

## Problems and Countermeasures in the Teaching Quality of Innovation and Entrepreneurship Education in Undergraduate Universities

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**Abstract:** In recent years, due to the large range of colleges and universities to expand enrollment, resulting in graduates in the graduation season to find a job are suffering great pressure. At the same time, due to the great pressure of employment, many students choose to start their own businesses. Colleges and universities also pay more and more attention to relying on students to start their own businesses to drive the quality and employment quantity of their old businesses. After graduation, self-employment of students is increasingly recognized by the society and has become a new channel of employment. But at the same time, it should be noted that in the current situation, the innovation of university entrepreneurship education is still at the initial stage, many teaching system has not yet formed, the university students' innovative undertaking education also has certain limitation, most of the lack of innovation in colleges and universities entrepreneurship education funds and professional teachers, training conditions are not ideal. Will be according to the above factors, this article from the current stage, the relevant units of the importance of creative education in colleges and universities, the teachers troop construction, open innovation entrepreneurship curriculum system and practice activities, students innovative consciousness, ability and entrepreneurship thinking aspect to discuss and put forward to solve the current colleges and universities in the outstanding problems that exist in the innovation of entrepreneurship education initiatives.

### 1. Introduction

In 2016, China began to implement the innovation-driven development strategy, and subsequently, all regions and departments, especially universities, began to carry out innovation and entrepreneurship mass entrepreneurship work, significantly improving the achievements of innovation and entrepreneurship<sup>[1]</sup>. Since 2018, the focus of innovation and entrepreneurship in China has shifted from quantity to quality, and the improvement of connotation has become a new target of mass entrepreneurship and innovation<sup>[2]</sup>. Since 2016, major universities in China have started to take innovation and entrepreneurship education reform as an important breakthrough to deepen education reform to varying degrees. Major universities have started to take cultivating college graduates with innovation and entrepreneurship ability as the key agenda of innovation and entrepreneurship<sup>[3]</sup>. Up to now, there are 982 colleges and universities offering innovative entrepreneurship education courses in China, accounting for 87.7% of the total number of colleges and universities in China, and the number of college students participating in the teaching of innovative entrepreneurship courses has reached 3.5 million person-times<sup>[4]</sup>. Universities also take an active part in the construction of innovation and entrepreneurship parks, and the construction area of the site increases at a rate of about 20% every year<sup>[5]</sup>. In this context, how to establish an accurate assessment of the quality of innovation and entrepreneurship education and how to timely and effectively regulate the quality assessment system of innovation and entrepreneurship is particularly important<sup>[6]</sup>.

Foreign college students' innovative entrepreneurship education in colleges and universities is roughly began in the 1950 s, when American colleges and universities teachers ambitious global creativity led plan is put forward, and then caused a warm response from around the world,

especially in the western developed capitalist countries set off a heated discussion, thus the study of creativity introduces the trend of The Times<sup>[7-9]</sup>. In the late 1950 s, the United States and the Soviet union's world domination into small climax stage, the people of the United States by the potential pressure brought about by the rapid development of science and technology, the Soviet union began to pay more attention to the importance of innovation education, and begin to put innovative education into education, made it clear to enhance the strength and level of innovation education, the goal is clearly in order to strengthen the national defense capabilities and improve their level of<sup>[10, 11]</sup>. Compared with the research time of foreign countries on innovation and entrepreneurship, China is relatively late to carry out this aspect. However, it cannot be ignored that we are catching up with the newcomers and the research results have increased significantly<sup>[12,13]</sup>. In the initial stage, Chinese scholars focused their research on the construction of evaluation system. With the development of practice, the current research of Chinese scholars also began to turn to take the problems existing in practice as the guidance and improve the education level of innovation and entrepreneurship as the purpose<sup>[14]</sup>.

In this paper, the background and implementation significance of innovation and entrepreneurship education were described scientifically. Then, well-known universities in China were selected as survey samples for investigation and research. After sorting out the data, the quality evaluation system of innovation and entrepreneurship education in universities was sorted out<sup>[15]</sup>. This paper also carried out a more credible empirical analysis on the results of the questionnaire survey to verify the reliability, scientificity and feasibility of the evaluation system, and finally put forward corresponding countermeasures and Suggestions for the problems found in the questionnaire.

## **2. Method**

### **2.1. Theoretical Overview**

#### **2.1.1. Innovation and entrepreneurship education**

Generally, innovation and entrepreneurship education is an educational model that includes innovation and entrepreneurship education in a broad sense. Innovation education focuses on cultivating students' innovation spirit and innovation ability. Innovation spirit can be understood as whether students have the perception ability of creativity and whether they are interested in and yearning for innovation behavior. Entrepreneurship education tends to improve students' ability to start a business and enhance their innovative spirit. Its goal is to cultivate people with pioneering thinking and innovative spirit in the process of starting a business. Therefore, in the process of cultivating students, we must pay attention to improving students' creativity and entrepreneurial sentiment, and set the course as the direction of pursuing professional skills, working ability, social ability and management ability.

#### **2.1.2. Connotation of teaching quality evaluation**

The connotation of teaching quality evaluation is to put forward a whole set of programs to evaluate the achievement of innovative education in order to improve the quality of innovative education. It is a series of overall evaluation process of the process and results of innovation and entrepreneurship education based on the comprehensive collection of materials and collation of relevant data, and under the guidance of specific innovative education objectives, relying on scientific methods. It is characterized by objectivity, practicability and scientificity, and it is also the value description and judgment of the innovative education process and the results produced. Teaching quality evaluation method is not fixed and unique, according to different classification standards can have different evaluation categories. From the function of evaluation, it can be divided into summative evaluation, process evaluation and diagnostic evaluation. According to the different evaluation methods, it can be divided into quantitative evaluation and qualitative evaluation. From the perspective of evaluation object, it can be divided into student evaluation and teacher evaluation. From the level of education, it can be divided into vocational and technical

evaluation, higher education evaluation, basic compulsory education evaluation.

## **2.2. Evaluation Method of Innovation and Entrepreneurship Education Quality**

### **2.2.1. Empirical ranking**

In the study of this paper, the empirical ranking method is to assign values to the evaluated object according to the subjective intention of the evaluator, and then sort the scores of all evaluators on the evaluated object according to certain rules, so as to determine its advantages and disadvantages. In the study of this paper, this method has the advantages of easy implementation and easy to use, but also has the evaluation results mixed with a lot of subjective feelings of evaluators, which to some extent affects the objectivity.

### **2.2.2. Quantitative transformation weighting method**

The quantitative transformation weighting method and the empirical ranking method are very similar. Both of them are based on the evaluator's cognition of the evaluated object. The difference is that the quantitative transformation weighting method needs some algorithms to determine the weighted achievement value of the evaluation index. This method is also a practical application combining qualitative analysis with quantitative analysis, which makes it more objective and feasible in evaluation cases. In addition, this method requires a high consistency of evaluation object attributes, so it lacks flexibility.

## **3. Experiment**

### **3.1. Experimental Data Sources**

The survey data in this paper are from a questionnaire survey of students in a well-known university in China. The questionnaire survey is conducted in the form of random interviews with students and teachers in the university, from which prominent problems in innovation and entrepreneurship education are found. The purpose of this paper is to cover a wide range of subjects in grade, major and other aspects as far as possible, with clear survey levels, so as to ensure good representativeness and research value of the data.

### **3.2. Experimental Objectives**

Consistent with the research topics, for the purpose of this study is through the well-known colleges and universities for innovation entrepreneurship education present situation of the understanding and analysis, so as to dig out the nationwide general situation, find out the key factors that affect innovation entrepreneurship education, and puts forward corresponding Suggestions and methods, make the universities students can happy into the innovation of the entrepreneurial education activities, and the growing need of talents for the society.

### **3.3. Experimental Steps**

As this experiment tries to involve students from different levels, the selected subjects also have different professional backgrounds and knowledge structures. Therefore, at the beginning of the questionnaire, paper questionnaire and electronic questionnaire were established to conduct the survey. After the questionnaire was recovered, in order to avoid the problem of single sample caused by personal factors of respondents, all questionnaires were checked twice in this experiment to ensure the validity of the questionnaire data. Finally, in the process of questionnaire survey, this experiment timely updated the questionnaire questions, eliminated the meaningless questions and added valuable clues, so as to ensure the scientificity of the questionnaire.

## **4. Discuss**

### **4.1. Analysis of Survey Results**

In this questionnaire survey, a total of 500 questionnaires were distributed to college students,

and 500 were actually recovered. 23 invalid questionnaires were eliminated, and 477 valid questionnaires were issued, accounting for 95.4%. Among the respondents, 278 undergraduate students occupy the main part of the respondents. A total of 113 graduate students, accounting for 24%; Junior college students 86 people, accounting for 18%. In terms of discipline structure, 51 students, accounting for 11%, studied literature. The total number of medical students was 32, accounting for 7%. Finance students total 59, accounting for 12%; The total number of students majoring in administration is 26, accounting for 5%. There are 37 students majoring in computer science, accounting for 8%. The total number of students majoring in civil engineering was 41, accounting for 9%. There were 39 agricultural students, accounting for 8%. The total number of students majoring in management was 63, accounting for 13%. The specific structure of the sample is shown in table 1 below.

Table 1 Sample structure

	Category	Proportion	Total
Students in class	Undergraduate course	58.28%	477
	Graduate student	23.69%	
	University college	18.03%	
Professional category	Section	10.69%	477
	Medical	6.71%	
	Finance	12.37%	
	Administrative science	5.45%	
	Computer science	7.76%	
	Civil engineering	8.60%	
	Agronomy	8.18%	
	Management	13.21%	
	Other	27.04%	
Gender	Male	49.48%	477
	Female	50.52%	

#### 4.1.1. Reliability Analysis

Cronbach alpha reliability coefficient analysis method was adopted in this paper to analyze the internal consistency of the questionnaire through the homogeneity test survey. The higher the reliability coefficient, the more stable the data results of the questionnaire are. In this field, the most recognized optimal reliability value is  $\alpha \geq 0.7$ . This paper analyzes the reliability from the aspects of learning interest, attention, learning style, resource allocation and learning effect. Specific reliability test results are shown in figure 1 below.

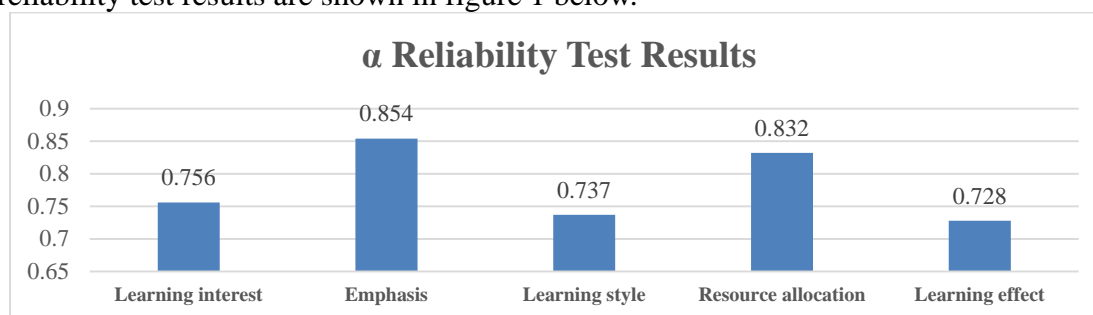


Fig 1. Alpha reliability test results.

From the analysis results, it can be seen that the reliability of the questionnaire survey data of college students in this university are all above 0.7, indicating that the questionnaire design is ideal, the data consistency is good, and the reliability is high.

#### 4.1.2. Validity analysis

In this paper, starting from the structural validity, validity analysis was conducted on relevant data. KMO values of all indicators were greater than 0.5, and significance test results were all less

than 0.01, indicating that the structure of the questionnaire met the requirements. Specific results of validity analysis are shown in table 2 below.

Table 2 Results of validity analysis

Attribute	Q-ID	Factor load value	KMO value	Significance test
Learning interest	1	0.786	72.68%	0.00022
	2	0.842		
Emphasis	3	0.821	75.12%	0.00033
	4	0.795		
	5	0.763		
Learning style	6	0.885	73.46%	0.00025
	7	0.701		
	8	0.845		
Resource allocation	9	0.739	69.41%	0.00021
	10	0.816		
*Data in the table are derived from the data collected from questionnaire				

## 4.2. Existing Problems

Through the whole questionnaire, it can be found that the following problems generally exist in the process of innovation and entrepreneurship education in colleges and universities.

First, the degree of attention is not high. Although most colleges and universities have carried out innovation and entrepreneurship course teaching in accordance with the national policies, we must face up to the fact that a large number of colleges and universities offer this course purely for the purpose of carrying out the orders of their superiors, and there is a problem that teaching is merely formal.

Second, the curriculum system is not perfect. It is mainly reflected in the narrow coverage of courses, weak innovation of courses, and poor quality of courses. Besides, the teaching link only stays at the theoretical level, but fails to return to the essence of practice.

Third, students' awareness of innovation is weak. More college students have problems such as lack of confidence, lag in obtaining information, poor active learning ability and low execution ability. Some students lack the number target and blindly follow the trend without understanding their actual needs.

## 4.3. Solution Strategy

Colleges and universities are the frontier of emancipating the mind and the hotbed of innovation. Under the protection and encouragement of national policies, colleges and universities should break through the limitation of development in the following aspects.

First, based on the characteristics of the school, pay attention to the development prospects of innovation and entrepreneurship education, with the purpose of cultivating application-oriented and market-oriented talents, and fundamentally remove the practice of mere formality.

Second, colleges and universities should carry out innovation and entrepreneurship education curriculum reform to cultivate students' strong market awareness and market strain ability.

Third, cultivate students' sense of market agility. In the major setting, students should be closely combined with the needs of the market, given more entrepreneurial environment when carrying out innovation and entrepreneurship education, make full use of external resources, and actively cooperate with enterprises and local governments to make up for the shortage of resources.

## 5. Conclusion

The implementation of innovation and entrepreneurship education in colleges and universities is not only a strategic requirement, but also the internal need of the school's own development, as well as the needs of the country, society and students' own development. Facing the problems existing in the innovation education innovative undertaking, only oneself, dare to break through, increasing

importance, stimulate students' enthusiasm and creativity, improve the teachers troop construction, improve the innovative entrepreneurial environment, cooperation and further promote the cooperation between colleges and the school authority, carry out cooperation and win-win concept, to make innovation entrepreneurship education efficiency, orderly development, thus for our country's modernization transportation group after group of innovative people team.

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