

# Strategies for Cultivating College Students' Innovation and Entrepreneurial Ability

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**Abstract:** Employment is the first priority for survival today. With the increasingly severe employment situation, the employment problem of college students has become inevitable. In recent years, with the expansion of university scale, the number of university graduates is increasing rapidly, with an imbalance in the number, structure, and social demand of talents; moreover, there are significant differences between college students' employment quality and social expectations. In order to cultivate the innovation and entrepreneurship ability of college students, this paper provides new ideas, analyzes the factors affecting the formation and development of college students' innovation and entrepreneurship ability, as well as proposes several strategies to enhance its scientificity, pertinence, and effectiveness, which are conducive to further strengthening innovation and entrepreneurship education as well as cultivating innovation and entrepreneurship talents in colleges and universities, thus providing strong support for talent training and teaching reform in colleges and universities in China. It also provides a solid foundation for China's social innovation and entrepreneurship, along with innovative and entrepreneurial services to meet the needs of society, so as to improve the success rate of entrepreneurship among college students, effectively promote entrepreneurship-driven employment, and solve the employment problems of college students, which are conducive to China's rapid transformation into an innovative country and a powerful country in terms of human resources.

**Keywords:** Innovation and entrepreneurship; Quality of employment; Entrepreneurial ability; Training strategy; College students

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## 1. Introduction

Innovation-driven development strategy emphasizes taking innovation as the core and promoting development with excellent innovation achievements, rather than just focusing on theory and transforming innovation into industrial investment<sup>[1]</sup>. College students are different from entrepreneurs, migrant workers, and other groups. Innovation and entrepreneurship education is very important to the formation and development of enterprises. In 2016, the Ministry of Education put forward specific requirements for "innovation and entrepreneurship education"; namely, "innovation and entrepreneurship spirit," "innovation and entrepreneurial ability," "innovation and entrepreneurship awareness," etc. The development of higher education in China is inseparable from the talents needed by the society. The ultimate goal of China's higher education reform is to adapt to the new situation, new economy, and social needs. The reform and development of higher education can be divided into three periods: graduation distribution, employment guidance, and innovation. The distribution of graduates meets the requirements of examination-oriented education in the period of planned economy<sup>[2]</sup>. Colleges and universities carry out talent training in a counterpart manner, which reflects an elite education. Employment counseling is

considered free education under the condition of market economy. It is a professional education based on competition, which enables college students to look for suitable job opportunities in the market competition. In today's knowledge-based economy, the economic society has transformed from a resource-led society to an innovation-led society. However, the innovation ability of colleges and universities is closely related to the cultivation of innovation ability and creativity. First of all, it is important to solve the problems of popularization of higher education and difficult employment <sup>[3]</sup>. Second, it is necessary to adapt to the rapid development of science and technology, knowledge and information, as well as the training requirements of high-level talents in the period of economic transformation. The fundamental purpose is to cultivate college students' innovative consciousness and entrepreneurship; that is, innovation-centered "post entrepreneurship" education. In that sense, innovation and entrepreneurship education has become an inevitable choice for the reform and development of higher education.

## **2. Problems of college students' innovation and entrepreneurial ability**

### **2.1. Insufficient understanding of entrepreneurship**

According to research and survey results, 55% of college students regard entrepreneurship as their own entrepreneurship, 20% of college students regard entrepreneurship as their own career, and some college students believe that entrepreneurship does not include WeChat business, store-opening, and other businesses that are in fact a form of "entrepreneurship" <sup>[4]</sup>. Although college students have their own views on entrepreneurship, not everyone has the correct idea of entrepreneurship. It has been shown that 60% of college students are keen on starting enterprises. Some students are very interested in their career, but they are unwilling to start up their own career. Most people with entrepreneurial ideas are only thinking about them, without any action.

### **2.2. Unreasonable choice of college students' innovative and entrepreneurial business mode**

Due to the lack of social experience and human resources, college students pay more attention to the collective enterprise spirit represented by enterprises and joint venture with those of common interests. At present, enterprises not only seek personal success, but also the success of team entrepreneurship, which is much higher than that of a single enterprise. A comprehensive entrepreneurial team with market financing ability and research and development (R&D) ability is not only a prerequisite for successful entrepreneurship, but also for the development of high-tech enterprises <sup>[5]</sup>.

### **2.3. Lack of entrepreneurial motivation**

The motivation to encourage and support individuals to join enterprises and help them achieve their goals is known as entrepreneurship. Entrepreneurship is a prerequisite for a successful entrepreneur. It has been shown that college students' entrepreneurial motivation mainly includes preference for independence, personal economic status, achievement demand, and so on.

### **2.4. Lack of entrepreneurial spirit among college students**

Many people are still trying to enrich their lives for stability; the fear of failure causes people to avoid doing businesses. In a survey, given a choice of having a stable job or having their own company, 57% of students chose the latter. In fact, the contradictory mentality of college students is understandable. Due to the long-term exam-oriented education, they have developed the idea of "equating ability with scores." Hence, they lack practical work experience, unable to handle too much pressure in life, unwilling to achieve stability in life and work, as well as rely heavily on family and the society. They desire to look for a satisfactory, stable, and dynamic job <sup>[6]</sup>.

### **3. Analyzing college students' innovation and entrepreneurial ability**

The meaning of the term “innovation” is the process of abandoning the old things and creating new things, while its meaning in Latin is that people can provide unprecedented things. Innovation has two meanings: broad and narrow. The term “innovation” is widely accepted. It comes from the theory of economic development proposed by economist Joseph Schumpeter in 1912 <sup>[7]</sup>. Joseph Schumpeter’s innovation theory holds that enterprises can create new values by integrating new production factors and production methods into the production system, so as to promote economic development. Innovations can be made through products, technology, market, resource allocation, enterprise organization, and so on. In his book “Innovation and Entrepreneurship,” Peter Drucker pointed out that the subject of innovation is entrepreneurs, the interest value is the goal of entrepreneurship, and the innovative spirit is the entrepreneurial spirit. Marx held on to the belief that the main body of creation is not only limited to entrepreneurs, but also the historical progress and social development of all ethnic groups, such as the working class, excellent models, scientific and technological talents, and entrepreneurs. Marx divided innovation into three categories: scientific and technological innovation, technological innovation, and system innovation <sup>[8]</sup>. He regarded innovation as innovation in a broad sense. It is a way to meet the development needs of human society, solve the basic contradictions of development, and promote the all-round development of human society.

In economics and management, Chandler and Hanks asserted that entrepreneurship is a deep-seated feature that can distinguish between people who are outstanding in a specific work and ordinary people <sup>[9]</sup>. In psychological research, an entrepreneur’s self-efficacy is often associated with the entrepreneur’s ability. Entrepreneurial self-efficacy refers to the confidence of an entrepreneur in his or her entrepreneurial spirit and believes that he or she can be competent for different jobs and roles. It is important to clarify the connotation of college students’ innovative spirit and entrepreneurial spirit, distinguish it from ordinary ideas, and narrow the scope to be more specific and targeted. College students are different from previous entrepreneurs <sup>[10]</sup>. The State encourages college students to start their own business, which is not only “setting up a stall” or “doing a small business,” but also an innovation and valuable behavior. Based on existing literature and in consideration of the actual situation of the society, colleges, and universities in China, this paper defines the innovation and entrepreneurial ability of college graduates as the ability to use their own scientific and technological culture and social resources to create new things with economic, social, and cultural values <sup>[11]</sup>.

### **4. Analyzing the characteristics of college students' innovation and entrepreneurial ability**

The innovation and entrepreneurial ability of college students must conform to their own development laws and adapt to their own growth <sup>[12]</sup>. The innovation and entrepreneurial ability of college students has certain particularity, which cannot be compared with other groups, such as entrepreneurs. This paper analyzes the entrepreneurial environment, social background, characteristics, and the entrepreneurial stage of college graduates. The four characteristics will be discussed in the following sections.

#### **4.1. Modernity**

At present, China is accelerating the establishment of an innovative country and vigorously cultivating innovative talents. College graduates are the impetus for achieving this great strategic goal. Therefore, under the background of “mass entrepreneurship,” the entrepreneurial ability of college students should comply with the requirements of the development of the times and fully reflect their characteristics <sup>[13]</sup>. The modernity of university students’ innovation and entrepreneurship is the integration of the pursuit of ideals and beliefs with national development and social progress, as well as the strategic opportunity of meeting the needs of national scientific and technological innovation, knowledge innovation, and institutional

innovation. It is necessary to grasp the strategic opportunities of “Made in China 2025,” along with “Internet Plus,” actively accumulate, promote, and support accordingly, as well as foster the corresponding innovation and entrepreneurship <sup>[14]</sup>.

#### **4.2. Nationality**

A new round of business and technological innovation has brought earth-shaking changes to the global economy. Countries should formulate their own development strategies according to their own situation and development needs. The innovative consciousness of college students must possess Chinese characteristics. Adhering to the road of socialism with Chinese characteristics and strengthening the party’s leadership are the key to realizing the Chinese dream.

#### **4.3. Phased**

The innovation and entrepreneurship stage is not established overnight; rather, it is a gradual development process. It can be divided into consciousness awakening, initiation, development, maturity, and other stages, but each stage has its own innovation and entrepreneurship elements <sup>[15]</sup>. Compared with entrepreneurs, migrant workers, and other social groups, the time span of this group is only limited to two years after graduation; the corresponding entrepreneurship period is the “awareness” period. The innovation ability in this period emphasizes more on the innovation spirit, learning ability, and the knowledge and technology needed for entrepreneurship. The main training content of this stage does not involve professional and in-depth abilities, such as those of later development stages and mature stages. In the “awareness” period, innovation and entrepreneurial ability should be oriented to all college students, mainly in the aspects of innovative spirit, learning ability, entrepreneurial personality, and so on. The early innovation ability primarily emphasizes on the transformation of scientific and technological achievements and a small number of entrepreneurial talents, focusing on the business ability of enterprises.

#### **4.4. Developmental**

The innovative spirit and entrepreneurial spirit of college students are very different from other groups. The priority of college students is reading. It is a process from an innate and subjective learning environment to a strong learning environment. Influenced by the country, family, and school, and supported by the society, their creativity can be further developed.

### **5. Strategies for cultivating college students’ innovation and entrepreneurial ability**

#### **5.1. Improve the skills of entrepreneurial teachers and introduce off-campus tutors with entrepreneurship experience**

In order to ensure that innovation and entrepreneurship activities are carried out smoothly, the guidance of tutors is crucial. Unlike other creative entrepreneurial groups in the society, their primary responsibility is learning <sup>[16]</sup>. Given that the school is a well-established school, the teachers should be knowledgeable, prestigious, and those whom students are able to trust unconditionally. Therefore, most college students pay great attention to the guidance of tutors, and under their guidance, it is also important to take note of the improvement of students’ creativity. Whether it is professional knowledge, scientific research, entrepreneurial knowledge, or internship experience, students hope to have the guidance of a teacher. In order to improve the innovation and entrepreneurial ability of college students, the school’s off-campus tutors are not only professional teachers, but also counselors, entrepreneurs, and professional managers with successful entrepreneurship experience. Without doubt, most universities have teachers, including special course teachers, teachers who will lead students in scientific research, and entrepreneurial teachers. However, entrepreneurship is a practical process. Most of the teachers focus on scientific research; they have rich theoretical knowledge but lack practical work experience. Such a teaching method is groundless

for students who wish to be more creative and entrepreneurial. At present, China's colleges and universities urgently need to introduce off-campus tutors with entrepreneurial spirit, and on this basis, improve the skills of entrepreneurial teachers, so as to guide theoretical teaching and practice. These off-campus counselors with entrepreneurial experience can be entrepreneurs, professional managers, or those with entrepreneurial experience. They have indeed experienced entrepreneurship, facing the market, going through tough situations, and even failure. Their opinions are often not learned from books, but rather from years of practice. These off-campus tutors with entrepreneurial experience can provide a communication platform for creative students through regular lectures, seminars, and other means. A professional consultant should also be considered to help students with start-ups <sup>[17]</sup>.

### **5.2. Strengthen policy awareness and improve the enterprise innovation support system**

Since the Eighth National Congress of the Communist Party of China, the CPC Central Committee and the State Council have issued a series of policies and measures to encourage and support the innovation and entrepreneurship of college graduates. Whether it is capital preparation, venue equipment, or operation and management, they are "giving the green light" to college students by providing strong policy support and good public opinion guidance for their innovation and entrepreneurship. Although the state and local governments have issued many preferential policies for college students, no one has really passed this policy on to college students. Most students are only aware that the state has issued many policies on entrepreneurship, but they do not understand the specific policies on entrepreneurship and the support for them. Only those who are willing to start a business and are ready to start one will come to understand it consciously.

Due to the differences in national and regional understanding of innovation and entrepreneurship policies, many excellent entrepreneurship policies have not been fully utilized, and many college students have refused to give up easily. Therefore, governments at all levels should strengthen the publicity of employment policies, and gradually establish and improve the entrepreneurship support system in the region, so as to ensure the entrepreneurship and employment of college graduates. On the one hand, while actively learning and familiarizing with relevant policies and regulations, relevant departments of local governments should join venture with schools or directly contact the school leaders, so as to penetrate the school system. Creating a "green channel" for college students' innovation and entrepreneurship groups will help them understand relevant policies, learn and operate, as well as open up the "last mile" of college students' entrepreneurship <sup>[18]</sup>. First, innovation should begin from the media to expand communication channels. With the rapid development of information technology, college students' understanding of knowledge and ways of communication have changed. While the traditional propaganda media has suffered a major blow, it also poses a challenge to the national innovation and entrepreneurship policy. All relevant units should fully understand the information access of college students and use modern science and technology to increase publicity <sup>[19]</sup>.

### **5.3. Create a good entrepreneurial environment and promote the entrepreneurial enthusiasm of college students**

Social environmental factors are imperceptibly affecting the innovative spirit of college students. Its form seems ethereal, but in fact it "moistens things silently," which has a certain impact on students. College students have high entrepreneurial enthusiasm; hence, they will continue to work and stick to the cause they love. In that way, it promotes their creativity and entrepreneurship. College students should be more willing to participate in entrepreneurship and innovation activities, and they should be more active in the external innovation environment, so as to motivate themselves to create better entrepreneurship. The government, universities, society, and other relevant departments should strengthen cooperation and work together to

create a good entrepreneurial environment. At present, China is vigorously advocating innovative talents, promoting independent entrepreneurship, and creating good entrepreneurial environments throughout the country. With the call of the state, the society and universities are also beginning to pay more attention to the innovation and entrepreneurship of college students<sup>[6]</sup>. However, integrating the country, society, and school into enterprises and establishing a good cultural environment in enterprises require adjustments and improvement. In order to create a good entrepreneurial environment, it is necessary to strengthen the relevant policies and measures of the party and the state. In the early stage of entrepreneurship, college students will encounter many challenges and pressure due to the lack of capital reserves and financing channels. Due to the macro influence of national policies, college students lack the practical guidance of national policies in the process of entrepreneurship<sup>[8]</sup>. Therefore, in accordance with relevant national policies, and in combination with social reality, development needs, and the innovation and entrepreneurship direction of college graduates, local governments and relevant departments should issue corresponding laws and regulations to promote the implementation of these policies. In order to create a good entrepreneurial environment, all relevant departments should fully understand and affirm its practical significance and strategic value, as well as play a creative role in practice. In terms of innovation and entrepreneurship education, education departments at all levels should give a certain amount of autonomy and policy support to universities as well as promote the enthusiasm of scientific research through exchanges and cooperation with enterprises. Education administrative departments at all levels should strengthen the information transmission platform, broaden the information channel for college students' innovation and entrepreneurship, as well as provide college students with the latest policies and information<sup>[20]</sup>.

## **6. Conclusion**

The innovation and entrepreneurship education for college students should be student-centered, with students' creative thinking and practical ability taken as the key contents. College students should be encouraged to carry out entrepreneurial activities and taught in accordance with local conditions and their aptitude. They should be discouraged to blindly pursue their own entrepreneurship. Innovation is the prerequisite and cornerstone of entrepreneurship. With innovation as the core, utilitarianism should not be blindly pursued. It is important to strengthen the cooperation among schools, college students, entrepreneurs, and the government, vigorously support college students' innovation and entrepreneurship, create a favorable environment for entrepreneurship, provide more platforms and opportunities for entrepreneurship, promote their communication and exchange, expand their growth space, stimulate the vitality of innovation among college students, improve the quality of college students' innovation and entrepreneurship, and enhance their entrepreneurship success rate.

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## References

- [1] Li N, 2019, Research on the Structure and Current Situation of College Students' Innovation and Entrepreneurship Ability in the New Era, Northeast Normal University.
- [2] Shen Z, Huang H, 2018, Philosophical Examination of Innovation and Entrepreneurship Education in Higher Vocational Colleges in China Under the Background of the New Era. *Vocational and Technical Education*, 39: 112-113.
- [3] Li Y, 2019, Research on Influencing Factors and Training Strategies of College Students' Innovation and Entrepreneurship Ability, Northeast Normal University.
- [4] Hu R, 2018, Strategies for Constructing College Students' Innovation and Entrepreneurship Team Under the Background of Mass Entrepreneurship. *Economic Research Guide*, 2018(06): 111, 128.
- [5] Zhang Q, 2016, Implementation Strategy of Innovation and Entrepreneurship Education for College Students. *Jiangsu Higher Education*, 2016(03): 120-123.
- [6] Wang X, 2010, Research on the Establishment, Cultivation and Development of Scientific and Technological Innovation Teams of Undergraduate Students in Local Colleges and Universities, School of Trade and Administration, Chongqing University, Chongqing, 5.
- [7] Huang W, 2019, Research on the Impact of Entrepreneurial Team Emotional Intelligence on Conflict and Entrepreneurial Performance, Zhejiang University of Technology.
- [8] Cheng Q, 2018, The Impact of Leadership Behavior of Leaders of Major Scientific Research Projects on Team Performance, South China University of Technology.
- [9] Su M, 2017, Research on the Impact of College Students' Entrepreneurial Team Heterogeneity on Innovation Performance, University of Electronic Science and Technology.
- [10] Kong L, Li Y, 2019, Research on the Training Mode and Mechanism of College Students' Innovation and Entrepreneurship Ability. *Farm Staff*, 2019(14): 267.
- [11] Yu Q, 2019, Explore the Training Orientation of Independent College Students' Innovation and Entrepreneurship Ability in the New Era. *Think Tank Era*, 2019(34): 255.
- [12] Wang S, Ren Y, Jing X, 2019, Research on the Promotion Path of College Students' Innovation and Entrepreneurship Ability. *Modernization of Education*, 2019(46): 156.
- [13] Liu Y, 2019, On the Cultivation of Students' Innovation and Entrepreneurship Ability in Higher Vocational Colleges. *Broad Vision*, 2020(14): 289.
- [14] Chen J, 2019, Research on the Training Mode of Innovation and Entrepreneurship Ability of Higher Vocational Students Based on Big Data. *Modernization of Education*, 2019(53): 37-38, 52.
- [15] Chen J, 2019, Thoughts on the Construction of Platform for Improving College Students' Innovation and Entrepreneurship Ability. *Mass Science (Science Education)*, 2019(8): 163-164.
- [16] Bo L, 2019, On the Difficulties and Countermeasures of Cultivating Higher Vocational Students' Innovative and Entrepreneurial Ability. *Test Questions and Research*, 2019(17): 100.
- [17] Cai N, Xia H, 2018, Training Practice of Students' Innovation and Entrepreneurship Ability in Local Higher Vocational Colleges. *Journal of Yiyang Vocational and Technical College*, 2018(4): 45-47.
- [18] Jia N, 2018, Research on the Guarantee Mechanism for the Development of College Students' Innovation and Entrepreneurship Ability. *Science and Technology Economic Guide*, 2018(34): 99-100.
- [19] Wang C, Su X, Dong J, 2018, Research on the Current Situation and Influencing Factors of Innovation and Entrepreneurship Ability of Higher Vocational Students. *Green Technology*, 2018(23): 259-260.

[20] Zhou T, Liu X, 2018, Strategies for Improving College Students' Innovation and Entrepreneurship Ability. Knowledge Economy, 2018(23): 59-60.

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