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Research on Innovation and Entrepreneurship Education System of Computer Science in Applied Universities

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Abstract: In the traditional education model, teachers focus too much on the accumulation of knowledge. The students' learning only stays in the memory. This mode of education served a good purpose in the past, but with the development of the times, this approach can no longer meet the needs of the ever-changing society. In this historical background, innovation and entrepreneurship education is born, and this education mode has the effect of integrated education, which is an important way to organically integrate value, ability and knowledge. Through this education mode, it can not only strengthen students' professional foundation, but also make them better adapt to the computer industry. In this paper, we will take computer science majors in applied colleges and universities as an entry point to analyze how to carry out innovation and entrepreneurship education, hoping that it can play an enlightening role.

Keywords: Computer Science Major; Innovation and Entrepreneurship Education; Applied College

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1. The challenges of innovation and entrepreneurship education in computer science

1.1 Backward education mode

At present, schools usually adopt the combination of professional elective courses and entrepreneurship competition to carry out innovation and entrepreneurship education. Although computer majors have added elective courses and practical courses in innovation and entrepreneurship education, but in the process of teaching, schools often still adopt the traditional education mode, which makes innovation and entrepreneurship education lack of systemic and integrity, and greatly reduces the efficiency and quality of teaching.

1.2 Lack of teaching resources

In the process of continuous development and deepening of innovation and entrepreneurship, although schools have increased the investment in innovation and entrepreneurship education resources, these investments still cannot meet the needs of innovation and entrepreneurship education, and innovation and entrepreneurship education programs such as teachers, incubation bases and practice programs are constrained by funds, so it is difficult to be well developed. At the same time, most of the teachers engaged in innovation and entrepreneurship education are from professional fields. These teachers are well-educated and usually have good research and teaching abilities, but they are rarely involved in innovation and entrepreneurship education. There are two reasons for this result: First, as the times move on, new methods and applications are updated and iterated rapidly, and even those teachers with rich working experience can hardly grasp the changes in the market. Second, in general, professional teachers usually lack the experience of participating in product development and entrepreneurial practice. Therefore, schools can only carry out courses according to the existing teachers and selectively cultivate innovation and entrepreneurship projects according to the actual incubation conditions. Under this education model, innovation and entrepreneurship education has certain limitations and its efficiency is greatly reduced.

1.3 The goal of innovation and entrepreneurship education is not clear

According to the author's observation, as of now, innovation and entrepreneurship education lacks both top-level design and clear educational goal setting. Computer science students are receiving innovation and entrepreneurship education, while general education is the main focus, without significant professional characteristics.

2. Strategies for cultivating innovative and entrepreneurial talents in computer science

2.1 Establishing innovative courses and cross-disciplinary courses

Compared with the traditional education mode, innovation and entrepreneurship education pays more attention to practical training, therefore, some teachers focus on practice but lack attention to theoretical knowledge in the process of teaching. But as the saying goes, practice without theory is blind practice, and theory without practice is empty theory. In the process of innovation and entrepreneurship education, theoretical education is an indispensable part of it. However, it is necessary to pay attention to the fact that teachers in the theoretical teaching courses should not read from the text, but should innovate the existing theoretical education in the light of the actual situation, and integrate some concepts of innovation and entrepreneurship education into it, so that the courses can be flexible and diversified. For example, in the traditional compulsory general education courses, teachers often adopt the way of indoctrination to teach, and in such classes, students lack the proper sense of participation, which leads to The efficiency and quality of their learning is significantly reduced. In order to change this phenomenon, innovation labs can be set up in schools to teach theoretical knowledge in a fun and educational way. In this way, students' motivation to learn can be significantly increased. In addition, teachers can improve the professional training program according to the actual situation of the school, and try to achieve "cross-disciplinary, science and practice integration" so that students can develop in multiple directions and dimensions, and after graduation, they can better face the future work [1].

2.2 "Internet+" innovation and entrepreneurship education resource sharing mode

In the traditional innovation and entrepreneurship education, it usually generates a lot of expenses and puts a great pressure on school finance. Based on this, innovation and entrepreneurship education not only requires schools to reform teaching contents and processes, but also needs to improve teaching methods according to the actual situation, so as to solve the obstacle of shortage of resources for innovation and entrepreneurship education. In order to let innovation and entrepreneurship education be carried out smoothly, each school can actively open a network education platform to complete the mutual sharing of resources for innovation and entrepreneurship education. In this way, education costs can be greatly saved. In the Internet education platform, it should be possible to combine various teaching resources on innovation and entrepreneurship, including but not limited to: entrepreneurial services, corporate experts and entrepreneurial financing practices, etc. It is a comprehensive and multi-dimensional way to train talents. It is worthwhile to pay attention to the fact that innovation and entrepreneurship education is not only for students to master the relevant professional skills, but also to cultivate their innovation and entrepreneurial abilities. In order to achieve this goal, students should master theoretical knowledge and also participate in some practical computer engineering projects to transform abstract theories into actual productivity through practice, but many students do not know how to participate in social practice. Therefore, the relevant departments can gather all kinds of innovation and entrepreneurship resources in the Internet platform to build a bridge between students and enterprises.

2.3 Cooperation between schools and enterprises to cultivate professional talents

In the phase of "invite in", schools should hire experts from enterprises, so that they can use their rich front-line work experience to guide computer students effectively. However, it is worth paying attention to the fact that although these corporate talents have experience in the field, they are not educated as teachers and generally lack teaching ability. In the process of teaching, it is difficult to arouse students' interest in learning. Therefore, the school leaders let the enterprise talents cooperate with the professional teachers to complement each other's strengths and form a professional teaching team. Then, according to the actual needs of the market, the practical training teaching is launched. It must be noted that the computer market is complex and changing, in the process of practical training, schools and enterprises should never be limited to the immediate market situation, but should fully carry out research and speculate on the computer market in the next five or even ten years, so as to ensure that practical training education can meet the actual needs of the market in the future. In terms of faculty construction, the relevant leaders can improve the salary level of the school according to the actual situation of the school, so as to attract more "highly educated" and "highly qualified" talents to enter the faculty, so that they can better serve the students [2].

2.4 Integrating innovation and entrepreneurship education with professional courses

Innovation and entrepreneurship education should not only enable students to master the knowledge related to innovation and entrepreneurship, but also cultivate students' skills to analyze and solve problems with what they have learned. In the past innovation and entrepreneurship education, the teaching of professional courses and innovation and entrepreneurship education are usually distinct [3]. In order to change this situation, computer science teachers should integrate innovation and entrepreneurship courses with professional courses in the process of teaching: First, in the general education course of innovation and entrepreneurship, professional courses that are closely related to the industry process should be used as much as possible. For example, the rapid development of computer technology, the entrepreneurial cases of famous computer companies, etc., so that students can draw nutrients from the history of computer development and refer to it with their own innovative entrepreneurial spirit, so as to open up the way for their subsequent work development. Secondly, when teaching professional courses, each school should integrate the knowledge of innovation and entrepreneurship education into them, and when formulating the teaching steps, teachers should repeatedly scrutinize them, so that the knowledge of

3. Conclusion

All in all, for the time being, innovation and entrepreneurship education is an indispensable part of computer science majors. In the process of teaching, teachers should actively implement this education mode, and continuously improve students' entrepreneurial awareness and innovation literacy, so that students can better face their future work, achieve success in life, and promote China's economic development.

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