

# Research on the Construction of Innovation and Entrepreneurship Education System in Higher Vocational Colleges under the Background of "High-level" Development

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**Abstract:** The core mission of "high-level" construction in higher vocational colleges is to cultivate outstanding applied technical innovation talents. Establishing a sound innovation and entrepreneurship education system is an important approach during the "high-level" construction period to nurture outstanding talents in applied technical innovation. Currently, innovation and entrepreneurship education in higher vocational colleges faces challenges such as a single organizational structure, lack of synergy mechanisms, a uniform curriculum system without top-level design, a homogeneous teaching staff without entrepreneurial experience, and limited resources for practical platforms. To address these challenges, higher vocational colleges need to establish a multi-departmental collaborative management structure, including the establishment of an Innovation and Entrepreneurship College, Academic Affairs Department, and Student Affairs Department. They should also scientifically design a curriculum system consisting of "guidance courses, professional courses, and project-based courses," meticulously cultivate a tripartite team of innovation and entrepreneurship educators comprising "course instructors, project mentors, and competition mentors," and make concerted efforts to create a deep integration of the "production-training-competition" innovation and entrepreneurship education practice system at four levels to address these issues.

**Keywords:** "high-level" construction, higher vocational colleges, innovation and entrepreneurship education system.

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## Introduction

In December 2018, the Ministry of Education issued a notice regarding the *Enhancement of Employment and Entrepreneurship Services for the 2019 Graduates of National Regular Higher Education Institutions*. In this notice, it emphasized the comprehensive deepening of innovation and entrepreneurship education reform in universities. It called for all regions and universities to integrate innovation and entrepreneurship education throughout the entire process of talent cultivation. This should include incorporating innovation and entrepreneurship education and practical courses into the mandatory curriculum system of higher education institutions, thereby promoting the organic integration of innovation and entrepreneurship education with professional education and the deep fusion with ideological and political education. However, some higher vocational colleges have become disconnected from the task of "innovation and entrepreneurship education" in the context of high-level construction. They have not fully harnessed the role of innovation

and entrepreneurship education in high-level construction efforts. A profound understanding of the relevant issues regarding innovation and entrepreneurship education in higher vocational colleges under the backdrop of "high-level" construction is not only a necessary requirement for implementing the Party's 19th National Congress report on the deepening of the strategy to strengthen the country through talent, but also an urgent need for continuously driving innovation and entrepreneurship reform in higher vocational colleges and improving the comprehensive quality assessment of vocational college students in the new era.

## **1.The real challenges of innovation and entrepreneurship education in higher vocational colleges in the context of "High-Level" Construction**

In the context of "high-level" construction, vocational colleges face several practical challenges in innovation and entrepreneurship education:

### **1.1 Single curriculum system and single teaching staff**

At present, there are the following problems in the innovation and entrepreneurship courses of domestic vocational colleges: lack of systematic top-level design, lack of integration with professional enterprises and industries, separation of innovation and entrepreneurship courses from professional courses, and lack of entrepreneurial experience in the teaching staff<sup>[1-3]</sup>. These issues have led to insufficient reliability and validity of the curriculum, which is out of line with social needs and hinders the process of talent cultivation and employment<sup>[4]</sup>.

### **1.2 Limited variety in practical platforms**

Innovation and entrepreneurship education emphasize practical experience. However, some vocational colleges offer a limited variety of practical platforms. According to survey results, only 20.2% of students considered their school's innovation and entrepreneurship education platform to be a makerspace, and 23.4% considered it to be an incubation base. This suggests that some vocational colleges lack diversity and resource support in their practical platforms, which may not align with the requirements of high-level vocational college construction.

**Table 1** Practical Platforms for Innovation and Entrepreneurship Education in Schools (n=1745)

Makerspaces	Incubation Bases	General Courses on Innovation and Entrepreneurship	Industry-Education Integration Platforms
20.2%	23.4%	61.7%	12.3%

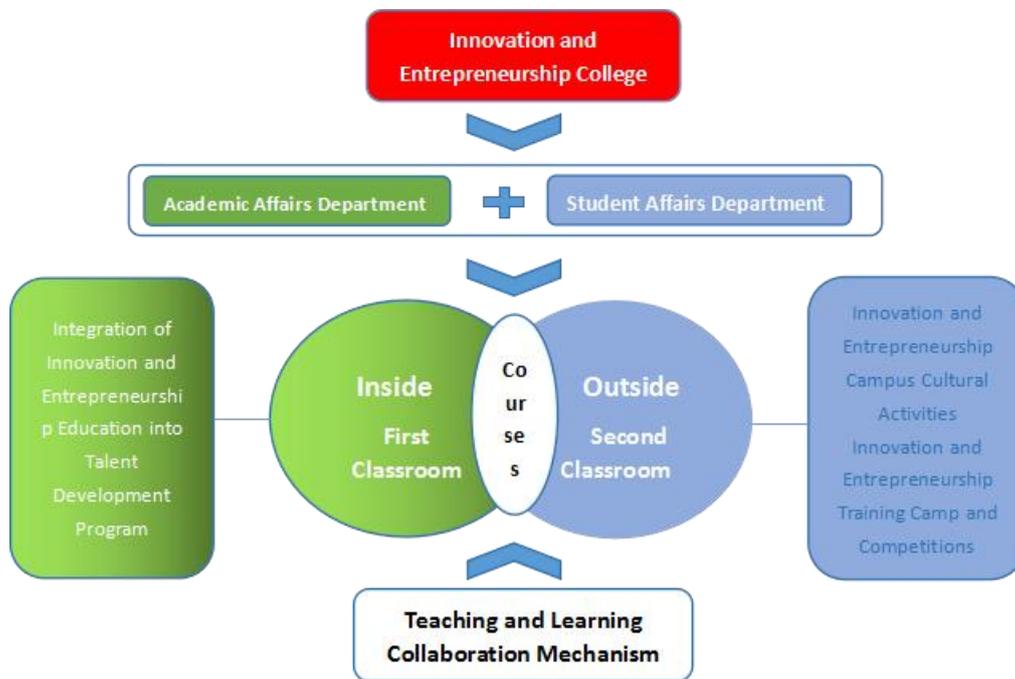
## **2. Content framework for constructing the innovation and entrepreneurship education system in higher vocational colleges in the context of "High-Level" construction**

Based on the goal of cultivating top-notch innovative talents with a "high-level" construction, it is necessary to integrate high-quality resources such as universities, governments, enterprises, and society, and construct a multi-level, three-dimensional, and multi linked innovation and entrepreneurship education system from four levels: organizational structure, curriculum system, teacher system, and practical platform, in order to promote the deepening reform and development of innovation and entrepreneurship education in universities<sup>[5]</sup>.

### **2.1 Establishing a collaborative organizational structure involving innovation and entrepreneurship college, academic affairs and student affairs departments**

Innovation and entrepreneurship education in vocational colleges needs to establish a management organization with innovation and entrepreneurship colleges as the main body and other departments participating together, promote the organic connection of the education chain, talent chain, industry chain, and innovation chain, and build a virtuous cycle development of innovation and entrepreneurship education ecosystem. This organizational structure should achieve an

internal operating mechanism of "unified leadership, diverse collaboration, and graded implementation", form a systematic system of innovation and entrepreneurship education, and promote the sustainable and high-quality development of school innovation and entrepreneurship education. As shown in Figure 1:



**Figure 1** Collaborative Education Model for Academic Affairs, Students and Workers

## **2.2 Scientifically designing an integrated innovation and entrepreneurship education curriculum system comprising "Introductory courses + Major courses + Project courses"**

The curriculum system is a crucial component of innovation and entrepreneurship education in higher education institutions. In the context of "high-level" development, universities should align with the strategic demand to cultivate top-notch innovative talents set by the nation. They should scientifically design an integrated curriculum system that includes guiding courses, developmental courses, and project-based courses for innovation and entrepreneurship education. This curriculum system aims to provide students with systematic knowledge and skills related to innovation and entrepreneurship, thereby accelerating the training of outstanding applied innovative talents<sup>[6]</sup>.

## **2.3 Carefully cultivating a tripartite team of innovation and entrepreneurship educators consisting of "Course instructors + Project mentors + Competition mentors"**

High-level innovation and entrepreneurship education necessitates the cultivation of educators who possess deep theoretical knowledge in entrepreneurship and rich practical experience. Currently, many Chinese universities face a shortage in this regard, lacking interdisciplinary and cross-domain entrepreneurship educator teams, which hinders the improvement of the quality of innovation and entrepreneurship education. To address this issue, universities should carefully cultivate a tripartite team of innovation and entrepreneurship educators, consisting of course instructors, project mentors, and competition mentors. Simultaneously, universities should establish complementary online and offline service networks, integrating resources related to entrepreneurship mentors, technical support, financial resources, and policy assistance. These measures will provide students with comprehensive innovation and entrepreneurship support, enhancing their capabilities and offering one-stop guidance and assistance.

## **2.4 Wholeheartedly establishing a deeply integrated "Production - Training - Competition" innovation and entrepreneurship education practice system**

In the context of high-level construction, universities should adhere to the principle of combining theory, practice, and innovation. Emphasis should be placed on "prioritizing theory, strengthening practice, and integrating theory with practice." By integrating advantageous resources from both within and outside the university, an integrated practical system should be established, covering practice-based teaching through industry-academic cooperation, innovation training programs, and innovation and entrepreneurship competitions. This approach can enhance students' entrepreneurial and practical skills and effectively implement the task of cultivating top-tier innovative talents.

In summary, in the context of "high-level" development, vocational colleges must, in conjunction with regional economic characteristics, institutional characteristics, and program specialties, leverage innovation and entrepreneurship education as a focal point. They should coordinate efforts to create a multi-level innovation and entrepreneurship education platform, guided by practical applications within society and supported by internet technologies. This effort aims to establish a multidimensional innovation and entrepreneurship education system.

### **Conflicts of interest**

The author declares no conflicts of interest regarding the publication of this paper.

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