Thoughts on the Cultivation of Innovative and Entrepreneurial Talents in Colleges and Universities Based on the "Craftsman Spirit" Based on Big Data Analysis

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Abstract. Craftsmanship is of great significance to the development of the country, enterprises and individuals. Starting from the connotation of "craftsman spirit", this paper uses big data technology to analyze the necessity of introducing innovative talents with "craftsman spirit" into the talent training of colleges and universities. By training high-level innovative teachers with the spirit of craftsmen and building characteristic campus culture, the cultivation of innovative talents for entrepreneurship and the spirit of craftsmen should be organically combined.

Keywords: Innovative and Entrepreneurial Talents, Spirit of Craftsmen, Big Data Analysis

1. Introduction

College students are the builders of the future society. Colleges and universities are the main position to train college students[1]. Therefore, under the new era background of "mass entrepreneurship, innovation" and relying on the national policy platform, colleges and universities should cultivate college students with the "craftsman spirit" of pursuing excellence and integrating Taoism with technology[2,3]. At present, it is also an important period for China to change from a "big manufacturing country" to a "strong manufacturing country", which means that there are high requirements for all aspects of enterprise production, but also a large number of technological and innovative talents[4]. Colleges and universities are closely related to the development of regional economic industry. They are also an important position for training large-scale craftsmen. They should incorporate the spirit of craftsmen into education. The connotation of craftsmanship spirit is similar to the purpose of cultivating talents in colleges and universities[5]. Integrating craftsmanship spirit into the cultivation of innovative talents in colleges and universities is not only for the purpose of nurturing large-scale craftsmen, but also an important way to improve the overall quality of colleges and universities[6].
2. Craftsman spirit and innovation and entrepreneurship

2.1. Craftsman spirit
Craftsmanship is a kind of professional spirit, which can prove the highest level of a country's manufacturing industry. Craftsmen refer to the craftsmen who have acquired super-high skill level in a certain field. Craftsmen's spirit is developed from craftsmen's honor. It is a kind of professional ideal, spirit and cultural characteristics. With the development of society and the changes of the times, the spirit of craftsmen has undergone great changes, from the original low-level craftsmanship to the high-level spiritual culture of "integration of human and art", which is reflected in the pursuit of more rigorous, meticulous, more excellence, to create a real "craftsmanship".

2.2. Innovation and entrepreneurship
Innovative entrepreneurship refers to the entrepreneurship activities based on technological innovation, product innovation, service innovation, etc. Innovation is the characteristic of innovation and entrepreneurship, and entrepreneurship is the goal of innovation. Innovation and entrepreneurship talents are basically those who possess double creative consciousness, double creative thinking, double creative ability and double creative spirit, and can achieve results.

With the enlargement of college enrollment scale, more and more college graduates are coming. How to solve the employment of college students has become a social problem. Most universities lack systematic and comprehensive entrepreneurship education, and it is difficult for college students to acquire entrepreneurship skills. Most students have the problems of insufficient social experience and communicative competence, insufficient risk assessment and preventive measures, insufficient motivation for struggle and development stamina, etc. The entrepreneurship work often falls by the wayside, leading to the failure of entrepreneurship.

3. Necessity of developing talents training in colleges based on craftsman spirit

3.1. There are still many problems in the cultivation of innovative talents in colleges
At present, for most colleges and universities, the majors set up are basically the same as those of other undergraduate colleges and universities, but they generally lack their own characteristics, and the quality of the trained students is difficult to match perfectly with the social needs. Most universities still adopt the traditional teaching mode of "teacher talk, student listen" to teach. This kind of teacher-centered and textbook-centered teaching mode is definitely out of date at present. In this mode, students lack thinking ability and innovation consciousness, and simply rely on the output of teachers to carry out memory learning. The students thus trained are out of touch with social needs.

3.2. "Craftsman Spirit" points out the direction for the cultivation of talents in colleges
Talents should be educated and trained through schools. The cultivation of talents in colleges and universities should be market-oriented and employment-oriented. Colleges and universities should analyze the problems, find the right orientation, cultivate students' professional skills, and at the same time, shape students' professional spirit with "craftsman spirit". Facts have proved that students with higher professional knowledge and skills and excellent craftsmanship are more popular in employing units and have more promotion opportunities than others. The acceptance of graduates in employing units represents the level of talent cultivation in colleges and universities, so as to achieve the sustainable and good development of colleges and universities.

3.3. "Craftsman Spirit" points out the direction for the cultivation of talents in colleges
"Craftsman Spirit" and innovative entrepreneurship go hand in hand, that is, they are interrelated, unified and complementary, as shown in Figure 1 below. The spirit of craftsmen supports the spirit of innovation and entrepreneurship, and the spirit of innovation and entrepreneurship is driven by the spirit of craftsmen. Innovation and entrepreneurship must firmly grasp the experience of predecessors,
and on this basis, re-combination, innovation and entrepreneurship links the past and the future, which is the spirit of craftsmen. "Craftsman Spirit" strives for excellence in work and perseveres in pursuit of the ultimate spiritual concept and quality of work for products, which is also the personality characteristic of innovative entrepreneurs.

\[ "Craftsman Spirit" \]

\[ \text{Innovative entrepreneurship} \]

**Figure 1.** Relationship of “Craftsman Spirit” and innovative entrepreneurship

4. **Training path of innovative and entrepreneurial talents in colleges based on "Craftsman Spirit"**

4.1. *Integrate craftsman spirit into the teaching reform of innovation and entrepreneurship*

The teaching reform of innovation and entrepreneurship education in colleges and universities is the entry point to integrate the spirit of craftsmen. The reform of curriculum system is the basic way to realize the reform of innovation and entrepreneurship education and the core problem to be solved in innovation and entrepreneurship education. It is imminent to incorporate the spirit of craftsmen into the curriculum system of innovation and entrepreneurship and to give a certain amount of class hours. Therefore, the school should adjust the curriculum system, that is, to highlight the "craftsmanship" elements contained in the professional curriculum, and to open a general course of innovation and entrepreneurship with the story of skilled craftsmen at all times and in all countries as the carrier. To educate students on the basic knowledge of innovation and entrepreneurship culture, guide them to master the basic knowledge of innovation and entrepreneurship, and stimulate the initial awareness of innovation and entrepreneurship.

4.2. *Foster a team of innovative and entrepreneurial teachers with "Craftsman Spirit"*

To cultivate craftsmen with innovative and entrepreneurship ability, colleges should have a high-level innovative and entrepreneurship teacher team with "craftsman spirit". Strengthening the construction of innovative and entrepreneurship teacher team is the key to improve the effectiveness of innovative and entrepreneurship. Excellent innovative entrepreneurship teachers should not only impart knowledge, answer questions and solve puzzles, but also have sound personality quality and higher professional ideal. Firstly, young and middle-aged teachers with professional background should take on the teaching task of innovative entrepreneurship education as full-time teachers. Teachers should implant the concept of innovative entrepreneurship into the teaching process and consciously strengthen the cultivation of students' innovative entrepreneurship consciousness, innovative entrepreneurship thinking and innovative entrepreneurship ability.

Second, colleges should actively employ outstanding entrepreneurs and skilled craftsmen in society as part-time teachers and establish a stable contingent of part-time teachers engaged in innovative entrepreneurship education and teaching. Students face to face with excellent entrepreneurs and successful entrepreneurs can feel their ingenuity, experience the hardship and indomitable spirit of their entrepreneurship, and enhance their confidence, courage and passion for entrepreneurship. Third, colleges and universities should increase investment in innovation and entrepreneurship education, such as increasing the training of teachers in innovation and entrepreneurship education courses, organizing and participating in various kinds of innovation and entrepreneurship teaching training courses and seminars, and giving preferential policies in such aspects as reform projects, teaching incentives and so on.
4.3. Infiltrating "Craftsman Spirit" into campus environment culture

Colleges and universities should create a spiritual atmosphere for students through campus environmental and cultural activities, which not only enriches students' amateur cultural life, but also expands students' knowledge, and also plays a positive role in promoting the formation of their professional spirit. Therefore, colleges and universities should focus on creating campus environmental culture in innovative entrepreneurship education, regard "craftsman spirit" as an important carrier of campus environmental culture construction, make full use of this invisible educational resources, and run through the whole process of quality education for innovative entrepreneurs. Firstly, colleges should carry out campus environmental cultural activities with the characteristics of "craftsman spirit". The spirit of craftsmen and corporate culture should be integrated into all kinds of campus cultural activities. With its rich forms, it should be taught in the activities. In a special way of education, the spirit of craftsmen can be further disseminated and promoted.

5. Conclusion

Through the use of computer big data, this paper analyzes and considers the role of "craftsman spirit" in cultivating innovative and entrepreneurial talents in colleges and universities, and recognizes that the construction of an all-round, all-round, and full-participating innovation and entrepreneurship education method is an important topic for cultivating and improving college students' innovation and entrepreneurship spirit and ability, which is worthy of in-depth thinking and research. Colleges and universities should integrate the spirit of craftsmen with the education of innovation and entrepreneurship from the aspects of innovation and entrepreneurship teaching reform, teachers and campus environment culture, so as to cultivate more social applied talents.

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