## Quality improvement strategies on innovation and entrepreneurial education courses in colleges and universities in Chengdu

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*Keywords:* Chengdu; colleges and universities; innovation and entrepreneurship; curriculum quality

Abstract: As the basic link and core element of the connotative development of innovation and entrepreneurship education, how to promote colleges and universities to shift the focus of the development of innovation and entrepreneurship education from the integration of external resources to the construction of micro-factors with curriculum as the key composition, and accurately benchmark curriculum construction, the deep-seated problem of innovation and entrepreneurship education reform, so as to promote the innovation and entrepreneurship education curriculum system suitable for the types of colleges and universities, becoming a research topic of theoretical and practical significance. Taking the quality of innovation and entrepreneurship courses in colleges and universities in Chengdu as the research object, this paper finds that the curriculum objectives, curriculum structure, curriculum content, curriculum implementation and curriculum evaluation have become important factors affecting the quality of entrepreneurship education courses, and puts forward optimization and integration plans around the above five aspects, with a view to further promoting the improvement of the quality of the curriculum of innovation and entrepreneurship education in colleges and universities, so as to promote the high-quality output of innovation and entrepreneurship talents in colleges and universities.

## **1. Introduction**

As a new form of talent training and activity that is different from traditional professional education, innovation and entrepreneurship education enjoys the supreme position of the world's third education pass besides academic and vocational education. Its unique functions in improving the country's comprehensive competitiveness, promoting social and industrial economic innovation-driven development, improving social employment and job entrepreneurship opportunities, and cultivating high-quality, diversified and compound innovative and entrepreneurial talents have been widely recognized by stakeholders<sup>[1]</sup>. Whether it is the United States, a pioneer of innovation and entrepreneurship education in the center of higher education, the EU countries strongly promoted by government policies and later dominated by the United Kingdom and Germany, or developed countries such as Japan and Singapore, have vigorously

developed innovative and entrepreneurship education through policy supply, institutional construction, resource allocation, platform optimization and curriculum construction, as a concerted measure to promote its higher education to respond to the demands of external social changes and comprehensive internal reforms. Innovation and entrepreneurship education has jumped into a world trend and trend of the transformation and development of higher education, and has developed into a new model and paradigm for the transformation and development of colleges and universities in the new era <sup>[2]</sup>. Therefore, this study starts with the innovation and entrepreneurship curriculum, and takes the development of innovation and entrepreneurship courses in colleges and universities in Chengdu as the starting point. It focuses on exploring the practical problems existing in the innovation and entrepreneurship curriculum in colleges and universities, and puts forward a course quality improvement plan accordingly, so as to further promote the high-quality output of innovation and entrepreneurship talents in colleges and universities.

### 2. Problem Statement

After years of practical exploration, innovation and entrepreneurship education in colleges and universities in China has achieved breakthrough progress in curriculum construction from scratch, from less to more, from major to general knowledge, and from single to community, and has achieved certain educational results. However, due to the late start of innovation and entrepreneurship education in colleges and universities in China, its development form and practical content are generally fragmented and fragmented. It has always focused on the overall supply of many elements such as innovation and entrepreneurship education organization, management, platform, teachers and curriculum at the macro level, and relatively ignoring the micro-construction of any of the subsystem and sub-factor. Nowadays, structural optimization and classified development are the basic logic and key links of the development of higher education in the new era. As the key starting point for colleges and universities to deepen the comprehensive reform of education and teaching, innovation and entrepreneurship education must be adjusted and innovated in time, and the focus must be shifted down to the innovation and entrepreneurship education microsystem with optimizing and improving the construction of the curriculum system as the core, and fundamentally serve the improvement of the quality of talent training in different types of colleges and universities. In view of the insufficient number of innovation and entrepreneurship education curriculum development in colleges and universities, low structural integration, insufficient content integration, curriculum teaching focuses on theory over practice, fragmentation and systematic micro<sup>[3]</sup>, through systematic research on the construction of innovation and entrepreneurship education in colleges and universities, it helps the connotation development and quality improvement of innovation and entrepreneurship education in colleges and universities.

#### **3. Literature Review**

In recent years, the research on "double innovation" education has been deepening, and the research on "double innovation" courses has gradually become specialized. According to the comprehensive literature, the current research on the improvement of the quality of the innovation and entrepreneurship curriculum can start from multiple perspectives.

Zhu Zhou<sup>[4]</sup> proposed to use artificial intelligence to care for and stimulate students' innovative spirit and entrepreneurial ability, strengthen the integration and dissemination of Internet resources, build intelligent classrooms for innovation and entrepreneurship in colleges and universities, adjust and enrich teaching methods, constantly enrich teaching resources, and optimize the curriculum teaching evaluation mechanism, so as to better promote the improvement of the quality of innovation and entrepreneurship courses in colleges and universities under the background of

artificial intelligence.

Lu Ming<sup>[5]</sup>research points out that colleges and universities need to start from social needs, teachers' needs, characteristic curriculum needs and students' needs, promote the integration of the concept of "double innovation" with professional courses, and improve the specialization of teachers, curriculum hierarchy, and diversification of learning.

Gu Jianguang<sup>[6]</sup> proposed to focus on the five-in-one collaborative innovation and development model of "government, industry, university and research", focusing on the three levels of "four entry" (teacher entering the platform, student entering the project, case entering the curriculum, teaching into the site), "four docking" (curriculum docking, school-enterprise docking, teacher and production docking, skills training and professional standard docking), "four orientation" (enterprise transformation and upgrading demand orientation, student sustainable development demand orientation, employer talent demand orientation, government policy landing demand orientation) as the focus to improve the quality of the quality of the entrepreneurship curriculum.

#### 4. Method and Analysis

#### 4.1 Research design

The main focus of this article is to study how to improve the quality of Chengdu's innovation and entrepreneurship curriculum by optimizing curriculum factors. The investigation and research method is the core research method of this research. The research of this study is mainly carried out through questionnaires. The questionnaire is scored by Likert 5 points: score 1-5 points from "never" to "always", and choose the option that suits your situation in the way that the respondents chooses your own choice. The basic idea followed by the questionnaire is a structural sequential chain of "curriculum cognition-course objectives-curriculum structure-curriculum content-curriculum implementation-curriculum evaluation-curriculum effect", thus forming the seven major contents composed of the questionnaire.

#### 4.2 Questionnaire distribution and sample analysis methods

This questionnaire is conducted in the form of electronic questionnaire distribution, which is carried out simultaneously online and offline. A total of 1,000 questionnaires have been distributed, and 966 questionnaires have been recovered, with a recovery rate of 96.6%. The investigation of the recovered questionnaires found that all the answers were valid, and there were no random filling and omissions. The valid questionnaires were 966, with an efficiency of 100%. Therefore, the recovery rate and efficiency of the questionnaire meet the research requirements.

### 4.3 Questionnaire sample distribution

As shown in Table 1, the sample sources of this questionnaire are relatively extensive and complete, and they are representative.

Project	Basic variables	Number of people	Percentage/%
Condor	Male	506	52.38
Gender	Female	460	47.62
	Sophomore	490	50.72
Grade	Junior	299	30.95
	Senior and above	177	18.32
	Science	302	31.26
	Engineering	316	32.71
Speciality	Social sciences	206	21.33
	Humanities	91	9.42
	Medical science	51	5.28
Way of admission	Major enrollment	840	86.96
way of admission	Professional enrollment	126	13.04
Home leastion	City	570	59.01
Home location	Village	396	40.99
Parental education	Higher education	481	49.79
level	Non-higher education	485	50.21

Table 1: Basic information of subjects studied

4.4 Analysis of the problems of innovation and entrepreneurship courses in colleges and universities in Chengdu

## A. Questions about course objectives

As shown in Table 2, about 52% of students said that the school's innovation and entrepreneurship curriculum goals did not clearly highlight the characteristics of academic innovation, creation and application. In practice, due to the limitations of various factors, there is a certain degree of deviation from the direction. It is mostly planned and designed of curriculum objectives around the basic knowledge and quality of innovation and entrepreneurship, which is difficult to form multiple coupling with academic innovation, creation and application. As a result, the objectives of the innovation and entrepreneurship education curriculum goals of innovation and entrepreneurship education are almost the same as those of other universities, and it is impossible to highlight the uniqueness of the innovation and entrepreneurship education curriculum goals of research universities.

Table 2: Sorting out the curriculum objectives of innovation and entrepreneurship in Chengdu universities

			The proportion of each scoring					
Dimensionality	Subdimension	person /%						
		1	2	3	4	5		
Course objective	The degree of prominence of academic innovation, creation and application of the curriculum	3.62	10.66	43.37	34.89	7.45		
	The degree of curriculum classification design	4.14	16.87	41.82	29.92	7.25		
	The degree of individuation of curriculum development	4.97	16.15	42.65	29.19	7.04		

As shown in Table 2, about 63% and 64% of students unanimously said that the level of

stratified design and personalized development of the school innovation and entrepreneurship education curriculum is not obvious. Although the current colleges and universities have generally clarified the curriculum goals of innovation and entrepreneurship education, they inevitably seem too macroscopic, broad and general. The specific direction is vague and unclear, and cannot be clarified, concretized and operable, and does not have practical norms, guidance and guidance.

### B. Questions about course content

As shown in Table 3, more than 28% of students believe that innovation and entrepreneurship courses focus on basic or introductory theoretical knowledge. It is found that whether it is a university-wide general knowledge or basic course of innovation and entrepreneurship, or an integrated professional innovation and entrepreneurship course, the focus of content design is on the setting of knowledge structure. Among them, general courses tend to focus on the general introduction of innovation and entrepreneurship, while professional courses are generally scattered or even free from the theme of innovation and entrepreneurship, lack proper penetration of innovation and entrepreneurship, and stay in the teaching of established professional knowledge, which is still disconnected from innovation and entrepreneurship.

As shown in Table 3, about 62% of students believe that innovation and entrepreneurship courses do not incorporate much cutting-edge content such as the latest scientific research achievements, policies, regulations and systems, and market information trends, and about 59% of students believe that the applied content such as innovation and entrepreneurship practices, cases, and technical methods is not fully integrated. About 65% of students believe that the content of innovation and entrepreneurship courses is not in line with the needs of the social market and industry. In practice, innovation and entrepreneurship courses mostly point to the theoretical content of employment and entrepreneurship, or the basic content of specific disciplines, and rarely involve open content such as discipline frontier, market situation, policies and systems, practical technology, method application, and industrial development. The simple course content directly restricts its pertinence and effectiveness.

Dimensionality	Subdimension		The proportion of each scoring					
Dimensionality			$\begin{array}{c c} & \text{person} / \% \\ \hline 1 & 2 & 3 & 4 & 5 \end{array}$					
Course content	The teaching of basic or introductory theoretical knowledge	3.93	24.95	50.72	17.08	3.31		
	The penetration of cutting-edge content such as the latest scientific research results, policies, regulations and systems, and market information trends	2.90	13.98	45.24	32.19	5.69		
	The integration of innovation and entrepreneurship practices, cases and technical methods	3.11	12.53	43.37	25.61	5.38		
	The degree to which the course content is in line with the social market and industrial needs	3.42	12.01	49.28	30.43	4.87		

Table 3: Sorting out the content of innovation and entrepreneurship courses in Chengdu universities

C. Questions about the Curriculum implementation

As shown in Table 4, about 52% of students said that the overall student participation rate and penetration rate of the school's innovation and entrepreneurship courses are not high. Facing all students is the basic requirement for the development of innovation and entrepreneurship education. Only by ensuring a sufficiently high participation rate and penetration rate can the implementation

of innovation and entrepreneurship courses expand the coverage of beneficiary students and achieve the goal of injecting innovation and entrepreneurship, awareness and ability into every student.

As shown in Table 4, about 70% of students think that there is not much time and energy invested in the study of innovation and entrepreneurship courses, and about 60% of students think that the main role in the study of innovation and entrepreneurship courses is not fully played, which shows that students' enthusiasm and initiative to participate in innovation and entrepreneurship are generally not high. The effective implementation of innovation and entrepreneurship courses is inseparable from students' conscious and active investment in learning. Because only when students devote enough time and energy to course learning can they give full play to their initiative and creativity in participating in course teaching.

Table 4: Sorting out the implementation problems of innovation and entrepreneurship curriculum in Chengdu universities

Dimensionality	Subdimension	The proportion of each scoring person /%					
		1	2	3	4	5	
Curriculum implementation	Student participation rate and penetration rate of courses	4.14	15.11	32.61	38.20	9.94	
	The learning engagement of the course	8.49	20.60	41.30	25.26	4.35	
	How to play the main role of middle school students in the whole process of curriculum learning	4.94	16.67	38.61	35.61	4.14	
	Frequency of teacher-student communication and interaction in curriculum teaching	4.04	15.22	40.17	34.99	5.59	

As shown in Table 4, about 60% of students think that there is not much communication and interaction between teachers and students in the teaching of innovation and entrepreneurship courses. In the implementation practice of innovation and entrepreneurship courses, the interaction between teachers and students has fallen into an impasse: on the one hand, most theoretical courses are still based on the center of teachers, prevailing traditional teaching models, which are limited to teachers' "one-word" innovation entrepreneurship or professional theoretical knowledge teaching, and fail to give full play to their role in driving and guiding students' learning. On the other hand, practical courses such as innovation and entrepreneurship projects and competitions are either born out of the topic design of instructors, and they are completely and tended to follow the established ideas and technologies, and there is no way to show learning. The innovation and creativity of students are either completely handed over to students to participate in the declaration and exhibition practice.

## D. Questions about course evaluation

As shown in Table 5, about 65% of students said that the frequency of academic administrators and students participating in the evaluation of innovation and entrepreneurship courses is low, which shows that the innovation and entrepreneurship curriculum lacks multiple subject evaluation. At present, there are no independent and clear standards and methods for the evaluation of innovation and entrepreneurship courses. It mainly implements traditional unified curriculum evaluation standards and methods, focusing on intellectual knowledge acquisition, and insufficient attention is paid to the cultivation of innovation and entrepreneurship awareness, thinking, spirit, quality and ability.

As shown in Table 5, nearly 54% of students said that the results of the innovation and entrepreneurship curriculum evaluation were clearly oriented. At present, there are no independent

and clear standards and methods for the evaluation of innovation and entrepreneurship courses. It mainly implements traditional unified curriculum evaluation standards and methods, focusing on intellectual knowledge acquisition, and insufficient attention is paid to the cultivation of innovation and entrepreneurship awareness, thinking, spirit, quality and ability.

Dimensionality	Subdimension	The proportion of each scoring person /%						
		1	2	3	4	5		
Curriculum evaluation	The frequency of participation of academic administration staff and students in the evaluation of innovation and entrepreneurship courses	5.59	15.94	43.06	29.19	6.21		
	Degree of outcome orientation (papers, awards, projects, etc.) in the evaluation of innovation and entrepreneurship courses	1.86	6.42	37.89	44.72	9.11		
	The periodic guidance, supervision and feedback of the course teachers	2.59	12.32	37.06	39.96	8.07		

Table 5: Evaluation of innovation and entrepreneurship courses in Chengdu universities

As shown in Table 5, about 52% of students believe that the teachers of innovation and entrepreneurship have less phased guidance, supervision and feedback on students' studies, which shows that the phased evaluation of the innovation and entrepreneurship curriculum is insufficient. At present, whether it is theoretical courses or practical courses, most of them have a very high pass rate and a very low elimination rate, which greatly reduces students' academic challenges in learning innovation and entrepreneurship courses.

### **5. Discussion and Conclusion**

Curriculum is an important pillar and effective carrier of innovation and entrepreneurship education. The quality of curriculum construction is directly related to the comprehensive level of innovation and entrepreneurship education and the quality of innovation and entrepreneurship talent training. It is imperative for research universities to face the problem of curriculum construction and its causes, strengthen the integration and systematization of the innovation and entrepreneurship education curriculum from the perspective of system theory, coordinate the construction of key elements such as curriculum goals, structure, content, implementation and evaluation at multiple levels, and strive to build a highly unified, organically coordinated and orderly system, so as to further optimize and improve the construction of the innovation and entrepreneurship education curriculum system.

# 5.1 Reorganization of course objectives: organic unity of specialization, integration and personalization

First, establish the curriculum goal of characteristic innovation and entrepreneurship education that highlights academic standard and application characteristics. Innovation and entrepreneurship education are a common trend in the development of all colleges and universities in the knowledge and technology society. However, due to the introverted and self-centered nature of this special organization of research, it tends to support and develop scientific-oriented academic and scientific research projects, and regard the ultimate purpose of cultivating successors to disciplines<sup>[7]</sup>. In practice, it seems to be at a loss to change and transformation trend of innovation and entrepreneurship education, showing obvious dependence on traditional talent training models that

pay attention to knowledge and academic innovation preferences. As a result, innovation and entrepreneurship education has become a complementary marginalized education, and its curriculum construction is also weak progress. Therefore, the goal of the innovation and entrepreneurship education curriculum of research universities should highlight the standard and distinctive characteristics. It is committed not only to cultivating academic innovative talents in the field of subject knowledge, but also to cultivating academic entrepreneurial talents in the field of social practical services, so as to achieve a high degree of integration between academic innovation and entrepreneurship application.

Second, establish the curriculum goal of comprehensive innovation and entrepreneurship education for all students and ability orientation. The curriculum model of innovation and entrepreneurship education has undergone a change from "professional" to "wide-spectrum", and facing all students is its basic essence. In the large curriculum, the goals of innovation and entrepreneurship education are unified with the curriculum goals. Generally speaking, in "wide-spectrum" innovation and entrepreneurship education, innovation and entrepreneurship education is not a single narrow employment and entrepreneurship education, nor is it infinitely generalized innovation and entrepreneurship, rationality and practicality, aiming to cultivate the creative consciousness, pioneering spirit, entrepreneurship education in research universities needs to be led by innovation and entrepreneurship as the overall goal, and focus on cultivating students' innovative and entrepreneurial spirit, consciousness, thinking and ability, and promote the transition from passive employment to active innovation and entrepreneurship.

Third, establish the goal of personalized innovation and entrepreneurship education that integrates the differences between disciplines and majors and student groups. On the one hand, the basic trend of integrating innovation and entrepreneurship education into professional education requires that the curriculum goals of innovation and entrepreneurship education reflect the characteristics of disciplines and majors, integrate innovation and entrepreneurship elements into the talent training goals of different disciplines and majors, and enhance the professionalism and effectiveness of innovation and entrepreneurship education. Another in terms, the subjective characteristics of innovation and entrepreneurship education determine that the curriculum goal of innovation and entrepreneurship education determine that the curriculum goal of innovation and entrepreneurship education and entrepreneurship education training design and teaching. Therefore, the goal of the innovation and entrepreneurship education curriculum of research universities should also penetrate into the professional education of various disciplines, reflect the inherent characteristics and characteristics of disciplines and majors, and set differentiated and diversified development goals for student groups with different characteristics to avoid the "convergence" of cultivation.

## 5.2 Reorganization of course content: cross-coupling of general and professional knowledge and ability

In view of the organizational misunderstandings and implementation biases of "focusing on knowledge, over ability", "emphasizing general knowledge over major", "emphasizing theory over practice", "emphasizing foundation and putting effect" in the content of innovation and entrepreneurship education courses in current research universities, it must be reorganized through the cross-coupling of general knowledge and ability, so as to fundamentally reverse the content design of innovation and entrepreneurship education courses under knowledge-oriented and single discipline orientation. In this regard, it is required that the innovation and entrepreneurship education curriculum should not be limited to a single basic employment and entrepreneurship curriculum. It is necessary to further extend and expand to professional education and develop a large number of professional-oriented innovation and entrepreneurship courses. At the same time, it

is also necessary to vigorously build interdisciplinary innovation and entrepreneurship courses and innovation and entrepreneurship courses that highlight the characteristics and advantages of and form a comprehensive content involving students' innovative school-based, and entrepreneurship thinking training and ability training, including basic knowledge courses and professional courses, general courses and interdisciplinary courses, so as to enhance the universality and professionalism of the content of innovation and entrepreneurship courses. On the other hand, the content of the innovation and entrepreneurship education curriculum is required to coordinate the unification of knowledge and capabilities related to innovation and entrepreneurship, and enhance the basic, comprehensive, practical, practical, market and cutting-edge nature of the content of the innovation and entrepreneurship education curriculum. To sum up, these contents mainly include: First, innovation and entrepreneurship knowledge and skills: covering multidisciplinary knowledge and skills related to innovation and entrepreneurship practices, such as discipline professional or interdisciplinary and interdisciplinary expertise, basic theories, basic knowledge, skills knowledge and cutting-edge knowledge of general natural sciences, sciences, sciences of engineering and humanities and social sciences, as well as innovation and entrepreneurship policies and regulations, market analysis and operation, human resources management and achievement transformation and application. Second, innovation and entrepreneurship awareness and spirit: Innovation and entrepreneurship awareness and spirit are an internal driving force, a combination of problem awareness, objection-seeking consciousness, creative awareness, entrepreneurship awareness, market awareness, innovation spirit, exploration spirit, adventure spirit, creative spirit, entrepreneurship, self-improvement spirit and other internal qualities. It is an indispensable spiritual driving force support for students to consciously and actively carry out creative activities such as innovation and entrepreneurship learning, training and practice. Third, innovative entrepreneurial methods and practices. Innovation and entrepreneurship are inseparable from the guidance of methods, but also from the experience of practice. It can be learned through the teaching guidance and situational simulation experience of relevant theoretical content such as innovation and entrepreneurship methods, as well as the appearance and practical guidance of innovation and entrepreneurs, or the writing and implementation and operation of innovative and entrepreneurship project planning books<sup>[8]</sup>. Fourth, the comprehensive ability of innovation and entrepreneurship. Comprehensive innovation and entrepreneurship refer to the sum of innovation and entrepreneurship-related capabilities condensed on individuals. Its core is creative thinking and creative ability, including innovative thinking ability and entrepreneurial practice ability. Specifically, it covers the comprehensive use of professional knowledge and skills, discovering and putting forward new ideas, new problems and new ideas, exploring and practicing new methods, creating and pioneering, carrying out innovation and entrepreneurship practices and creating new things, as well as project entrepreneurial opportunity identification, entrepreneurial risk prevention, organization and management ability to manage new enterprises. In addition, it should also include basic contents such as social mission and responsibility, innovation and entrepreneurship policy system, legal norms, etc.

## 5.3 Innovation in curriculum implementation: coordinated interaction of "teaching", "learning" and "doing"

There is no doubt that the implementation of innovative and entrepreneurial education courses and promote the coordinated interaction of "teaching", "learning" and "do" is the key to ensure the quality and efficiency of innovation and entrepreneurship education courses. This requires: First, innovate the implementation of courses and make the use of teaching methods. It is necessary to highlight problem-oriented, practice-oriented and application-oriented, organize theoretical and practical teaching with problems as the center, and at the same time appropriately introduce exploratory teaching, case teaching, group teaching, experimental teaching, situational teaching, experience teaching and other diversified methods according to the established content of

innovation and entrepreneurship, so as to make innovation and entrepreneurship The transfer of knowledge has changed from static to dynamic. Second, effectively promote the interaction between teachers and students and strengthen students' independent learning. Teachers should guide students to carry out extensive discussions on the logic, method application and result demonstration of innovation and entrepreneurship topics, problems or projects, so that students can develop into active discoverers and constructors rather than passive recipients, and work together to cultivate and shape students. Innovative entrepreneurial thinking, consciousness and potential. At the same time, it is necessary to expand the scope and space of students' independent learning, strictly monitor and manage process learning, increase students' learning challenges and investment, implement students' main position in the classroom, and then strengthen students' independent learning ability, so that students can become active innovative and entrepreneurial actors. For practical courses, it is necessary to ensure the efficient interaction between project or competition instructors and students, and promote higher-quality innovation and entrepreneurship education results. Third, strengthen the practical links of the curriculum and integrate theory and practice. This requires that while the innovation and entrepreneurship theory courses develop in the direction of practice, they are integrated with relevant practical courses and activity courses, realize the effective combination of theory and practice through the combination of relevant bases and projects, and enhance students' innovation and entrepreneurship action and practice.

## 5.4 Reconstruction of course evaluation: scientific integration of process experience and learning results

In view of the current formalization and utilitarian pattern of curriculum evaluation of innovation and entrepreneurship education in research universities, it is urgent to be reconstructed in an all-round way, realize the scientific integration of process experience and learning results, build a reasonable and long-term innovation and entrepreneurship education curriculum evaluation mechanism, and promote the teaching of high-quality innovation and entrepreneurship courses for teachers and the high-quality innovation and entrepreneurship development of students.

First, change the evaluation orientation of the innovation and entrepreneurship education curriculum. In a certain sense, innovation and entrepreneurship education is the deepening of general education, quality education and professional education. As an open education model, it takes cultivating and improving students' pioneering spirit, adventurous spirit, autonomy, management ability, social ability and other comprehensive innovation and entrepreneurship capabilities as the starting point and foothold. The evaluation of students' learning achievements in innovation and entrepreneurship should not simply unitarily target whether to start a new enterprise, but should regard students' innovation awareness, pioneering spirit and entrepreneurship as their main goals. In this regard, the curriculum evaluation of innovation and entrepreneurship education should adhere to the rationalist orientation of promoting student development, and should not be replaced or even driven by instrumentalism and technology that characterize innovation and entrepreneurship.

Second, clearly formulate the evaluation criteria for the curriculum of innovation and entrepreneurship education. Unlike the general curriculum, the innovation and entrepreneurship education curriculum are unique. This determines that the curriculum standards of innovation and entrepreneurship education cannot be completely converged with ordinary curriculum standards, otherwise the new entrepreneurial elements and attributes of the curriculum will be annihilated. Therefore, research universities need to classify and build curriculum standards and build characteristic curriculum standards for innovation and entrepreneurship education courses. It can be completed in two ways: first, transform it based on the existing curriculum evaluation standards to appropriately integrate the elements and content requirements of innovation and entrepreneurship; second, to build independent and specialized content standards for innovation and entrepreneurship education courses and apply them to the evaluation of innovation and entrepreneurship courses. Third, promote the participation of multiple subjects in the curriculum evaluation of innovation and entrepreneurship education. The curriculum evaluation of innovation and entrepreneurship education should fully involve multiple subjects, so as to improve the objectivity, impartiality and science of the evaluation results. On the one hand, in the process of teachers evaluating the learning results of students' innovative and entrepreneurship courses, the link of students' mutual evaluation can be appropriately introduced to evaluate students' curriculum participation and learning quality in groups. On the other hand, in the process of evaluating the teaching of teachers' innovation and entrepreneurship courses, it is impossible to indirectly review the basic completion of curriculum teaching volume and students' course academic achievements and achievements. The active and extensive participation of academic administrators, heads of innovation and entrepreneurship education, experts from various disciplines, social entrepreneurs and students can be organized to make an objective judgment on the quality of curriculum teaching based on the subjective and objective results of each subject.

Fourth, the evaluation form and method of innovation and entrepreneurship education curriculum are comprehensive. The types and forms of innovation and entrepreneurship education courses are diverse, including not only basic and core theoretical courses in the form of knowledge transfer, practical teaching, thematic reports, case analysis, etc., but also professional practical activities in discipline competitions, training projects, practical projects, lecture education, tutoring training, social investigation, simulation experience, etc., as well as second-class student activities and innovation and entrepreneurship culture and environmental atmosphere shaping. This requires flexible, diversified and integrated design selection of curriculum evaluation forms and methods for innovation and entrepreneurship education, depending on the organization and development form of the curriculum, and different methods are applied according to different curriculum characteristics.

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