The demand for undergraduate computer talents is closely related to the goal and process of informatization. The development and application of disciplines lead to the diversification of the demand for talents [6]. There is no close connection between learning content and needs. This kind of problem will lead students to think that computer knowledge is a useless learning content after learning computer knowledge, and there is no need to waste energy to learn. There is no way to meet the needs of future jobs; at a critical time, it is impossible to help students to understand the importance of computer science [7]. In this

way, in the context of the cultivation of applied talents, it is necessary to apply powerful mathematical tools to practice, so that the knowledge acquired by students can be digested in time and applied. It is imperative to form cooperative research on applied talent training and mathematical practice research. Based on computational thinking, reform the computer course teaching system, integrate cases to solve professional field problems, cultivate students' sustainable application of computer technology, and promote their innovative ability in professional fields. This paper has carried out research on the application of talents in computer science and technology [8].

2. Materials and Methods

The goal of training is to describe the expected results of educational activities according to educational purposes, and to meet the specific training requirements of schools at all levels. The goal of training is the cornerstone of the process of theoretical research and practical activities of education. The characteristics of information and computational science determine that only through continuous practice can we closely connect with all walks of life, enhance the social adaptability of information and computational science, and promote social progress and development. The computer science and technology professional practice ability training program is shown in Table 1 and Figure 1. In recent years, except for some postgraduate studies, graduates of information and computing science majors are engaged in information technology, finance, economics, insurance, management, computing, and various engineering and computing industries. Drawing on the experience of domestic and foreign applied talents training, we can strengthen the practical teaching part in the above industries, and the curriculum and practice alternately, carry out internships and trainings in stages, promote each other, continuously strengthen mathematics practice, and then cultivate a large number of outstanding highs. Quality application talents.

Table 1 Training Scheme of Practical Ability of Computer Science and Technology Specialty

	Train	Administration
Basic ability	10.39	0.35
Professional core competence	9.52	0.26
Expanding ability	10.20	0.39

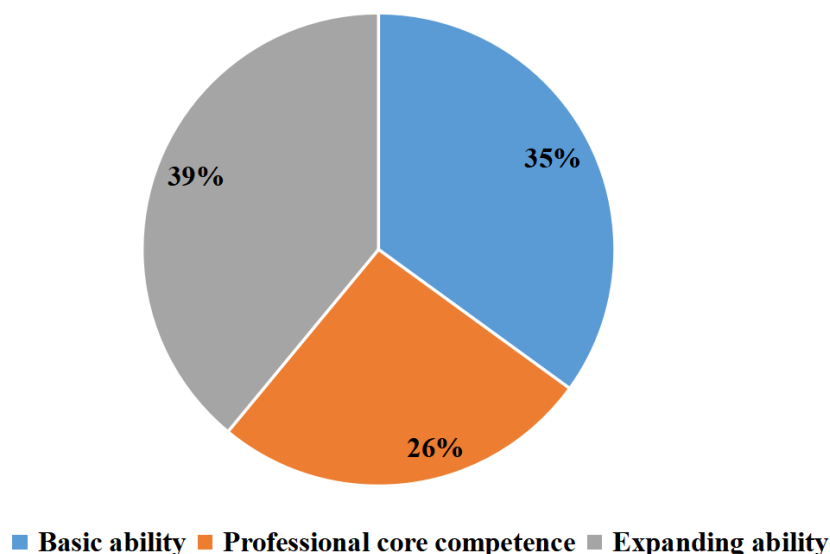


Fig.1. Training Scheme of Practical Ability of Computer Science and Technology Specialty

The content of the course should be reasonable, provide services to the society, understand what needs the public more, do a good job of market research, understand the development trend of science and technology, and understand what requirements people's life and society have for computer science and technology. Reasonable adjustments should be made in time. Developing new

professional courses is not only about textbooks, but also about the content of lessons, which is more in line with the actual life. The innovative characteristics of talents refer to that they should have strong innovative methods and spirit, dare to doubt and criticize, and dare to challenge authority. According to the requirements of professional skills training, computer science and technology students develop the skills and abilities required for algorithm analysis and design, program design and implementation, and system analysis and development. In a simple and intuitive way, it helps students understand the mathematics theory they have learned. It also lays a foundation for students to use computer to build mathematical models and deal with practical problems in the future. In the process of organizing the implementation of mathematical experiment teaching, teachers should pay attention to the relationship between experimental content and students' ability to withstand, and carry out mathematical experiments in different modules.

The application ability of computer application talents is closely related to the sense of responsibility, morality, psychological quality and will quality, and directly affects the effect and quality of work. Therefore, computer application-oriented disciplines should avoid attaching importance to professional knowledge and ability and despising non-professional basic qualities. When designing teaching classes, we should keep pace with the times, not just stay on the traditional teaching mode. This teaching mode has not been accepted by students. A lot of knowledge can only make students bored with computer knowledge classes. Need to import, reasonable teaching, enrich teaching methods, you can set up situation import, let computer knowledge and computer professional integration. At the same time, there are some difficulties in the cultivation of teachers (mainly research projects). Some excellent teachers have flowed to key universities after obtaining certain titles. These situations are quite unfavorable for the cultivation of innovative and applied talents. The whole practice process follows the gradual and gradual progressive teaching rules, realizes the overall improvement of practical skills, comprehensively and systematically trains students' practical operation skills and the ability to analyze and solve problems independently.

3. Result Analysis and Discussion

In order to cultivate students' applicability and innovation, the traditional teaching method based on theory teaching must change accordingly. Teachers should teach more about practical applications in computer courses. At the same time, students should be guided to take the knowledge imparted as a starting point rather than a key point. The teacher needs to understand the professional students who teach computer knowledge. The computer teachers in many colleges are generally undergraduate or graduate students who graduate from colleges and universities, and the knowledge structure is relatively simple. There is not much understanding and research on computer science. When imparting knowledge, it is only simple to hand over computer knowledge from the teaching materials to the students, and does not understand the needs of the students. Therefore, it is very important for the teachers to communicate with the professional teachers in time.

With the continuous development of society, talent is the main demand of society. Learning knowledge is not the key point. It is the focus of our study that we can use the knowledge we have learned to solve the problems we encounter in our work and life. It is necessary to improve the training of Applied Talents in computer science and technology through innovation and reform. The improvement of comprehensive ability is the important ability to help students make continuous progress in their future social life. Open up the blue sea of professional settings, so that the professional market for a subdivision of demand, rather than the entire field of computer applications. This enables students to fully utilize their limited capabilities in a limited target position, and the school's effective resources can be fully applied. The employer can give more resources to support after discovering that it has a professional set directly for the company. Learn and learn from the advanced experience of cultivating applied talents at home and abroad, open up new ways of training applied talents, and train students into high-quality applied talents that meet the needs of society.

The traditional courses of computer specialty in Colleges and universities are usually based on basic theories. For example, teaching JAVA language mainly focuses on the grammar of JAVA language, and less involves the operation in practical application, such as the specific JDK operation platform. This makes it difficult for students to apply the knowledge they have learned in their study and in their work after study. Develop students' ability to develop software systems. In the fifth semester, three weeks of computer science and technology comprehensive internship will be arranged. Through cooperation with off-campus software training institutions, students will be assigned to off-campus training structure internship. Let the students complete the software project according to the development process of the software company. Through the project actual combat, make the students have high practical operation skills and make them more competitive in the job market. With certain professional expertise, you can also attract outstanding students to participate directly in the research projects of relevant professional teachers. Let students engage in tasks such as data mining, data processing, statistical analysis, algorithm design, and programming. The effect of the training model for information and computing science professionals is shown in Figure 2. Of course, the cross-professional union requires the support of higher education institutions, including the basic conditions of teachers, financial resources, teaching management, etc., to create a good educational environment for inter-disciplinary joint training of talents.

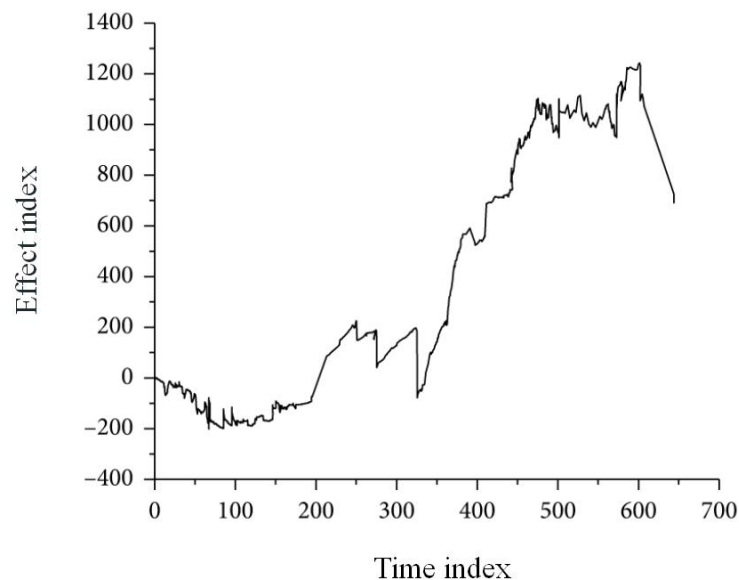


Fig.2. Implementing Effect of Talents Training Model for Information and Computing Science Specialty

4. Conclusion

The application of computer technology needs to be studied in practice, and the learning process itself is a self-improvement and self-induction. There are many kinds of computer science and technology talents. The cultivation of applied talents is a long-term process, imperative and of long-term significance. To cultivate the innovative application ability of computer majors, we should not only confine ourselves to classroom teaching, but also attach importance to students' extracurricular activities. In addition to the joint efforts of the school and students to participate in internships related to their specialties, some activities inside and outside the school can also enhance students' innovative and applied abilities. Through school-enterprise cooperation, students are encouraged to participate in practice innovation competitions to improve students' awareness of science and technology innovation and practical ability. By reforming the practical teaching of computer science and technology, the level of personnel training has been improved, the employment opportunities of students have been improved, and the seamless connection between students and employment units has been realized. Computer application is the deductive process of applying theory to practice, and computer science is the induction process from application to

theory. Computer science and technology talents are divided into research, engineering and application, and the number of applied talents is huge and the scope is wide. The classification and training of the specifications is imperative, and the significance is far-reaching and significant.

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