

## STUDY ON EVALUATION INDEX SYSTEM FOR ENTREPRENEURSHIP EDUCATION IN REGULAR COLLEGE AND HIGH VOCATIONAL COLLEGE

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### Abstract

*With the introduction of entrepreneurial education in colleges, the quality evaluation of entrepreneurship education is the key to further develop entrepreneurship education. In China, different types of colleges have different training objectives. As such, classified management and guidance for different types of colleges and universities and a multi-level entrepreneurship education evaluation system are required. Based on the analysis of the current problems of entrepreneurship education in China, the education evaluation content can be divided into four categories: entrepreneurship curriculum, teacher team, students, and entrepreneurial environment. This paper puts forward the evaluation system in regular colleges and high vocational colleges to promote the development of entrepreneurship education.*

Keywords. *Regular college; high vocational college; the evaluation of entrepreneurship education.*

JEL Codes. *I29; I23*

### Introduction

In 2015, the State Council issued a series of opinions on the policy measures to promote the innovation of the masses. “Developing Several Policy Measures for Public Innovation and Massive Innovation” and “Guiding Opinions on Developing Massive Space to Promote Public Innovation and Entrepreneurship” are the policies and opinions that promote “mass entrepreneurship and innovation” to the new normal (Zhang & Ru, 2016). Strengthening entrepreneurship education is the need of higher education in China, and it is also one of the essentials for future reform. According to the National Bureau of Statistics, “2015 Economic and Social Development Bulletin”, about 204,000 (or 3%) of the 2015 college graduates chose to start a business (independent entrepreneur). Among these graduates, the vocational and professional graduates were higher than the undergraduate graduates.

According to China's current education system, high education can be divided into two categories: regular colleges and high vocational colleges. The general goal of general education and higher vocational colleges is the same, but the objective of talent training is different. Regular colleges and universities aim at cultivating academic and compound talents, emphasizing that their students should have a deep understanding of the background of the major and its related professional knowledge while fully grasping their professional skills. The knowledge of the students is broad. The higher vocational colleges aim at cultivating applied and technical talents, professionally focus on vocational technology and carry out corresponding lectures for specific occupations of the social division of labor. The curriculum design is completely based on the corresponding professional needs in society. The entire curriculum system has highlighted the practicality and application (Li, 2006). Therefore, aiming at different types of regular colleges and high vocational colleges, the goal of innovation and entrepreneurship education is different, which requires the classification, management and guidance of different types of entrepreneurship education and the establishment of different innovative entrepreneurship education evaluation indicators system. However, the evaluation

of innovation and entrepreneurship education in regular colleges and high vocational colleges in China does not distinguish between regular colleges and high vocational colleges, which have their own characteristics, and the direction of the students' entrepreneurship also has obvious differences in the design of specific evaluation indicators, and the proportion of evaluation indicators are different. It is unreasonable to adopt the same quality evaluation system.

### **Literature Review**

From the existing literature, many theoretical and empirical studies have explored entrepreneurship education in regular colleges and high vocational colleges, one of which is to study the construction of entrepreneurship education evaluation system. Scholars use various methods to classify indicators from different perspectives. Among them, in the evaluation system of entrepreneurship education in regular colleges and high vocational colleges, the indicators are divided into several major categories. Xie and Liu (2007) constructed a first-level indicator, including students, teachers, teaching links, and the overall environmental and social benefits of the school. Gao, He, and Yang (2015) considered society, schools, and students as the three aspects to evaluate the University's Entrepreneurship Education. In literature, the Enterprise Education Evaluation Index is divided into three aspects: industry social support environment, system and resource supply, and student performance. For higher vocational colleges, Huang and Liu (2007) considered five aspects of the evaluation index: leadership, faculty, student quality, environment construction, and social prestige. Wang (2011) put forward five aspects of the system layer: entrepreneurship education management, pioneering education teacher, pioneering education teaching, pioneering education environment, and effectiveness of entrepreneurship education. Finally, Wu (2016) considered curriculum, teacher, student, and environment as one level index and established corresponding 9-two level index and 33-level index.

Through the study of the relevant literature, it can be found that although the specific index selection and the research methods are different, there is no big difference in the index selection between regular colleges and high vocational colleges. It shows that different types of universities have different roles in the evaluation system of entrepreneurship education. Therefore, based on previous research, this paper analyzes the problems that exist in the evaluation system of entrepreneurship education in different types of universities in China and puts forward the evaluation system of establishing the enterprise education in regular colleges and high vocational colleges.

### **Methodology**

#### *Status quo*

Entrepreneurship education is an educational activity to cultivate students' entrepreneurial quality. It was first proposed by UNESCO at the International Symposium on the Development Trend of Education in the 21st Century held in Beijing in 1989. The construction of the evaluation system of innovative entrepreneurship education is the need to realize the goal of talent training and the need to improve the core competitiveness of schools. It has been more than 20 years since China started education in regular colleges and high vocational colleges. Even though the result of innovation and entrepreneurship education is a concern of universities and government, quality evaluation is weak. China's regular colleges and high vocational colleges have not been able to establish a scientific, normative and adaptable enterprise education evaluation system.

*No clear standards established*

With the development of entrepreneurship education, research on the evaluation system of entrepreneurship education in regular colleges and high vocational colleges has gradually increased. There is much literature on the evaluation system of entrepreneurship education in regular colleges and high vocational colleges. However, when researching and constructing the evaluation system of entrepreneurship education in colleges and universities, the types of colleges and universities are often ignored. Also, the evaluation tends to adopt unified standards, ignores the characteristics of entrepreneurship education of different types of colleges, unclearly defines the standards of entrepreneurial quality, and lacks statistical analysis of index weights. That is, the evaluation system cannot accurately reflect the actual situation of entrepreneurship education in regular colleges and high vocational colleges.

*Too much emphasis on entrepreneurial competition*

Tsinghua University held its first business plan competition in China in 1998. It carried out the exploration and practice of entrepreneurship education and formed a pattern of entrepreneurial education. The students' entrepreneurial plan competition became the thrust of entrepreneurship education courses and international exchange, the first classroom, and the second classroom (Lu, 2006). As the business plan competition is held more and more frequently, it has become a contest between the strengths of various universities and has inevitable utilitarianism. There are obvious differences in the degree of participation and students' activity in these competitions between regular colleges and high vocational colleges because the direction and goal of the students' undertaking education are different and the evaluation of entrepreneurship education is important in most regular colleges and high vocational colleges. The competition cannot examine the learning outcomes of students' entrepreneurship education.

*Single subject of evaluation*

At present, the evaluation work of entrepreneurship education in regular colleges and high vocational colleges is mainly stipulated by the government. The education department or the school scope evaluates the entrepreneurship education of colleges and universities. The evaluation is limited to the school or the education system, and the participation at the social level is not strong. The scope of participation is closed. The government becomes the makers and evaluators of the evaluation of entrepreneurship education in regular colleges and high vocational colleges, making the subject of evaluation too unitary. At the same time, the evaluation method uses much expert judgment, which leads to the excessive subjectivity of evaluation and restricts the exertion of the evaluation function of entrepreneurial education.

**Classification and construction of evaluation system**

Colleges have great differences in training objectives and entrepreneurship education systems. It is necessary to combine the level, goal, content, structure, and teaching methods of entrepreneurship education in the design of evaluation indexes and selection methods. We should also consider the influence of students' individuality, family background, and entrepreneurial environment on the effect of entrepreneurship education (Dong, 2009). To get a reasonable and feasible index system, this paper divides the evaluation content of entrepreneurial education into four categories, namely, entrepreneurship course, teacher team, students, and entrepreneurial environment.

### *Regular Colleges*

#### (1) Entrepreneurship Courses

For regular colleges, the evaluation index of entrepreneurship course in innovative entrepreneurship education refers to the relevant courses that can improve students' willingness to start a business, increase their entrepreneurial knowledge, and improve their entrepreneurial ability. The course of entrepreneurship education in regular colleges should include the study of theoretical knowledge and the learning of entrepreneurial practice, focus on the training of high-level theoretical knowledge base, and provide theoretical guidance for the high-level students who have entrepreneurial intention in the general university, including the strategy of entrepreneurship, the law related to entrepreneurship, and financial issues. Entrepreneurship courses in regular colleges are mainly embodied in the opening rate of core courses through the number of hours of practice courses and the penetration degree of entrepreneurship education in the existing courses to evaluate innovative entrepreneurship curriculum design. Moreover, in the practice of entrepreneurship, regular colleges focus on the simulation of start-up companies and participation in the competition guidance. The measures include the proportion of entrepreneurship education-related courses, the proportion of lectures of entrepreneur interviews, the level of academic research, and the proportion of core courses.

#### (2) Teacher team

Generally speaking, compared with high vocational colleges, the quality of teachers in regular colleges is higher. They have deeper theoretical knowledge, certain innovative thinking and academic research capabilities. They have a good academic background and focus on the faculty of entrepreneurship education. The high degree of education and the proportion of high-level education have enabled them to publish their theoretical work on innovation and entrepreneurship education.

The factors that affect the teachers in regular colleges include academic qualifications, professional titles, entrepreneurial experience, the number of citations, and the transformation of innovation achievements.

#### (3) Students

Students are the object of innovative entrepreneurship education. The students' evaluation index is determined by the students' background and personality, which are mainly manifested in various innovation achievements and scientific research ability, including the number of students participating in various kinds of entrepreneurial competitions, the participation rate and attendance of entrepreneurial courses, the rate of participating in scientific research activities, and the achievement index of entrepreneurial rate.

#### (4) Entrepreneurial environment

Entrepreneurial environment refers to the entrepreneurial atmosphere and entrepreneurial campus culture created by policies and measures. It also includes the school's infrastructure construction and investment in entrepreneurship, which are the basis for students to carry out entrepreneurial activities. The environment can provide great support for students' entrepreneurship and can inspire students' entrepreneurial enthusiasm and willingness. The measures include the number of entrepreneurial associations in schools, the number of entrepreneurial competitions, the number of entrepreneurship research institutions, the number of school-enterprise cooperation projects, and the conversion rate of innovation achievements.

The evaluation index of innovation and entrepreneurship education in regular colleges is more inclined to evaluate entrepreneurship in academic research. Compared with higher vocational

colleges, regular colleges attach importance to the establishment of entrepreneurial design competitions and the construction of entrepreneurial platforms and the development of academic research. The situation also occupies a certain proportion and develops entrepreneurship education from a higher level. Specific indicators are set out in Table 1.

Table 1 Evaluation index of Entrepreneurship education in regular colleges

Evaluation system	First-level indicators	Level two indicators
Evaluation index of entrepreneurship education in regular colleges	Entrepreneurship courses	Number of hours of start-up courses
		Student participation rate in entrepreneurial courses
		Core curriculum opening rate
		The rate of interdisciplinary curriculum opening
		The proportion of lectures of entrepreneur visiting
		The opening rate of the course of entrepreneurship competition
		The degree of penetration of innovative entrepreneurial knowledge in existing curricula
	Teacher team	Proportion of high-educated education
		Proportion of senior titles
		The proportion of teachers with entrepreneurial experience
		Number of citations of papers
		The proportion of innovation achievement transformation
		Number of achievements in entrepreneurship education theory published
	Students	Student' satisfaction with entrepreneurship courses
		Number of students participating in various entrepreneurial competitions
		Students' achievements in innovation and entrepreneurship knowledge test
		The attendance of entrepreneurship courses
		Entrepreneurship rate
	Entrepreneurial environment	Number of entrepreneurial societies in schools
		Number of times to start a competition
Number of entrepreneurship research institutions in schools		
Number of school-enterprise cooperation projects		
Number of conferences and symposia		

### *High Vocational Colleges*

The development of entrepreneurship education in high vocational colleges has continued to rise despite it being a little later than that of ordinary colleges. According to the latest Max survey, higher vocational graduates have a higher percentage of self-employment than graduates. Compared with regular colleges, high vocational colleges have unique advantages and characteristics. Their basic task of cultivating ability in technology application and the professional quality and ability required in entrepreneurship education are close to market demand. Hence, the construction of the evaluation Index system of entrepreneurship education in high vocational colleges cannot be copied into the evaluation system of regular colleges.

#### (1) Entrepreneurship Courses

Nowadays, high vocational colleges not only have their own characteristics and specialities but also have their own characteristics in the course of entrepreneurship education. Since the establishment of vocational colleges, the education of high vocational colleges is integrated with the employment guidance. Later, the higher vocational colleges focused on the professional skills of entrepreneurs, and then some areas compared entrepreneurial education with regional economic development (Zhao, 2008). Entrepreneurship courses in high vocational colleges pay attention to the cultivation of students' ability to practice entrepreneurial skills so that the students can obtain specific entrepreneurial experience through the simulation of entrepreneurial experiments and social practice and so on. Compared with the evaluation index of entrepreneurship education in regular colleges, high vocational colleges pay more attention to the cultivation of practical ability, and the proportion of practical courses in the course of designing entrepreneurship is larger, which enhances the practical ability of the students' entrepreneurial skills and raises the level of the students' pioneering work through papers and activities. Entrepreneurial experience and many other assessment methods are used to conduct the final assessment of the course. Like regular colleges, high vocational colleges pay attention to the measurement index of the proportion of entrepreneur visit in the class. They also pay attention to the students through the actual position as the trainee staff, the rich social experience, and from the grass-roots positions to find innovative business direction.

#### (2) Teacher team

In general, the quality of teachers in high vocational colleges is lower than that of the teachers in regular colleges, and there is a gap in the academic title and scientific research level. As a result, there is less research produced by full-time teachers in high vocational colleges because they are mainly engaged in teaching and have a weak research ability. Part-time teachers are generally composed of retired university professors, first-line production technicians, and management personnel; however, they have rich practical experience and experience in entrepreneurship. Hence, in designing evaluation indicators, the practical experience, entrepreneurial experience and training experience, and enterprise attachment are more important indicators than the number of citations or the number of scientific research papers.

#### (3) Students

Student performance reflects the effect of innovative entrepreneurship education. To a certain extent, students of regular colleges have higher quality than those of high vocational colleges. The students in high vocational colleges also have a certain gap when they accept innovation and entrepreneurship education. At present, China has held a variety of entrepreneurial design competitions, such as the National University of the Challenge Cup. For high vocational college students, this kind of competition has a more challenging spirit. Compared with the index of participating in Entrepreneurship Competition and research projects, the students in

high vocational colleges pay more attention to entrepreneurial practice courses and entrepreneurial activities.

#### (4) Entrepreneurial environment

In the construction of the entrepreneurial environment, the national policy tends to focus on the general universities, especially the "985" universities. However, for "211" universities and other key universities, the government gives more support for entrepreneurship through the provision of special venture funds. Most high vocational colleges do not have enough financial resources to establish a platform for students to practice platform; hence, the strength of the high vocational colleges should be fully considered in the construction of the evaluation index of entrepreneurship education. The number of entrepreneurial research institutions in higher vocational colleges and the number of entrepreneurial competitions is small. More emphasis is placed on the campus activities of higher vocational colleges, such as the creation of a variety of entrepreneurial clubs and associations, attracting many students interested in entrepreneurship to understand entrepreneurship and aspirations. Hence, the entrepreneurial atmosphere of campus activities is meant to cultivate students' entrepreneurial awareness and entrepreneurial quality. Unlike ordinary universities, the training objective, training models, professional setting and service orientation of entrepreneurship education in high vocational colleges are different from the those of ordinary universities. These differences, therefore, should be reflected in the indicators. Also, the weights of some of the same evaluation indexes should be different, as shown in Table 2.

The construction of the quality evaluation system of entrepreneurship education in higher vocational colleges should consider that teachers and students of higher vocational colleges have disadvantages in terms of academic depth, scientific research, infrastructure, and so on. Hence, the evaluation system should be rationally adjusted to meet the characteristics of higher vocational colleges.

Table 2 Evaluation index of entrepreneurship education in high vocational colleges

Evaluation system	First-level indicators	Level two indicators
Evaluation index of entrepreneurship education in high vocational colleges	Entrepreneurship courses	The categories of entrepreneurship courses
		Student participation rate in entrepreneurial courses
		Number of hours of practice courses such as simulation start-up companies and market research
		Internship time
		The proportion of lectures of entrepreneur visiting
		The degree of penetration of innovative entrepreneurial knowledge in existing curricula
	Teacher team	The proportion of teachers with entrepreneurial experience
		Proportion of teachers with training experience
		Teacher to Enterprise attachment training
		Proportion of part-time teachers with rich entrepreneurial teachers
		The relevant knowledge assessment of innovative entrepreneurship education
	Students	Students ' satisfaction with entrepreneurship courses
		Quality of internship report, such as innovative business plan
		Students ' achievements in innovation and entrepreneurship knowledge test
		The attendance of entrepreneurship courses
		Entrepreneurship rate
	Entrepreneurial environment	Number of entrepreneurial societies in schools
		School practice base capacity
		Teachers and students ' awareness of entrepreneurship

### **Possible findings**

The construction of the evaluation index system of entrepreneurship education should be based on the types of colleges. Based on the actual situation and characteristics of the colleges, different indexes to carry out an objective and scientific evaluation of entrepreneurship education and guide the diversified development of innovative entrepreneurship education should be refined. There are differences in the orientation of talents cultivation between regular colleges and high vocational colleges. While regular colleges focus on strengthening the basic theoretical knowledge in entrepreneurship education and academic research, high vocational colleges attach importance to the combination of a professional setting and regional economy and cultivate suitable talents for marketability. The evaluation index design of entrepreneurial education attaches more importance to the cultivation of ability in technical application.



### *Classification management*

To avoid the waste of educational resources and the overlapping of entrepreneurship education in various universities, the state and local governments should issue directive opinion according to the type of university, the development level of the discipline speciality, and the target orientation of training talent. China should make clear about the development goal and development idea of different types of schools, carry out classified management of colleges, and guide the development of university characteristics. To guide the diversified development of entrepreneurial education, the government should explore a variety of university entrepreneurship education system. The government should guide the policy and supervise the management and provide policy support for the self-orientation and self-development of the university. The government should also allocate entrepreneurial education resources, carry out classification evaluation, and promote the development of entrepreneurial education according to the characteristics and types of colleges and universities.

### *Multi-level evaluation system*

Through the establishment of a multi-level evaluation system in different types of colleges, the goal of entrepreneurial education is refined, the aim of the evaluation of entrepreneurship education in colleges is separated, and the achievement of students' entrepreneurship education is assessed to meet the students' motivation in undertaking such an education. At the same time, to access the university's entrepreneurship education performance that links to their funding allocation, an entrepreneurship education guidance is established for the institutions. The entrepreneurship education project research and development fund are used as an incentive mechanism to guide the colleges to establish the entrepreneurship education that suitable for their types of colleges and school situations.

### *Evaluation of subject diversity*

From the perspective of evaluation, the main body of entrepreneurship education evaluation generally includes the government, society, and schools. Because each stakeholder has different perspectives of evaluation, the content of the evaluation of entrepreneurship education in colleges is different, and the result of the evaluation is certain to differ. At present, the evaluation of entrepreneurship education in colleges could be further improved; the social evaluation is generally conducted by non-governmental organizations and public opinion that are not based on the effectiveness of entrepreneurship, instead of, based on the overall evaluation of a sample of graduates (Gao, 2010). Therefore, in evaluating the entrepreneurship education of regular and high vocational colleges, the stakeholders should strengthen the flexible diversity and different level subjects (government, society and school) and co-operate the various perspectives of entrepreneurship education.

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