A Study on the Evaluation Index System of Innovation and Entrepreneurship Education for Undergraduate Students Majoring in Interdisciplinary Arts and Sciences

Dan Yao[1], Jingjing He[1], Weiyi Yang[1] & Mu Zhang[1]

[1] Shenzhen Tourism College, Jinan University, Shenzhen, China

Correspondence: Mu Zhang, Shenzhen Tourism College, Jinan University, Shenzhen, Guangdong Province, China. Tel: 86-138-2438-8695. E-mail: zhangmu@163.com

Abstract

Innovation and entrepreneurship education develop rapidly in China, but the teaching varies considerably in quality. Therefore, it is very important to systematically construct an evaluation index system of innovation and entrepreneurship education. The speciality setting of comprehensive universities has the characteristics of interdisciplinary. The research selected the Shenzhen Campus of Jinan University as a case study. Based on literature research, the research constructed an evaluation index system of innovation and entrepreneurship education for undergraduate students majoring in interdisciplinary arts and sciences, which is composed of 4 primary indexes and 19 secondary indexes. In total, 234 respondents were surveyed and Importance-performance Analysis modelling was performed to analyze the innovation and entrepreneurship education situation of the research object. Results show that the most important evaluation index to be improved is the innovative service platform. The findings of this study would be of use to the development of innovation and entrepreneurship education in other similar universities.

Keywords: interdisciplinary arts and sciences, evaluation index, innovation and entrepreneurship education, IPA

1. Introduction

Since the "innovation and entrepreneurship education" was first proposed in 1998, China has continuously strengthened the incentive and development of innovation and entrepreneurship education, and diverse innovation and entrepreneurship activities have also been carried out in various localities. The 14th Five-Year Plan points out that "adhere to the development of innovation and entrepreneurship, and comprehensively shape new advantages for development", "stimulate the vitality of innovation and implement the employment priority strategy"(Xinhua net, 2021). As colleges serve as one of the main fields of talent training, among which college students serve as the reserve army of entrepreneurship and innovation development, China has continuously encouraged and promoted the development and improvement of innovation and entrepreneurship education mechanisms in colleges. At the same time, universities are constantly trying to explore and accumulate innovation and entrepreneurship education. The goal of innovation and entrepreneurship education tends to cultivate compound talents who have innovative and entrepreneurial consciousness, innovative and entrepreneurial quality, pioneering spirit, the courage to practice and explore, and the ability to face multiple opportunities and challenges. The development direction of each discipline for professional knowledge in colleges also tends to cross development and interdisciplinary integration development.

However, the research on the evaluation system of innovation and entrepreneurship education is still in the early stage of exploration, and there is no recognized paradigm (Song, Pan, Tian, & Zhang, 2020).

Based on prior literature, the research proposes an evaluation index system of innovation and entrepreneurship education for undergraduate students majoring in interdisciplinary arts and sciences and studies the development status of innovation and entrepreneurship education for undergraduate students in Jinan University Shenzhen Campus. Then try to do an evaluation to predict the direction of improving and developing innovation and entrepreneurship education.

2. Literature Review

2.1 Development of Innovation and Entrepreneurship Education Abroad

The earliest literature on innovation and entrepreneurship education is classified under the study of entrepreneurship education. Due to the early rise of entrepreneurship education research abroad, the definition is not consistent at the beginning. Many studies on entrepreneurship education include innovation education. In 2016, some scholars proposed that entrepreneurship education should evaluate educational achievements from the perspectives of implementation and innovation (Scott, Penaluna & Thompson, 2016).

Literature on entrepreneurship education is mainly divided into three directions. First, discuss the goal of entrepreneurship education. Pardo (2013) once explored the goals of entrepreneurship education and emphasized the importance of clear goals, as this is an important prerequisite for developing teaching methods and constructing evaluation systems.

Second, study teaching methods. Some scholars believed that the teacher-centred passive teaching method cannot achieve the educational goals well, so they proposed to incorporate the student-centred teaching method into innovation and entrepreneurship education. That was to create a suitable environment to encourage students to actively learn knowledge, rather than simply let the teacher impart knowledge to students (Harkema & Schout, 2008; Mwasalwiba, 2010; Tasnim, 2012). Some scholars put forward the "experiential method". This method is practised in various ways to achieve the purpose of entrepreneurship education, including learning in projects, carrying out practical training in enterprises, starting a business, etc. (Ahmad, Abu Bakar, & Ahmad, 2018).

Third, some scholars researched educational outcomes. From the perspective of evaluation, Scott, Penaluna and Thompson (2016) believed that teaching effects should be evaluated from two perspectives: implementation and innovation. Shekhar, Huang-Saad and Libarkin (2018) studied the factors influencing students' participation in the entrepreneurship education program and obtained six main variables influencing students' participation intention.

2.2 Development of Innovation and Entrepreneurship Education in China

Domestic research on innovation and entrepreneurship education has three directions, which are to discuss the integration with professional education, explore the education and talent training model, and study the practice of theoretical application.

Faced with the integration of innovation and entrepreneurship education and professional education, most of the training methods in domestic universities are closely combined with professional education, forming the innovation and entrepreneurship education model with the characteristics of each college and speciality (Yan, & Qu, 2017). At present, there are two directions for the exploration of innovation and entrepreneurship education and talent training mode. Some scholars believed that comprehensive "maker education" should be carried out for different talents to cultivate the maker spirit and the composite exploration ability (Yang, 2020). The other scholars argued that innovation and entrepreneurship education should be popularized and expanded to basic education and secondary education. They believed that innovation and entrepreneurship education should be combined with basic general education to cultivate the spirit of innovation and entrepreneurship from an early age (Li, & Wang, 2019). Moreover, scholars focus mainly on the curriculum system setting and resource accumulation of innovation and entrepreneurship education. In the research of theoretical application and practice, many universities carry out the strategy of university-industry cooperation, which pay attention to the combination of theory and practice. The Pioneer Park of Central South University mainly serves students. Operators of the park are limited to students of Central South University, and the park is dominated by students' independent management. Now, more than 220 companies have been stationed in the park.

2.3 Development of Innovation and Entrepreneurship Education Evaluation System in China

After a literature search on CNKI with the innovation and entrepreneurship education evaluation system as the keyword, 624 relevant pieces of literature were identified. CiteSpace was used to analyze literature from 2007 to 2020 in the unit of the year, and the keywords co-occurrence diagram and keyword time zone diagram were obtained as shown in Figure 1 and Figure 2 (Chen et al., 2015).

Figure 1showed that innovation and entrepreneurship education was first proposed from the perspective of talent training mode. Most of the research objects are vocational colleges, which may be related to the fact that the teaching content of vocational colleges lays emphasis on technology and can be faster to start a business monetization. In 2006, Zhang and Gu (2006) put forward the "three elements" (creation, innovation and entrepreneurship) talent training mode whose main goal is to cultivate students to start businesses. In 2007, Huang and Liu (2007) proposed the thinking of constructing the evaluation system of innovation and

entrepreneurship education for vocational college students out of the need for a talent training strategy. Later, such pieces of literature can be seen continually. Wang (2012), Feng and Tong (2013), Hong (2015) and other scholars have published articles on this. The research on the construction of the evaluation system of innovation and entrepreneurship education has also changed from being applied to most universities (Wang, 2012), to research universities (Feng & Tong, 2013), and then to applied universities (Hong, 2015). It can be seen that the research in this aspect is gradually dividing and becoming mature. After 2015, there are no large keyword nodes, indicating that no new research hotspots have been formed in the field of the innovation and entrepreneurship education evaluation system in recent years. The research topics of domestic scholars are scattered, or they choose existing topics to carry out more in-depth theoretical and empirical research. Some scholars conducted an empirical study on the influencing factors of innovation and entrepreneurship education performance based on 596 universities in China (Zhuo, Ren, Li, & Yu, 2020). Some scholars also designed an evaluation system of innovation and entrepreneurship education from the perspective of the consumer-oriented evaluation model theory (Jia, & Yao, 2019), and some scholars built an evaluation system of innovation and entrepreneurship education suitable for universities along the Silk Road from the perspective of regional characteristics (Li Sheng, Zha, & Li Chunke, 2021). There are not a few comprehensive universities in China, and the professional settings are interdisciplinary. In order to better respond to the national strategy of "mass entrepreneurship and innovation", it is of theoretical and practical significance to deepen the reform of innovation and entrepreneurship education in colleges and build an evaluation index system of innovation and entrepreneurship education for undergraduate students majoring in interdisciplinary arts and sciences.

In addition, domestic scholars also discussed the classification and selection of evaluation indicators. Zhu and He (2020) chose the evaluation index based on two aspects of "process-result". Xu (2019) proposed a three-dimension theoretical structure model of "value-process-result" evaluation of innovation and entrepreneurship education. Ge (2014) introduced the CIPP educational evaluation model to select indicators from four aspects: background, input, process and outcome. Jia and Yao (2019) chose indicators directly from the perspective of students, taking students -- consumers of innovation and entrepreneurship education as the core. Although the research perspective is different and the indicators are also different, it provides a rich theoretical basis and reference for the selection of indicators of the evaluation system in this study.

As shown in Figure 2, in recent years, Analytic Hierarchy Process (AHP) has been applied by most scholars in the construction of an evaluation system, and some scholars have applied an improved BP neural network evaluation model and method (Feng & Tong, 2013), fuzzy comprehensive evaluation method (Hong, 2015) and other methods to carry out research, each with its own advantages and disadvantages.

What's more, some foreign scholars used the IPA model to evaluate the education industry. Importance-performance Analysis (IPA) is a recognized and effective technique for evaluating elements of a marketing plan. It can evaluate a marketing plan against several important attributes as well as the existing effects of these attributes. The results of this technique can be graphically displayed in a simple and easy to understand two-dimensional grid, which is conducive to all kinds of subsequent analysis. These advantages of IPA allow most educators to quickly and easily determine which parts of the education system need to be improved so that they can improve the whole innovation and entrepreneurship education system with priority, and achieve better improvement results with limited resources.
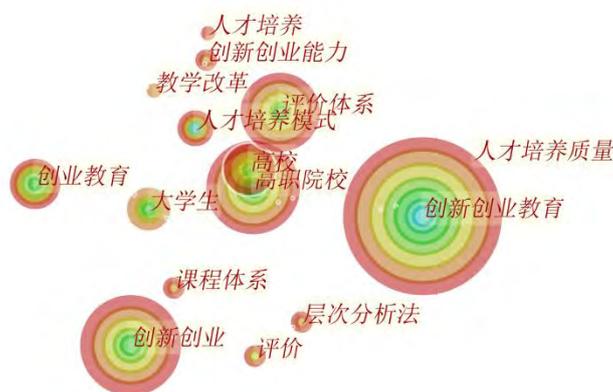

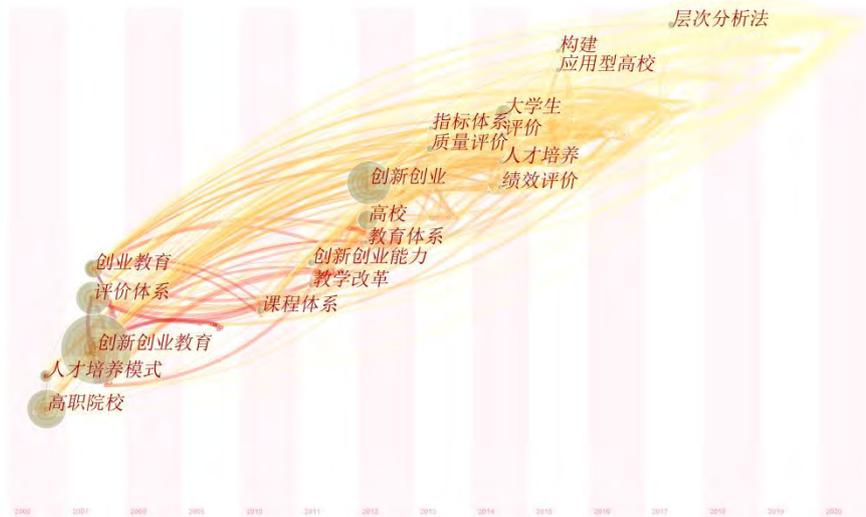Figure 1. Keywords co-occurrence diagram

Figure 2. Keyword time zone diagram

3. Research Design

3.1 Case Study

Jinan University Shenzhen Campus is selected for this case study. In terms of innovation and entrepreneurship, Shenzhen has the advantages of vitality, high quality and a high level of internationalization. Besides, the policy to support innovation and entrepreneurship is relatively complete, and the innovation and entrepreneurship atmosphere of universities is relatively strong. Jinan University Shenzhen Campus relies on the Tourism Experimental Teaching Demonstration Center to carry out innovation and entrepreneurship education, and there are seven majors on the campus, which are interdisciplinary. Therefore, Jinan University Shenzhen Campus is a suitable object to study the evaluation index system of innovation and entrepreneurship education for undergraduate students majoring in interdisciplinary arts and sciences.

3.2 Innovation and Entrepreneurship Education Evaluation Index System

Based on the literature review and the actual situation of innovation and entrepreneurship education, the evaluation index system of innovation and entrepreneurship education constructed in this research includes two levels. The primary indexes include five elements: innovation environment, innovation resource, Effect of innovation and innovation achievement. The secondary indexes include 20 indexes, as shown in Table 1.

Table 1. Extracted 20 innovation and entrepreneurship evaluation indexes

Primary Index	Secondary Index	Index Description
Innovation Environment	Financial support	Related financial support
	Regional economic development	Regional economic development
	Regional upstream enterprises	Number of upstream enterprises in the region
	Policy support	Government support for innovation and entrepreneurship
	Publicity	Government propaganda efforts for innovation and entrepreneurship
	Innovation and entrepreneurship competition held	Number of innovation and entrepreneurship competitions
	Training offered	Innovation and entrepreneurship training and seminars
Innovative Resources	Innovative curriculum provision	The proportion of innovative practice courses
	Number of participants in the course	Number of students covered by innovation and entrepreneurship courses
	Course content	The degree of combination of the course and regional characteristics
	On-campus faculty	The number of teachers in the school and the theoretical level of innovation and entrepreneurship
	External faculty	Number and ability of external tutors
	Supporting laboratory	The relevant laboratories of the school are set up and effectively used
	Innovation service platform	The university provides services and places to meet the needs of innovation and entrepreneurship
Effect of innovation	Students' innovative thinking	Students' innovative thinking and learning ability have been improved
	Students' entrepreneurial ability	Students' entrepreneurial abilities (such as management, operation, leadership, etc.) are improved
	Student self-efficacy	Improvement of students' innovation and entrepreneurship self-efficacy (i.e., the degree of confidence in completing tasks related to innovation and entrepreneurship)
Innovative achievements	Student academic output	Students' academic output (e.g., papers, patents, etc.)
	Student innovation competition won	Students' competition awards related to innovation and entrepreneurship
	Student project landing	The landing rate of student innovation and entrepreneurship projects

Innovation environment mainly refers to the evaluation of the support and input outside the school and the overall atmosphere of the place, which is composed of 7 secondary indexes. In 2013, the Ministry of Science and Technology issued *National Innovation Investigation Monitoring and Evaluation Index System (Draft for Comment)*, which includes various indicators concerning the innovation environment for national, regional, innovative city and high-tech zone evaluation systems. In conclusion, environmental assessment is essential (Department of Development Planning, Ministry of Science and Technology, 2013).

Innovation resources relate mainly to the evaluation of on-campus support and input. Some scholars advocated the implementation of the evaluation of the entrepreneurship education process in colleges (Huang Zhaoxin, & Huang Yangjie, 2019). Zhu and He (2020) also believed that the process-based quality evaluation reflected the trend of returning to the standard of education quality evaluation and avoided the excessive dependence on the result evaluation. Therefore, it is necessary to bring curriculum and other process elements into the evaluation system.

Effect of innovation and innovative achievements is the evaluation of educational results. In addition to the evaluation of educational results such as papers and projects, the improvement of students' ability is also an important evaluation index. Duval-Couetil (2013) proposed a focused tool to measure entrepreneurial self-efficacy, entrepreneurial intention and orientation, etc. Jia and Yao (2019) also took the improvement of students' ability as an important indicator for the evaluation of innovation and entrepreneurship education.

3.3 Questionnaire Design

This research carried out field research through a questionnaire, which was divided into two parts. The first part is basic information statistics, which is to understand the basic information of the respondents and to ensure that the participants in the questionnaire meet the premise of Shenzhen university students; The second part evaluates the importance and satisfaction of the index from four aspects: innovation environment, innovation resource, innovation effect and innovation achievement. The questionnaire used the Likert 5-point scale, and 1-5 points were assigned from very unimportant (very dissatisfied) to very important (very satisfied).

In order to ensure the smooth progress of the formal questionnaire survey, a preliminary survey was conducted at Jinan University Shenzhen Campus from September 15 to September 20, 2020. A total of 60 questionnaires were sent out and 58 were recovered with a recovery rate of 96.7%, including 58 valid questionnaires with an effective recovery rate of 100%. The reliability of each component was tested by using the reliability analysis of SPSS.24 software. Cronbach's α coefficient of the data collected in this questionnaire was 0.813, and the spherical Bartlett test reached the significance level (SIG =0.00).

If deletes the index "regional upstream enterprises", the α value of the innovation environment is 0.890, which is higher than 0.756 before, and the α value of the overall questionnaire is 0.852. Therefore, this index can be deleted and 19 evaluations obtained.

Finally, a new questionnaire was designed based on these 19 evaluation indicators and was officially distributed at Jinan University Shenzhen Campus from December 10, 2020 to December 20, 2020.

4. Questionnaire Recovery and Data Analysis

A total of 250 questionnaires were distributed and 242 were recovered, with a recovery rate of 96.8%. Of these questionnaires, 234 were valid, and the effective questionnaire recovery rate was 96.7%.

Among the respondents to the questionnaire survey, the demographic characteristics of the survey sample were obtained through simple descriptive statistical analysis. See Table 2.

Table 2. Demographic Characteristics of respondents (N = 234)

Population	Characteristics	Sample size	proportion（%）
Gender	Male	84	35.9
	Female	150	64.1
Grade	Freshman	24	10.3
	Sophomore	73	31.2
	Junior	88	37.6
	Senior	49	20.9

As can be seen from Table 2, among the 234 valid respondents in the questionnaire, 84 were male, accounting for 35.9%; The sample number of female respondents was 150, accounting for 64.1%. Since the ratio of male to female students in Jinan University Shenzhen Campus was roughly 2:1, the survey also showed a slight imbalance in the ratio of males to females, and the proportion of females was larger than that of males to a large extent.

4.1 Reliability Analysis

According to the reliability test results of SPSS, the reliability of the total table was tested for 19 evaluation index factors in the questionnaire. The original internal consistency α coefficient of the questionnaire data was 0.928, greater than 0.5, so the reliability of the collected data in the total item of the questionnaire was very reliable.

4.2 Validity Analysis

The validity of the questionnaire containing a five-level Likert scale was tested. The value of KMO was greater than 0.9, and the Sig value of the Bartlett spheroid test was also less than 0.05, reaching the significant level. Therefore, there was a strong correlation between variables, and the validity of the questionnaire passed the test.

4.3 Important-Performance Analysis

After the questionnaire data passed reliability analysis and validity analysis, SPSS.24 was used to analyze the data collected from the questionnaire, and the importance and performance of each index were obtained as shown in Table 3:

Table 3. Analysis of the importance and performance of the evaluation indexes of undergraduate innovation and entrepreneurship education with interdisciplinary arts and sciences majors

Primary Index	Secondary Index	Importance		Performance	
		Mean value	Standard deviation	Mean value	Standard deviation
Innovation Environment	X1 Financial support	4.427	0.780	4.350	0.780
	X2 Regional economic development	4.316	0.858	4.376	0.807
	X3 Policy support	4.504	0.805	4.376	0.763
	X4 Publicity	4.419	0.801	4.368	0.726
	X5 Innovation and entrepreneurship competition held	4.154	0.877	4.188	0.809
	X6 Training offered	4.205	0.905	4.197	0.833
Innovative Resources	X7 Innovative curriculum provision	4.205	0.815	4.120	0.892
	X8 Number of participants in the course	4.128	0.856	4.154	0.877
	X9 Course content	4.231	0.834	4.188	0.850
	X10 On-campus faculty	4.274	0.816	4.350	0.758
	X11 External faculty	4.205	0.836	4.128	0.856
	X12 Supporting laboratory	4.231	0.824	4.197	0.843
	X13 Innovation service platform	4.427	0.758	4.197	0.863
Effect of innovation	X14 Students' innovative thinking	4.462	0.749	4.359	0.760
	X15 Students' entrepreneurial ability	4.453	0.749	4.308	0.771
	X16 Student self-efficacy	4.462	0.760	4.368	0.772
Innovative achievements	X17 Student academic output	4.111	0.849	4.094	0.861
	X18 Student innovation competition won	4.086	0.857	4.068	0.858
	X19 Student project landing	4.274	0.816	4.239	0.868

To more clearly present the specific situation of the 19 evaluation indicators, according to the analysis principle of IPA, with the importance indicator as the horizontal axis and the performance indicator as the vertical axis, the materiality-performance analysis chart of the innovation and entrepreneurship evaluation indicators in this study was drawn.
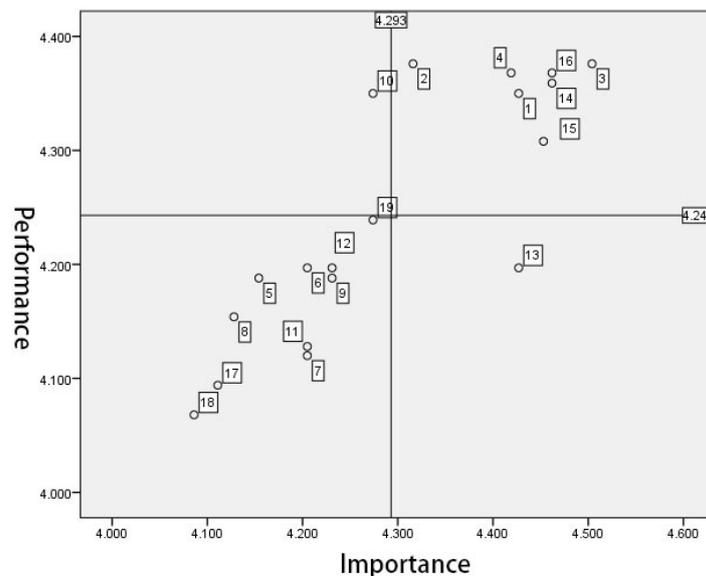

Figure 3. IPA analysis quadrant of undergraduate innovation and entrepreneurship education with interdisciplinary arts and sciences majors

As shown in Figure 3, the evaluation indicators positioned in the first quadrant and need to be continued are financial support, regional economic development, policy support, publicity, students 'innovation ability, students' entrepreneurial ability, and students' self-efficiency. Positioned in the second quadrant, the evaluation indicators which cannot be deliberately pursued and appropriate to follow the natural are on-campus faculty. Positioned in the third quadrant, it is recommended to include the "low priority" evaluation indicators, including innovation and entrepreneurship competition held, training offered, innovative curriculum provision, number of participants in the course, course content, on-campus faculty, external faculty, student academic output, student innovation competition won and student project landing. Positioned in the fourth quadrant, the evaluation indicator that needs to improve in the next step is for the school to provide an innovation service platform to meet the needs of innovation and entrepreneurship.

5. Results and Discussion

5.1 Analysis Results

5.1.1 The First Quadrant

The first quadrant is the area of high importance and high performance. There are 7 secondary indicators in this area, including 4 indicators in the innovation environment and 3 indicators in the innovation effect. This shows that students think that the environmental background of the location of the campus is very important for students to carry out innovation and entrepreneurship. Moreover, they recognize that Shenzhen, which is the national innovative city, the international innovation centre of science and technology industry, the most innovative city in Mainland China and one of the top ten innovative cities in China, has great advantages and positive influence on the development of innovation and entrepreneurship education. Students consider that the innovation effect is more important than innovation achievement, which shows that they pay more attention to the improvement of their own ability rather than a specific achievement, and they also get better growth in school.

5.1.2 The Second Quadrant

The second quadrant is the area with low importance and high performance, and the indicator located in this area is on-campus faculty. Therefore, students are satisfied with the number of teachers and theoretical level of innovation and entrepreneurship. In addition, they think teachers compared with other indicators are not very important, which also echoes the above information that students believe the improvement of their own ability is more important in innovation and entrepreneurship education.

5.1.3 The Third Quadrant

The third quadrant is the area of low importance and low performance. Located in this region is innovation and entrepreneurship competition held, training offered, innovative curriculum provision, number of participants in the course, course content, external faculty, supporting laboratory and three indicators of innovation results. Thus, students have the view that innovation and entrepreneurship competitions, training, and seminars in Shenzhen are not so important that their willingness to participate is not high. Besides, the importance and satisfaction with the relevant indicators of innovation and entrepreneurship education courses are relatively low. It may be that the courses offered by schools are few and of low quality, which in turn makes students doubt the need for the curriculum, thus reducing its importance in the hearts of students. Moreover, the lack of attention to and dissatisfaction with academic output, competition awards and project implementation reflect that students pay more attention to participation, rather than demanding whether there is a quantitative output in the end.

5.1.4 The Fourth Quadrant

The fourth quadrant is a high importance and low performance area, where only the innovation service platform is located. It indicates that there are still many deficiencies in the construction of service platforms, and students prefer to get help related to innovation and entrepreneurship through such comprehensive service platforms. Furthermore, they believe that external support such as funds, policies and relevant services are more important than the cultivation of internal qualities such as innovation knowledge and innovation training. This seems to contradict that students attach more importance to the improvement of their ability, but in fact, it shows that students are more inclined to improve their ability from practice, and they hope to get more perfect help and service in practice.

5.2 Discuss

5.2.1 Integrate into Shenzhen's Innovation Environment and Give Play to Regional Economic and Policy Advantages

From the perspective of students' attention to and satisfaction with the innovation environment, the school should actively integrate into Shenzhen's active innovation environment, give full play to Shenzhen's local economic and policy advantages, actively apply for relevant innovation and entrepreneurship projects, and attract educational resources of regional entrepreneurs. Besides, pay attention to the official websites and official accounts of Shenzhen Science and Technology Innovation Commission, Shenzhen Science and Technology Association, Nanshan Science and Technology Association, etc. In this way, the school can obtain information, competitions, training, discussion meetings and funding support plans about innovation and entrepreneurship, so that students can feel the atmosphere of innovation and entrepreneurship well. At the same time, cooperate actively with local governments and upstream enterprises to realize complementary advantages and resource sharing, introduce various financial support and policy support, and establish a standardized incentive system for innovation and entrepreneurship to provide a guarantee for students to carry out innovation and entrepreneurship practice, and promote students to carry out practice spontaneously.

5.2.2 Develop New Courses and Pay Attention to the Improvement of Students' Ability

Curriculum provision is the core of the innovation and entrepreneurship education system. In universities at home and abroad, curriculum provision is one of the key themes in the field of innovation and entrepreneurship education. However, in this survey, students believe it is of low importance, which is probably caused by the fact that the existing courses of schools are not enough to meet the needs of students. The university should actively develop new courses, draw lessons from the foreign existing mature system, and open more courses that combine theory and practice, and even courses with only guidance and practice to diversify the curriculum approach, such as participatory, interactive, inquiry, etc. The curriculum and incubation mechanism are combined to provide better incubation objects, and incubation and cultivation can be carried out more accurately. What's more, the design of curriculum should focus on cultivating students' innovative ability and comprehensive quality, and reflect interdisciplinary cooperation. It can make the ideas of the different discipline's perspectives collided with each other, and let the students achieve the real ability of ascension. Meanwhile, a flexible credit system can be used in curriculum provision, which supports the transformation of innovation course credits. It not only encourages students to participate in the innovation course but also enables them to devote more time and energy to the study of innovation and entrepreneurship, which is conducive to students' better practice of innovation and entrepreneurship.

5.2.3 Optimize Resource Allocation, Adjust Input, and Attach Importance to the Construction of the Innovation Service Platform

As an indicator of high importance and low performance, an innovative service platform should be a priority for the development of schools in the future. Therefore, the school can start by optimizing the allocation of educational resources, reduce the resource input of unimportant parts, and pay attention to the construction of the innovation service platform. Deeply understand the needs of students, clarify the internal management system, and determine responsible units or departments, so as to build a relatively perfect and comprehensive innovative service platform. On the one hand, starting from the hardware facilities of the innovation service platform, the school is supposed to provide the basic equipment and places required by students' innovation and entrepreneurship, such as the training bases inside and outside the campus and the mass innovation space. On the other hand, perfect rules and regulations, coordinating resources and innovative undertaking regularly to provide the students with high innovative entrepreneurial intention services related to innovation and entrepreneurship, including consulting, training, etc., so that students can obtain all-round, more targeted guidance and get diversified services that can connect with the resources inside and outside the school. In addition, the school can combine the above-mentioned integration into the Shenzhen innovation environment, set up information, discussion areas and other sections, to provide students with a good platform for communication and interaction.

6. Deficiencies and Prospects

The research of Innovation entrepreneurship education evaluation index is involved in many aspects and multiple points of view of the research question, although there was much good literature that can provide a theoretical reference in this field, in the extraction of evaluation index system by personal experience, professional ability and knowledge reserve and so on various restrictions, the extraction of indicators is still not so scientific. This study only extracts evaluation indicators based on relevant literature and the actual situation of Jinan University Shenzhen Campus, and whether it is generally applicable to interdisciplinary arts and sciences

colleges remains to be verified. At the same time, limited by the energy and funds, the scale of questionnaire distribution is not large, and the sample representativeness remains to be discussed. What's more, questionnaire samples are students, so the questionnaire data is based on the perspective of students, while students as the main body of innovation entrepreneurship education, its evaluation has important reference value. But it also means students' relatively narrow source of information will make the evaluation unobjective. But then it can also reflect some publicity and communication problems, thus the conclusions obtained by IPA analysis are of the certain reference value, but the interpretation needs a deeper understanding, and the statistical analysis of questionnaire data also needs to be further explored. Therefore, future research directions can start by optimizing the evaluation index system, expanding the sample size, strengthening the method of verifying the evaluation index, and improving the universality of the evaluation index of innovation and entrepreneurship education.

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