

Research on the Training Model and Evaluation Model of Innovative and Entrepreneurial Talents in Computer Major of Applied Undergraduate Colleges in the Big Data Era

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Abstract: Big data is developing rapidly and has penetrated into all walks of life. People dig data through computers, and put forward higher requirements for the training of applied computer talents. Therefore, this paper puts forward the research on the training mode and evaluation model of innovative entrepreneurship talents in Applied Undergraduate Colleges and universities in the era of big data. This study aims to build a model system for training and evaluating innovative and entrepreneurship talents with the aim of cultivating applied vocational abilities. It integrates curriculum with vocational skills training as the main line, further strengthens practical teaching, and clarifies the tasks and assessment schemes of practical teaching links such as experiment, practice, practical training and on-the-job practice. It has practical value and significance.

Keywords: Big data; Undergraduate colleges and universities; Computer specialty; Innovative talents

1. Introduction

In the early days of computer application, people only used computers to deal with simple numerical problems. When we apply computer to solve problems, we usually use the following steps: first, we transform the actual problem into a mathematical model, then design the corresponding algorithm for the model, and finally compile a program to debug to solve the problem. Because of the backwardness of computer technology at that time, most of the objects designed were simple models, and data structures were not needed to be paid attention to. However, with the continuous development of computer technology in recent years, and the popularization of its application, computer non-numerical computing becomes more important. According to a survey, nowadays non-numerical computing problems occupy 86% of computer time. The prominent manifestation of these problems is that the data structure is complex, and the relationship between data structures is difficult to express by digital relations. This requires computer operators to have a high professional quality of data structure to deal with these problems [1-3]. Therefore, the course of data structure emerges as the times require. It is a subject that studies the operation objects (data elements) of computers and their relations and operations in programming problems of non-numerical computing. It belongs to the core basic course of computer and has an irreplaceable position.

2. Practical Teaching Reform Scheme of Data Structure for Applied Undergraduate Computer Major

2.1. Reform of curriculum system

The construction of curriculum system can decompose the curriculum system according to the needs of jobs and form the results of job group task analysis; classify the job group tasks to form vocational ability needs; then reverse the curriculum system structure according to job tasks and vocational ability needs; finally, construct the project-based curriculum system and professional talent training objectives. According to the characteristics of computer specialty, we can draw lessons from the "3 + 1" model of outstanding engineers. The time of internship and graduation design in enterprises should be about one year. There should be unified centralized internship in the lower grades, and separate internship in different types of enterprises and posts in the higher grades [4-6]. In addition, the project curriculum system based on work process can be constructed. To realize the docking of curriculum structure and post tasks, break the concept of setting curriculum system according to the logic of knowledge itself, and change it into setting curriculum system based on work tasks; to realize the docking of curriculum content and professional competence, to

break the traditional curriculum model of selecting curriculum content according to the integrity of knowledge, and to change it into selecting curriculum content based on the cultivation of professional competence.

2.2. Teaching content

According to the knowledge characteristics and professional development requirements of computer related majors, the teaching contents are changed in the following aspects.

Focus on consolidating students' theoretical basis, cultivating students' logical thinking ability, streamlining professional courses as far as possible, and reducing theoretical inculcation to develop case-based teaching.

Studying the teaching content, adjusting the proportion of class hours and inclining the class hours to practical teaching; increasing the number of comprehensive and designed experiments in practical teaching so as to make more curriculum design links; emphasizing the requirement of innovative skills education in the curriculum outline of each course, the connection between courses and the curriculum. In terms of content, more attention should be paid to the cultivation of Vocational ability.

Gradually move the teaching center to the part of extra-curricular homework. The content of classroom teaching plays a key role in improving students' self-study ability and cultivating lifelong learning habits.

Establish the concept that practice on campus serves for off-campus practice, introduce real cases of enterprises into practice teaching, make the practice environment on campus more consistent with the actual position of enterprises, train students according to the professional requirements of enterprises, and enable students to enter the role smoothly after entering the off-campus practice enterprises [7].

Closely cooperate with enterprises. In the graduation thesis of students, the selection of topics and the opening of topics should emphasize that the topics are directly related to the post work; a mechanism should be established to guide the students by both the school tutors and the enterprise tutors in the specific implementation process; and the principle of practicability should be taken as the principle in the graduation design results.

2.3. Teaching methods

In theory teaching, the traditional cramming method can no longer meet the needs of personnel training; in practice teaching, the traditional one-person-one-machine computer practice teaching method with teachers' hands cannot meet the training requirements of outstanding engineers, so the reform of teaching methods is very necessary.

Change the evaluation system of curriculum assessment. The traditional final examination system has seriously affected the quality of teaching. The reform of the curricu-

lum assessment system avoids the traditional mode of determining the results of a test paper. It can promote students' whole learning process and form good learning habits.

Introducing case-based teaching in an all-round way. Traditional teaching mode is difficult to mobilize students' enthusiasm for learning. The knowledge in books is seriously out of touch with the practical application, and it is unable to cultivate students' practical ability and innovative spirit. Therefore, we should try to introduce the practical cases of enterprises into the teaching, help students learn how to use the theoretical knowledge of books to solve practical problems, and propose innovative solutions. The key content of this part is to establish a case base which is synchronized with the needs of enterprises, rich in content, close to practical application and in line with the actual situation of students.

Strengthen the interaction in the teaching process. Changing the one-way transmission of information in traditional teaching, emphasizing students' full participation and mobilizing their enthusiasm, more effective teaching methods such as promoting inquiry, discussion and participation are adopted in classroom teaching.

2.4. Cooperation mechanism and big data sharing of school enterprises

School-enterprise cooperation training mode and big data sharing should develop towards institutionalization, diversification, scale and customization.

Institutionalization. Establish a sound school-enterprise cooperation system and a large data sharing system to protect the legitimate rights and interests of schools, students and enterprises in a standardized manner, and make the long-term and healthy development of school-enterprise cooperation. The evaluation of students' practice process and results is more scientific and comprehensive.

Diversification. Because students are trained in different directions, the types of enterprises need to be diversified, internship positions should be more selective, and diversified corporate culture will have more impact on students.

Scaling up. With the improvement of students' practical ability, professional level and innovative ability, the units of students' future internship and employment should have a larger scale and seek personal career development path on a higher platform.

Customized training. In order to enable students to integrate into enterprises more quickly, take the lead in career development, and to enable students to enter more excellent enterprises, it will be an important part of school-enterprise cooperation for students to customize training for enterprises in advance during school.

2.5. Cultivation of students' quality and application ability

Strengthen functional literacy and application ability training. In order to improve students' application ability and social adaptability, we can add vocational training courses such as "time management", "communication and cooperation", "foundations of entrepreneurship", "interview skills" and "professional front lectures" to the teaching content. At the same time, we can also train innovative entrepreneurs in Colleges and universities. Knowledge level, personal quality, personal ability and entrepreneurial initiative are the main criteria affecting the evaluation of innovative and entrepreneurial talents. In addition, a sound system should be established to encourage students to actively participate in extracurricular innovative projects and professional competitions. Through guiding students to apply for innovative entrepreneurship projects, analyzing projects, completing projects, writing technical documents and other series of work to improve students' innovative ability and application ability; through guiding students to invest in all levels, all kinds of professional competitions, cultivate students' comprehensive quality, competitive consciousness, team spirit. Even if the conditions are appropriate, guide students to start their own businesses.

3. Conclusion

It is a systematic project to improve the management level of computer practice teaching in Application-oriented Undergraduate Colleges and universities in the era of big data, which requires the school to actively promote as an important work, synchronous follow-up of laboratory software and hardware environment, the positive efforts of the experimenters themselves, and the whole society including the government, enterprises and society. In this way, we can better improve the computer practice teaching environment of Applied Undergraduate Colleges and universities, enhance the overall quality of computer experimenters, and further improve the quality of College Students' talent training and the driving force of economic and social development. The goal of this

project is to introduce the Internet information acquisition engine in the era of big data. Establish the training model and evaluation model of innovative entrepreneurship talents. Take "Satisfaction of innovative entrepreneurship education", "entrepreneurial consciousness", "social impact of innovative ability", "social impact of economic benefits" as evaluation indicators, collect relevant data from all media, multi-dimension and cross-time, and collect relevant data for students' innovative entrepreneurship and application ability. Longitudinal and comprehensive evaluation was carried out.

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