

# Research on the Training Model of Innovative and Entrepreneurial Talents in Universities from the Perspective of “Integration of Specialized and Innovation-entrepreneurship”

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**Abstract:** The “Integration of Specialized and Innovation-entrepreneurship” emphasizes the in-depth integration of professional education and innovation and entrepreneurship education. It takes professional course teaching as an effective carrier, incorporates the content of innovation and entrepreneurship education, and is committed to cultivating students’ innovative awareness, enhancing their professional and entrepreneurial abilities, and ultimately laying a solid foundation for the comprehensive development of college students. This paper first briefly expounds on the background of the “Integration of Specialized and Innovation-entrepreneurship” education. Then, it analyzes the basic principles that should be followed in the training of innovative and entrepreneurial talents in universities from the perspective of “Integration of Specialized and Innovation-entrepreneurship.” Finally, the paper summarizes and proposes effective paths for the training of innovative and entrepreneurial talents in universities from this perspective, aiming to cultivate more high-quality “specialized and innovation-entrepreneurship” talents by reconstructing the university talent training system and comprehensively improving the education level of universities.

**Keywords:** Integration of specialized and innovation-entrepreneurship; Universities; Innovation and entrepreneurship; Talent training model

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## 1. Introduction

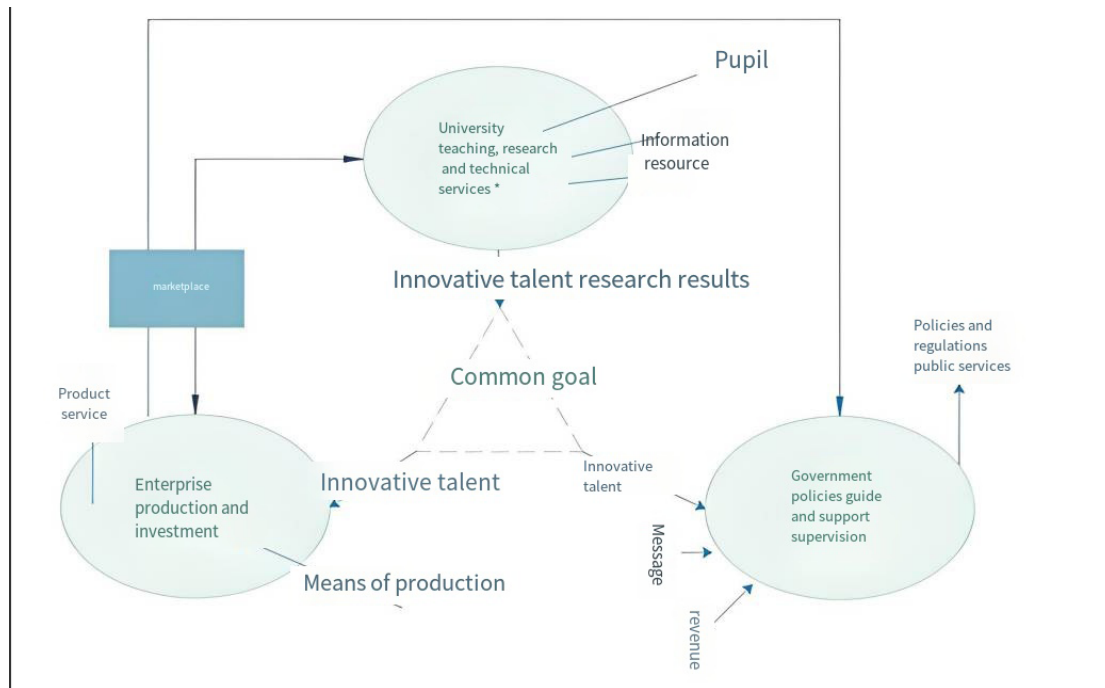
With the in-depth promotion of the concept of “mass entrepreneurship and innovation”, universities, as the main front for modern talent training, face new opportunities and challenges in their talent training models. The “Integration of Specialized and Innovation-entrepreneurship” puts forward new requirements for university talent training. Universities should abandon the previous talent training model centered on professional

education and gradually shift towards the in-depth integration of professional education and innovation and entrepreneurship education. Only in this way can students establish correct employment and entrepreneurship concepts, a unique talent training system be created, and the “Integration of Specialized and Innovation-entrepreneurship” be truly promoted to improve quality and efficiency and take root.

## **2. Background of the “Integration of Specialized and Innovation-entrepreneurship” education**

In the context of rapid social development, market demands are becoming increasingly diverse. Especially for enterprises, their demand for innovative talents is particularly urgent. However, it is undeniable that the traditional talent training model mainly based on professional education makes it difficult to meet diverse social needs. Universities, as the main front for cultivating innovative talents, shoulder the arduous task of cultivating students’ innovation and entrepreneurship spirit and improving their innovation and entrepreneurship abilities<sup>[1]</sup>. University innovation and entrepreneurship education, as an effective measure to cultivate innovative talents, should receive key attention. On the one hand, it is conducive to cultivating students’ awareness of independent entrepreneurship; on the other hand, it can also enhance students’ comprehensive competitiveness in the market, thus providing a solid talent guarantee and support for the construction of an “innovative” country and laying a solid foundation for the effective implementation of the concept of “mass entrepreneurship and innovation.”

The core content of the “Integration of Specialized and Innovation-entrepreneurship” education in universities is to take professional education as the cornerstone and actively promote innovation and entrepreneurship education, such as team building, investment, financing, laws, and regulations, etc., to broaden students’ horizons, enable them to contact and understand the whole process of entrepreneurship before graduation and lay a foundation for their future career paths<sup>[2–3]</sup>. Specifically, there are various ways of “Integration of Specialized and Innovation-entrepreneurship” education. Universities can design a variety of colorful activities based on the actual needs of college students, such as holding entrepreneurship lectures, innovation and entrepreneurship forums, and “Integration of Specialized and Innovation-entrepreneurship” salons, to improve students’ practical abilities. Moreover, universities should pay special attention to college students with a strong willingness to innovate and start businesses, provide them with personalized guidance and support, compile entrepreneurship-related publications, and carefully develop innovation and entrepreneurship guidance manuals for this group. The aim is to help students clarify the obstacles and problems they may face in the process of innovation and entrepreneurship in the future and provide solutions in advance, which is helpful for students to effectively avoid various risks and improve their innovation and entrepreneurship abilities<sup>[4]</sup>. The theoretical basis of “special innovation and integration” — the three spiral theory of innovation and entrepreneurship education is shown in **Figure 1**.



**Figure 1.** The three-way spiral theory of innovation and entrepreneurship education

### 3. Basic principles for training innovative and entrepreneurial talents in universities from the perspective of “Integration of Specialized and Innovation-entrepreneurship”

#### 3.1. Main-auxiliary coordination

In the “Integration of Specialized and Innovation-entrepreneurship” education system in universities, professional education is the cornerstone of innovation and entrepreneurship education, and innovation and entrepreneurship education is the expansion and sublimation of professional education. The two complement each other and both play a positive role in the cultivation of “innovation and entrepreneurship” talents. Professional education and innovation and entrepreneurship education have different focuses and have a certain main-auxiliary relationship, but there is no primary-secondary distinction. Generally, professional education plays a dominant role, and innovation and entrepreneurship education play the role of an “assistant.” If universities want to create a scientific and effective training model for innovative and entrepreneurial talents, they should clearly define the relationship between the two, root innovation and entrepreneurship education in the fertile soil of professional education, and fully explore the innovation and entrepreneurship elements hidden in professional education, aiming to promote their in-depth integration <sup>[5]</sup>.

#### 3.2. Seamless docking

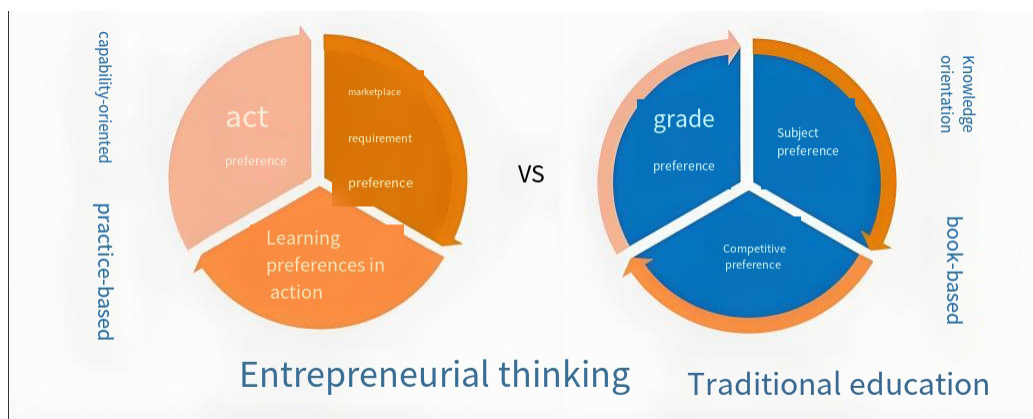
Aiming to cultivate high-quality “innovation and entrepreneurship” talents, universities should implement the basic principle of “seamless connection.” They should pay attention to all aspects of students’ growth and provide them with the most cutting-edge professional knowledge and information, enrich teaching content, continuously reform and innovate the experimental and practical teaching process, and provide professional support and targeted guidance for students to participate in vocational skill competitions and obtain vocational skill certificates. Only in this way can professional education and innovation and entrepreneurship education

be kept in parallel development, enabling students to firmly master rich innovation and entrepreneurship knowledge and effectively exercise relevant skills through the first and second classrooms, ultimately promoting their comprehensive development <sup>[6-7]</sup>.

#### 4. Effective paths for training innovative and entrepreneurial talents in universities from the perspective of “Integration of Specialized and Innovation-entrepreneurship”

##### 4.1. Idea first, strengthen the cognitive orientation of “Integration of Specialized and Innovation-entrepreneurship”

First of all, universities should deepen their understanding of the connotation of innovation and entrepreneurship education to lay a solid foundation for its in-depth integration with professional education in the future. It should be noted that the early innovation and entrepreneurship education policies issued in China had obvious “instrumental” characteristics. However, with the continuous in-depth research on innovation and entrepreneurship education in China, based on rich research results, China has been committed to continuously optimizing and improving the policy system related to innovation and entrepreneurship education. Nowadays, innovation and entrepreneurship education has gradually shifted from “instrumentalization” to “ideation”, emphasizing the cultivation of students’ innovative thinking and spirit, with the fundamental purpose of injecting continuous impetus into students’ career development <sup>[8]</sup>. In this context, to guide the “Integration of Specialized and Innovation-entrepreneurship” in the right direction, universities should continuously deepen their understanding of the connotation of “innovation and entrepreneurship education”, be guided by the fundamental task of “cultivating people with moral integrity”, strengthen school-enterprise cooperation and the integration of industry and education, build platforms and create opportunities for innovation and entrepreneurship education to be closely connected with the production process, and enable students to fully engage in innovation and entrepreneurship practices to enhance their theoretical understanding and improve their practical abilities. Secondly, strengthen the application of the concept of “Integration of Specialized and Innovation-entrepreneurship.” Universities should always implement the talent training principle of “student-centered”, construct an innovation and entrepreneurship talent training model of classified training and guidance, and provide strong support for achieving the educational goals of the “Integration of Specialized and Innovation-entrepreneurship” through a customized curriculum system and practical platform <sup>[9]</sup>. **Figure 2** briefly expounds on the differences between entrepreneurial thinking and traditional education, and aims to lead educators to establish correct educational concepts.



**Figure 2.** The difference between entrepreneurial thinking and traditional education



#### **4.2. Improve quality, consolidate the foundation of “Integration of Specialized and Innovation-entrepreneurship” education**

Universities should build a professional, proficient, and strong teaching team to provide solid support and guarantee the in-depth promotion of the “Integration of Specialized and Innovation-entrepreneurship” education. Given the problems existing in most universities in China, such as teachers lacking rich entrepreneurial investment experience and professional teachers having low innovation and entrepreneurship education capabilities, universities should actively invite successful entrepreneurs or startup founders to participate in the training of innovative and entrepreneurial talents in their own schools. Through their case sharing and practical guidance, the shortcomings of the current teaching staff can be targeted, and the overall practical level of the teaching team can be improved. Specifically, universities can regularly invite entrepreneurs, investors, and entrepreneurs to the school to give special lectures, allowing them to centrally answer the common and individual questions about innovation and entrepreneurship that students care about and provide professional guidance. In this process, investors, entrepreneurs, etc. can also select capable and potential students to participate in actual projects according to their own needs. This can not only provide a stage for students to show their personal talents but also help them accumulate rich practical experience, which is of far-reaching significance for students’ future career development<sup>[10]</sup>. In addition, universities should develop practical teacher training and development plans. By regularly organizing seminars, exchange meetings, training sessions, and other activities, teachers can deeply understand the importance and urgency of the “Integration of Specialized and Innovation-entrepreneurship” and actively participate in “Integration of Specialized and Innovation-entrepreneurship” education activities. In this way, the characteristics of “Integration of Specialized and Innovation-entrepreneurship” education can be further highlighted, and more innovative and entrepreneurial talents who are brave to forge ahead and strive hard can be cultivated. On the one hand, universities should actively encourage teachers to “go out”, broaden their horizons, and accumulate experience to feed back into school education and activate the vitality of innovation and entrepreneurship education. On the other hand, universities should establish and improve a teacher incentive mechanism and appropriately reward teachers who have made outstanding contributions in the field of “Integration of Specialized and Innovation-entrepreneurship” education, to create a good atmosphere on campus and actively promote the transformation and upgrading of the university teaching staff.

#### **4.3. Rely on courses, highlight the characteristics of “Integration of Specialized and Innovation-entrepreneurship” education**

University entrepreneurship courses are an effective carrier and important platform for cultivating students’ innovation and entrepreneurship spirit. They help students establish correct entrepreneurship and employment concepts and lay a foundation for their future innovation and entrepreneurship paths. To further highlight the characteristics of “Integration of Specialized and Innovation-entrepreneurship” education, the teaching content of university entrepreneurship courses needs to be enriched. On the one hand, the enrollment and employment guidance office of the university can take the lead in creating a series of innovation and entrepreneurship courses tailored to students. Starting from general innovation and entrepreneurship courses, students can be introduced to basic innovation and entrepreneurship activities. Then, the university can create systematic professional-type innovation and entrepreneurship courses, truly exploring the innovation and entrepreneurship elements hidden in professional courses, and specifically cultivating students’ entrepreneurial thinking and

innovative spirit. Finally, based on majors and disciplines and combined with the characteristics of the school, the university should design a series of characteristic innovation and entrepreneurship practical courses and organize relevant practical activities, actively encouraging students to participate in the whole process from planning and founding to operation and management, and effectively improving their practical abilities. On the other hand, relying on platforms such as maker spaces, science parks, and business incubators, universities should actively innovate teaching methods for courses, adopt diversified teaching means such as project-based learning, case analysis, role-playing, and simulated entrepreneurship, and fully stimulate students' learning interests <sup>[11–12]</sup>. Moreover, universities should give full play to the advantages of teaching aids such as artificial intelligence and virtual simulation. By building a digital resource library, rich learning resources can be provided for students. With the help of online lectures and MOOCs, students can directly experience the real scenes of innovation and entrepreneurship, bringing them an immersive feeling and invisibly enhancing the effect of innovation and entrepreneurship education <sup>[13]</sup>.

#### **4.4. Strengthen practice, enhance the effect of “Integration of Specialized and Innovation-entrepreneurship” education**

The training of innovative and entrepreneurial talents can hardly achieve the desired results by relying solely on theoretical indoctrination. Therefore, under the guidance of the concept of “Integration of Specialized and Innovation-entrepreneurship”, universities should actively guide students to put theory into practice. By providing them with diversified entrepreneurial practice platforms, students' understanding of the connotation of innovation and entrepreneurship can be deepened, and their professional skills can be specifically tempered to cultivate more outstanding “innovation and entrepreneurship” talents. For example, by relying on platforms such as maker spaces and science park incubators, universities can encourage students to carry out project practices freely in groups, helping them accumulate rich practical experience and prepare for future entrepreneurship. Moreover, universities should actively encourage students to participate in various large, medium, and small-scale innovation and entrepreneurship competitions or project applications, providing them with opportunities to truly contact the market and specific projects. Through personal participation in practical activities, students may have a deeper or more unique understanding of the survival and development of enterprises. In addition, the combination of “production, education, and research”, as the core of the “Integration of Specialized and Innovation-entrepreneurship”, is of great significance for cultivating innovative and entrepreneurial talents. Universities can closely cooperate with scientific research institutions, local enterprises, and the government to further implement production-education-research projects and truly transform students' scientific research achievements into practical applications. For example, agricultural universities can pilot and promote students' food research and development projects in the school cafeteria. In this way, it can not only enhance students' sense of professional identity and project pride but also achieve a multiplier effect in education <sup>[14–15]</sup>.

## **5. Conclusion**

To sum up, the “Integration of Specialized and Innovation-entrepreneurship” education in universities should be based on professional education. Innovation and entrepreneurship education should be carried out based on professional education, aiming to promote their in-depth integration and maximize the collaborative education

effect. This means that universities should infiltrate the core concept of innovation and entrepreneurship education into all aspects of professional curriculum design and teaching, ensuring that students can not only acquire professional knowledge but also firmly master the practical application ability of knowledge. Moreover, the “Integration of Specialized and Innovation-entrepreneurship” education in universities should also pay attention to maintaining the characteristics of professional education and innovation and entrepreneurship education, focusing on cultivating students’ creative thinking, entrepreneurial awareness, and innovative spirit, and enhancing their comprehensive ability to actively respond to various challenges in the future, to cultivate more innovative talents that meet the needs of society and the country.

## Disclosure statement

The author declares no conflict of interest.

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