Research on the Innovation of Science and Engineering Students Entrepreneurship Education

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Abstract. Science and engineering college students, as an important part of entrepreneurial practice, should be a positive practitioner of entrepreneurial behavior; however, due to the traditional concept and other factors, the practice of entrepreneurship is not optimistic. This paper starts from the positive influence of entrepreneurial awareness education on entrepreneurial behavior, analyzes the shortcomings of entrepreneurial awareness education in science and engineering colleges, analyzes and discusses the ways to carry out entrepreneurial awareness education.

Introduction

"2015 State Council Government Work Report" has put forward a policy that "to promote entrepreneurship employment. Adhere to the employment priority to entrepreneurship to promote employment. To strengthen employment guidance and entrepreneurship education, the implementation of good business students to lead the plan to support the emerging industry entrepreneurship." Under this background, colleges and universities are paying more attention to the entrepreneurship education. Among which, as a driving force in the process of entrepreneurial factors, the entrepreneurial consciousness plays an assignable role in the entrepreneurial practice. However, utilitarianism trend, the general phenomenon of lack of attention in the hidden education of entrepreneurship, and the lack of inherent motivation of entrepreneurship have restricted the occurrence of college students' entrepreneurial behavior. Therefore, it is of great practical significance to strengthen the education of college students in colleges, especially those of science and engineering students, to help them establish their correct entrepreneurial consciousness and use their professional specialty to carry out entrepreneurial practice.

On the positive influence of Strengthening College Students' Entrepreneurship Education in science and Engineering Universities

Science and engineering college students is one of the important subjects of entrepreneurial practice. The development of college students' education through entrepreneurial awareness is conducive to transforming the concept of entrepreneurship of science and engineering students and enhancing their comprehensive quality, so as to promote the transformation of scientific research achievements and further promote the creation of entrepreneurial behavior.

The effective embodiment of "people oriented" Educational Idea. Entrepreneurial awareness refers to the individual consciousness tendency which plays an activity role in the entrepreneurial process, individual motives, beliefs, interest embodied. As a key way to form a sense of entrepreneurial awareness, entrepreneurial awareness education has a positive effect on the cultivation of college students' autonomy, risk consciousness and cooperation consciousness, so as to promote the enhancement of college students' learning behavior and enhance the self-quality. At the same time, strengthen the cultivation of entrepreneurial awareness can effectively improve the
foundation of student entrepreneurship, and promote employment by entrepreneurship.

Promote the market transformation of science and engineering students’ scientific research results effectively. According to the statistics released by the education sector, China's transformation rate of scientific work in college is less than 20%, the patent implementation rate is less than 15%. Science and engineering college students have a wealth of professional knowledge and technology patents, more entrepreneurial advantages, and they should bear the main force in the practice of entrepreneurship. However, due to the existing professional constraints in teaching system, more of the curriculum content in science and engineering college's daily curriculum were focused on professional courses, and lack of cultivating humanities courses. This affects the formation of entrepreneurial awareness of science and engineering college students and the development of entrepreneurial practice. The survey shows that a considerable number of science and engineering students are interested in entrepreneurship, but the lack of entrepreneurial awareness, entrepreneurial capacity is not comprehensive and other reasons have restricted the practice of science and engineering students’ entrepreneurial behavior. Under the background of "Innovation and Entrepreneurship", colleges and universities, especially science and engineering colleges should take the initiative to pay attention to the realistic needs of college students' entrepreneurship, attach importance to the cultivation of entrepreneurial consciousness, carry out education of entrepreneurship consciousness actively and promote the market transformation of scientific research achievements. These behaviors will not only enhance the social and market recognition of university scientific research, but also help to promote the emergence of college students entrepreneurial behavior, lessen the impact of the financial crisis on employment by entrepreneurship and driving employment.

Further promote the occurrence of college students’ entrepreneurial behavior
Entrepreneurial awareness is the embodiment of students' entrepreneurial personality, which covers the multi-faceted embodiment of college students' individual needs, entrepreneurial interests and so on. As an necessary quality of the entrepreneurial practice of science and engineering students, it is an important driving force of entrepreneurial activities, which directly determines the occurrence of entrepreneurial behavior. Colleges and universities should help students to establish a good entrepreneurial awareness, enhance students' intention to start their own businesses, and promote the unity of "knowledge and understanding" among college students in entrepreneurship education and practice, so as to promote the occurrence of entrepreneurial behavior.

Difficulties and Problems in the Development of Entrepreneurship Education in Universities of Science and Technology
With the concept of "Innovation and Entrepreneurship", college students' entrepreneurial enthusiasm has risen, but because of the traditional view, the degree of emphasis on entrepreneurial awareness education is not enough, the main body of education is not perfect, and the practice of entrepreneurial behavior has become a serious challenge, and these views will impact on science and engineering college students entrepreneurial awareness and entrepreneurial behavior directly, affect the number and quality of entrepreneurship seriously.

Due to the traditional concept, students have a cognitive bias toward "entrepreneurial". In the traditional practice of education, colleges generally lack the cultivation of students' innovation, coupled with the influence of the existing cultural traditions and family concepts, the students generally have misunderstanding of entrepreneurship deviation, mistakenly believe that entrepreneurship is the substitute choice of employment. Which has a negative attitude towards entrepreneurship, entrepreneurship awareness education to carry out the existence of resistance. There are students who have a wrong understanding of entrepreneurial awareness, they took the entrepreneurial awareness is the same as the enthusiasm of entrepreneurship. At the same time, there exists the problem that college students generally are blindness of entrepreneurship, that is, follow others' steps, staring at popular industry, not combined with their actual ability to lead to impulsive entrepreneurship, this misunderstanding also makes college students in the business process Entrepreneurial expectations, not concerned in the process of the entrepreneurship, their
own ability is the key point, easily lead to failure of entrepreneurial behavior, leading to psychological frustration and entrepreneurship and related entrepreneurship negative emotions, restricting the effective development of entrepreneurial awareness education.

**Entrepreneurial education started late, colleges are lack of attention, training system is not perfect.** In the existing education system, exam-oriented education still plays an important role in the impact. With the development of economical society, colleges pay more and more attention to the importance of developing college students' personality and creativity of entrepreneurship education. But the university's focus on entrepreneurship are often for the education of skills, while ignoring the cultivation of entrepreneurial awareness. In addition, there is still a lack of emphasis on the development of entrepreneurial education in colleges and universities, and the degree of attention is still insufficient. This leads to the lack of comprehensive educational idea in the educational system of the existing entrepreneurial consciousness and the equivalence of the entrepreneurial consciousness and the sense of employment. Single education style, mainly depends on the first classroom theory professor, lack of practical participation; teachers power are weak, few college full-time entrepreneurship education teachers and other serious problems, there is a lack of educational resources and effective provision of intellectual could not be supported.

The subject of entrepreneurial awareness of the main education is single, business participation is not high, lack of cooperation between schools and enterprises. In the process of entrepreneurial awareness education, in addition to the theoretical teaching of the classroom, the use of entrepreneurial resources and social participation in the development of college education awareness education has an important complementary role. On the one hand, due to professional characteristics, science and engineering students has fewer opportunities to practice with theoretical knowledge, and this is not conducive to internalization of entrepreneurship and entrepreneurial effective practice. On the other hand, in the practice of educating people, colleges and universities are paying more attention to the practice of professional knowledge and business exchanges and cooperation, while ignoring the enterprise as an economic entity in the practical opportunities, financial support and other aspects of the positive role of entrepreneurship education. In short, the existing entrepreneurial awareness education is still relatively closed, the main education is still a single teacher-based, social participation is not high, so that entrepreneurship education is still locked in the "ivory tower", students can not really participate in social life, and it is not conducive to the transformation of entrepreneurial awareness to entrepreneurial practice.

**Exploration on the Methods of Innovation and Entrepreneurship Education in Universities of Science and Engineering**

Conditions of college students, how to effectively carry out entrepreneurial awareness education, cultivate college students' entrepreneurial awareness and entrepreneurial ability, and to meet the challenges and difficulties in the development of education are the key problems that colleges should considered in entrepreneurship education.

Pay attention to humanistic literacy training, establish a correct business awareness. As a major place for college students to study and live, colleges and universities are also important social places. Focusing on the lack of humanities cultivation of science and engineering colleges, colleges should strengthen the entrepreneurial education and practical education with positive guidance. On the one hand, it is conducive to promoting the formation of entrepreneurial atmosphere in colleges, build entrepreneurial platform and inform a great background of entrepreneurial behaviors; on the other hand, actively guide students to participate in entrepreneurial awareness, education curriculum, through the establishment of entrepreneurial awareness, entrepreneurial ability and other knowledge of professors to help students change the wrong cognitive and cognitive bias, establish a correct, suitable for the correct understanding of the actual business. While actively guiding and establishing the correct sense of entrepreneurship, colleges and universities can set up their own business centers, organize entrepreneurial planning competition, etc., enrich the type of entrepreneurial practice, so that students can inform the entrepreneurial awareness in the course of practice, the formation of entrepreneurial experience, from practice to consolidate and the development of entrepreneurial
awareness, and through the accumulation of their own practical experience, and constantly improve and optimize their entrepreneurial ability.

**Strengthen the training system to build, smooth business transformation channels.** How to make the creative passion and entrepreneurial thinking of college students into entrepreneurial practice successfully is a key issue which science and engineering college education should be focused. Colleges and universities should strengthen the emphasis on entrepreneurial practice, the cultivation of entrepreneurial awareness education, and actively learn from the experiences and methods of successful entrepreneurial awareness education at home and abroad, and combine their own actual situation to develop their own education and training system. As a direct access channel and platform for college students' entrepreneurial awareness knowledge and information, college entrepreneurship awareness courses play an important basic role in the formation of entrepreneurial consciousness. Therefore, we should actively improve the existing curriculum system in colleges to promote the rationalization of curriculum. First of all, the curriculum should fully reflect the practical needs of the formation of entrepreneurial awareness, respect and give full play to the status of college students in the activities of higher education, improve the acceptance of theoretical courses and play the desired effect. Secondly, college teachers should change the traditional concept of education, so that classroom education will not only be the way of access to subject knowledge, but also the channel for students to qualified themselves. To provide effective help and guidance of professional teachers, to provide effective intelligence support and market information; to strengthen the "production - learning - research" cooperation, make full use of science and technology colleges and universities of science and technology research and development advantages, to promote the mentor to lead the university students into the laboratory, by increasing practical experience cultivate entrepreneurial awareness and promote the creation of entrepreneurial activities.

**Improve school-enterprise cooperation and mutual benefit, improve the entrepreneurial practice.** Entrepreneurship is a very practical issue. Therefore, combining theory and practice in the process of entrepreneurial awareness education should be strengthened in the science and engineering colleges. Enterprises are an important platform for entrepreneurship, colleges and universities should strengthen communication with the enterprise, so that entrepreneurial behavior falls into the real market. Colleges and universities can employ successful entrepreneurs as guest lecturers or in other forms, and gradually form an "academic + practice" multi-level teachers, enrich the existing entrepreneurial awareness education curriculum form and content. The lack of funds has become the first major objective factor that causes college students' ignorance consciousness. Through the use of existing expert resources, colleges and universities should help the students to form the excellent innovation content evaluation guidance, guide students face to the community, attract government, enterprise venture capital, so colleges can provide funds for the project to promote the real innovation into the practice of innovation, and in the process of gradually cultivating the needs of the market to meet the entrepreneurial awareness, but also lay the foundation for the further development of the project. While paying attention to the social enterprises, colleges and universities should also notice that non-governmental organizations play an important role in the formation of college students' entrepreneurial consciousness. Entrepreneurial associations and other non-governmental organizations are organized by the entrepreneurial enthusiastic who has been engaged in entrepreneurial attempt and sharing the same characteristics, it is a homogeneous group, they have consistency for the same goal. Colleges and universities can invite such non-governmental organizations to share experience, because the consistent level and objectives, they are more likely to lead to identity, and this will help students to form a correct sense of entrepreneurship, and correct the existing subjective error awareness.

**Conclusion**

Pioneering consciousness as necessary quality of entrepreneurial practice, from the construction of the external environment, cultivating system and the university-enterprise cooperation to improve level of entrepreneurship practice, is conducive to actively carry out entrepreneurship education
consciousness, in order to impel the emergence and development of science and engineering college students’ consciousness. But how to develop awareness of entrepreneurship education path innovation combined with their own entrepreneurship education in colleges, still needs to be based on their own to explore colleges and universities.

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