Research on the Integration of Innovation and Entrepreneurship Education with Professional Education from the Perspective of Three Dimensions: Focus, Traceability and Response

—Taking the Tourism Major of Huaqiao University as an Example

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Abstract: Colleges and universities have begun to consider how to integrate innovation and entrepreneurship education with professional education since our country and the Ministry of Education vigorously promoted innovation and entrepreneurship education. This paper takes college students as the research object, and selects 544 students from Huaqiao university's 2014-2017 tourism majors as a sample to explore the integration of innovation and entrepreneurship education and professional education from three dimensions: knowledge dissemination, environmental impact and practical cognition, and provides theoretical and practical suggestions respectively. The main value of this paper is that it is an effective guidance tool of practical application, which can provide a scientific basis for colleges and universities to strengthen the integration of innovation and entrepreneurship education and professional education, and thus improve the operability of relevant schemes.

1. Introduction

Innovation is the primary driving force for development. Under the background of "double innovation " (short for "mass entrepreneurship and innovation") vigorously promoted by the country and the Ministry of Education, strengthening innovation and entrepreneurship education and cultivating innovative talents have become the key factors for the implementation of innovative development in universities. In April 2012, the Ministry of Education clearly put forward in the "Several Opinions of the Ministry of Education on Improving the Quality of Higher Education" that "Ensure the innovation and entrepreneurship education runs through the whole process of talent cultivation", "Make the basic teaching requirements for the innovation and entrepreneurship education in universities, and develop innovative and entrepreneurial courses." "Support students to carry out innovation and entrepreneurship training" and other specific requirements. However, at present, the development of innovation and entrepreneurship education in China is relatively slow. There are still many problems exist in developing innovation and entrepreneurship education in higher education institution. For example, the overall faculty level is not high, and the relevant scientific research projects are extremely scarce. In particular, under the constraints of institutional mechanisms and ideological concepts, it is difficult for colleges and universities to integrate innovation and entrepreneurship education with professional education.

Under this situation, it is particularly important to pay attention to the development of innovation and entrepreneurship education and professional education in college education, to analyze the advantages and disadvantages of the education, so that to promote the development of "double innovation" education and professional education. To this end, based on the tourism discipline, and from the three-dimensions perspective: knowledge dissemination, environmental impact and practical cognition, we studied how to integrate innovation and entrepreneurship education with professional courses and practical teaching, and improve college students' professional quality and innovative practical ability.

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2. Literature Review

From the perspective of the research topic of the text, the research on innovation and entrepreneurship education and professional education constitute the basic literature of this paper.

Judging from the existing research, the research priorities of the integration of innovation and entrepreneurship education with professional education is mainly focused on macro-planning, subject participation and awareness training. In terms of macro-planning, Huang Zhaoxin and Wang Zhiqiang proposed to change the development strategy of entrepreneurship education, and to promote the reform of entrepreneurship education and encourage diversified development models [1]. Zeng Erlei and Huang Xinmin discussed how to integrate innovation and entrepreneurship education into professional education from a structural, functional, perceptual and long-term perspective [2]. Zhao Guojing and others stressed that to achieve this integration, it is necessary to reform the talent training model. Explore and enrich the entrepreneurial education resources of various professional courses through professional education and teaching reform, and promote entrepreneurship education in higher education institutions [3]. In terms of subject participation, Ma Yongbin and Bai Wei believed that they should build a eco-network model of“university-government-enterprise” innovation and entrepreneurship education, highlighting the mutual influence and interaction of each subject [4]. In terms of awareness training, Deng Qizhong and Zhou Zhiqiang emphasized the need to clarify the goal, ensure innovation and entrepreneurship education runs through the teaching process, in the meanwhile, updating concepts and cultivating students' awareness of innovation and entrepreneurship [5]. Liu Wei also believed that innovation and entrepreneurship education should focus on cultivating students' innovative spirit and entrepreneurial awareness, so that all students become the beneficiaries of this education [6].

In summary, it is not difficult to find that the current research on the integration of innovation and entrepreneurship education and professional education is becoming more and more in-depth, but it is mainly biased towards the exploration of macro-models, and the research on specific methods and implementation measures is scarce. At the same time, most of the existing researches focus on theoretical discussions, and there is not much explanation on how to combine theory with practice. Based on this, this paper explores the development of this integration from the perspectives of knowledge dissemination, environmental impact and practice cognition, and provides theoretical and practical suggestions respectively to provide reference for the improvement programs in this field.

3. Focus: Analysis of the Current Situation of the Integration of Innovation and Entrepreneurship Education with Professional Education

Academic education and vocational education are two areas that society and colleges have always attached importance to. However, in recent years, the role of innovation and entrepreneurship in development strategy, policy system and cultural education is becoming increasingly prominent, education for innovation and entrepreneurship has become the "third passport" after academic education and professional education. However, the development of innovation and entrepreneurship education in colleges and universities is slightly "small": on the one hand, innovation and entrepreneurship education lacks a systematic system, on the other hand, innovation and entrepreneurship education is separated from professional education, and the two cannot play a mutually reinforcing role. Faced with this situation, this paper takes the Tourism College of Huaqiao University as an example, and the relevant investigation and analysis were carried out by means of questionnaire survey.

The survey was conducted online and 544 copies were collected, all of them were valid questionnaires. Among the valid questionnaires, 110 are graduate questionnaires, accounting for 20.22%, and 434 are student questionnaires, accounting for 79.78%. Using Excel for preliminary analysis of the data, the structural distribution of the sample can be derived.

Table 1. The structure and distribution of the questionnaire samples

Category		Number of samples	Percentage	Total
Gender	Male	145	26.65%	544
	Female	399	73.35%	
Grade	2014	110	20.22%	544
	2015	122	22.43%	
	2016	154	28.31%	
	2017	158	29.04%	
Professional category	Tourism Management	149	27.39%	544
	Hospitality Management	176	32.35%	
	Human Geography and Planning of Urban and Rural	101	18.57%	
	Exhibition Economy and Management	118	21.69%	

For the questionnaire, we carried out the reliability and validity analysis. Through the SPSS data analysis software, the test results showed that the questionnaire had good reliability and validity, and the reliability and accuracy of the questionnaire were relatively high. Therefore, we further analyzed the questionnaire.

In general, students from the Tourism College of Huaqiao University have a high degree of satisfaction with the education work of innovation and entrepreneurship and its integration with education. Nearly 85% of the students maintain a relatively positive attitude towards the relevant work carried out by the school. As can be seen from Table 2, as for the school's innovation and entrepreneurship education, 42.46% of the students have a clear approval and satisfactory attitude, 42.46% hold a neutral attitude, and 15.08% of them have significant dissatisfied attitude, showing that the innovation and entrepreneurship education carried out by the school still has a lot of room for improvement, and there can be improvements in the educational mechanism, educational methods and educational content. As can be seen from Table 3, for the present situation of the innovation of entrepreneurship education with professional education , 40.44% of the students have a clear approval and satisfactory attitude, 43.57% of the students are neutral, and 15.99% of the students still have significant dissatisfaction. It shown that in the integration of innovative entrepreneurship education with professional education, a lot of work can be done to improve actual performance.

Table 2. Satisfaction Statistics of the Educational Work of Innovation and Entrepreneurship

	Frequency	Percentage
Totally Consent	55	10.11%
Comparative Consent	176	32.35%
Neutral	231	42.46%
Disagree	70	12.87%
Strongly Disagree	12	2.21%
Total	544	100.00%

Table 3. Satisfaction Statistics of the Integration of the Entrepreneurial Education with Professional Education

	Frequency	Percentage
Totally Consent	57	10.48%
Comparative Consent	163	29.96%
Neutral	237	43.57%
Disagree	73	13.42%
Strongly Disagree	14	2.57%
Total	544	100.00%

Specifically, from the three-dimensional perspective, we classified the questions of the questionnaire into three categories: knowledge dissemination, environmental impact, and practical cognition, and separately counted the frequency and frequency of the data under each category.

3.1 Knowledge Dissemination

Knowledge dissemination mainly involves the integration of theory and curriculum. The survey includes the types of innovation and entrepreneurship courses, the degree of integration with professional knowledge and its assistance to the improvement of entrepreneurial ability. As can be seen from table 4 and table 5, students are less satisfied with the curriculum setting and teaching content of innovation and entrepreneurship education carried out by the school, among them, only 36.77% of the students are relatively satisfied with the curriculum setting, 39.34% are relatively satisfied with the teaching content, and the rest of the data shows general and unsatisfied attitude. This shows that the school may not be reasonable in this regard. The reasons may be that the innovation and entrepreneurship courses are of a single type, the teaching content can't keep pace with the times, the innovation and entrepreneurship courses are not able to integrate well with the professional courses, or they may be the students themselves. There is insufficient understanding of innovation and entrepreneurship courses, and the degree of attention is not high enough. Therefore, it is necessary for the school to make scientific and reasonable adjustments to the relevant curriculum, and at the same time, it should also strengthen the guidance of students, and specific suggestions will be given later.

Table 4. Satisfaction Statistics of Course Setting for Innovation and Entrepreneurship

	Frequency	Percentage
Totally Consent	51	9.38%
Comparative Consent	149	27.39%
Neutral	237	43.57%
Disagree	89	16.36%
Strongly Disagree	18	3.31%
Total	544	100.01%

Table 5. Satisfaction Statistics of Teaching Contents for Innovation and Entrepreneurship

	Frequency	Percentage
Totally Consent	58	10.66%
Comparative Consent	156	28.68%
Neutral	241	44.3%
Disagree	74	13.6%
Strongly Disagree	15	2.76%
Total	544	100%

3.2 Environmental Impact

The environmental impact mainly refers to the integration of students and teacher programs. The content of this paper mainly discussed whether students' innovation and entrepreneurship ability, scientific research ability, professional knowledge and application ability have been correspondingly improved and enhanced in the entrepreneurial programs undertaken by the teachers.

According to Tables 6 and 7, "consent" and "strongly agree" to the idea that "participate in entrepreneurial projects with teachers can help to enhance innovation and entrepreneurship ability" and "participate in entrepreneurial projects with teachers can help improve professional knowledge and application ability". The number of people accounted for 60.11% and 60.84% respectively,

more than half, and only about 10% of students did not agree with this view, explaining that Integrate students into teacher programs is conducive to the promotion of students' comprehensive development. Most students can get training from participating in the teacher project, gain rich professional knowledge and improve practical skills.

Table 6. Participating in Entrepreneurial Projects Helps to Improve the Capacity for Innovation and Entrepreneurship

	Frequency	Percentage
Totally Consent	90	16.54%
Comparative Consent	237	43.57%
Neutral	157	28.86%
Disagree	47	8.64%
Strongly Disagree	13	2.39%
Total	544	100.00%

Table 7. Participating in Entrepreneurial Projects Helps to Improve the Recognition of Professional Knowledge and Enhance Application Ability

	Frequency	Percentage
Totally Consent	79	14.52%
Comparative Consent	252	46.32%
Neutral	154	28.31%
Disagree	46	8.46%
Strongly Disagree	13	2.39%
Total	544	100.00%

3.3 Practical Cognition

Practice cognition refers to practical activities. This questionnaire investigates students from many aspects, such as practical skills competition, innovation and entrepreneurship practice activities and campus innovation and entrepreneurship bases, to explore students' gains and related satisfaction of students from practical activities.

Table 8. Effect Statistics of Participating in Innovative and Entrepreneurial Activities

	Frequency	Percentage
Have gained the knowlege about innovation and entrepreneurship and also improved related ability	243	44.67%
Have gained the knowledge about innovation and entrepreneurship but not improved the related ability	268	49.26%
No gain at all	52	9.56%
Have not participated in entrepreneurial practice	130	23.90%
Total	544	

According to Table 8, 76.1% of the students in this survey participated in various innovation and entrepreneurship practice activities, of which 49.26% of the students thought that “Have gained the knowlege about innovation and entrepreneurship and also improved related ability”, 44.67% of the

students thought “Have gained the knowledge about innovation and entrepreneurship but not improved the relevant ability”, we can see that most people agree to learn relevant knowledge through practical activities, and at the same time increase the relevant knowledge. It indicates that to some extent, the innovation and entrepreneurship practice carried out by the school has a good education effect. However, it is noted that 44.67% of the students believed that the innovation and entrepreneurship practice activities have not actually brought about the improvement of ability. The reasons may be that the various practices carried out by the school are not comprehensive enough, and that makes the experience of participants not so good. It may also because a relatively small number of students have problems in the transformation of knowledge and abilities. Only nearly half of the students can transform their ability through practice and improve their ability in practice. This is also the aspect that needs to be explored and improved.

4. Traceability: the Reasons

In view of the status quo proposed above, we can boil down to the following three dimensions: knowledge dissemination, environmental impact, and practical cognition.

The dimension of knowledge dissemination is mainly about the theory and its integration with curriculum. After years of exploration, the theory of innovation and entrepreneurship education has passed the initial period both at the school setting level and at the student cognitive level. However, with the continuous improvement of the curriculum requirements, the “post-strength” of innovation and entrepreneurship education is slightly insufficient, and the supply of courses cannot keep up with the needs of the times, which has caused a certain gap. At the same time, there is a bias in theoretical cognition. Merely regarded innovation and entrepreneurship education as a means to alleviate employment pressure, and didn’t really understand the significance of innovation and entrepreneurship education. It implements innovation and entrepreneurship education without integrating with professional education. The two are in a relatively independent field, and do not create a good atmosphere for innovation and entrepreneurship fundamentally, which further lead to a disconnect between theory and curriculum.

The environmental impact dimension involves the integration of teachers and projects. As a direct student-oriented teacher and project, it has a profound impact on students, but in the course of the survey, we learned that most of the teachers equipped with innovation and entrepreneurship education didn’t have relevant entrepreneurial knowledge and entrepreneurial background and experience. Therefore, innovation and entrepreneurship education lacks professionalism, and professional teachers ignore innovation and entrepreneurship education. The lack of two aspects has caused the two kinds of education to be unable to integrate and promote each other. At the same time, the project is limited, the number of projects with instructors and sufficient funds is small, and the teacher's enthusiasm is not high, the platform that the college can provide to students will be further reduced.

The practice cognitive dimension is mainly the fusion of practice and experience. Most of the courses in innovation and entrepreneurship education adopt the mode of classroom teaching and knowledge lectures. This model can only satisfy the acquisition of theoretical knowledge at the book level, and more other aspects of knowledge cannot be provided. The teaching in the form of “paper talks” does not have much promotion for the innovation and entrepreneurship that requires practical education. The output of a single innovative and entrepreneurial knowledge, without the blessing of professional knowledge and practice, the entrepreneurial practice experience is also doomed to have no good teaching effect.

5. Response: Suggestions on Strengthening the Integration of Innovation and Entrepreneurship Education and Professional Education from a Three-Dimensional Perspective

5.1 Integration of Theory and Curriculum

5.1.1 Awareness Raising

Under the macro environment in which the Party Central Committee and the government attach great importance to innovation and entrepreneurship education, many colleges and universities still have lagging concept. Merely regarded innovation and entrepreneurship as means to reduce employment pressure, and the idea of innovation and entrepreneurship wasn't truly integrated into talent cultivation. The reason for the domestic college students' low entrepreneurial rate is largely the students' low recognition of entrepreneurship and the high risk of it. Therefore, it is essential to create a good culture on campus, so that students can be immersed in the atmosphere of innovation and entrepreneurship, and stimulate their entrepreneurial enthusiasm[7]. The awareness-raising should run through curriculum education and campus culture. School should consciously guide students in professional education, giving full play to the advantages of campus radio stations, school journals, campus official account of Wechat, Weibo and other propaganda media to truly carry out innovation and entrepreneurship. Realize the propaganda of innovation and entrepreneurship, and subtly cultivate students' awareness of it.

5.1.2 Popularization of Knowledge

In the process of impart knowledge of innovation and entrepreneurship, the previous direct impart can be transformed into curriculum research, which can guide students to change from passive attitude to active attitude, and then they try to change and challenge, so as to give full play to the dominant position of students in class.

Construct a curriculum system that integrates with innovation and entrepreneurship, and set up reasonable compulsory courses and elective courses to complement the knowledge of professional as well as innovation and entrepreneurship. The school sets elective courses according to the frontier dynamics of the profession. Elective courses can offer laws, marketing, e-commerce, and enterprises management_and other courses that allow students to master the skills related to innovation and entrepreneurship, and students can choose courses according to their own actualities, so as to improve their innovation and entrepreneurship ability.

5.1.3 Experience and Practice

Paying attention to the diverse needs of students in the curriculum, maximally satisfying their needs, and creating a superior conditions for students to learn theoretical knowledge and apply it. In addition to offering a reasonable curriculum systems, it is also necessary to strengthen the construction of non-curriculum systems, such as the establishment of entrepreneurship forums and business plan competitions [8]. Give full play to the role of "the second class", make full use of the students' spare time, provide a carrier for students to cultivate innovative spirit after class, improve their overall quality, and interact with "the first class", such as internships on-campus and off-campus. Innovative and entrepreneurial related events, college students' innovation and entrepreneurship training programs, etc. Thus forming a hierarchical teaching system.

5.2 Integration of Teachers and Projects

5.2.1 Composition of Teachers

The shortage of high-quality teachers has become a bottleneck restricting the rapid development of entrepreneurship education [9]. The teachers required for innovation and entrepreneurship education not only need to have correct beliefs, professional knowledge and rich teaching experience, but also pursue teachers' rich entrepreneurial experience, rich entrepreneurial knowledge and extensive entrepreneurial social resources. It is necessary to play the dual role of teachers in schools and corporate teachers in enterprises. The teachers in schools are divided into

professional teachers and entrepreneurial teachers. The professional teachers are to impart professional theoretical knowledge and expand the professional field, and the knowledge are not limited to the profession itself. Entrepreneurial teachers actively guide students to start a business, improve their enthusiasm, and give students entrepreneurial guidance more systematically in the course. Enterprise teachers are enterprise managers, and enterprise teachers use their own practical experience to guide students. Create a faculty team of “professional teachers + entrepreneurial teachers + enterprise teachers”.

5.2.2 Equipment of Teacher

In terms of the equipment of entrepreneurship education teachers, all colleges and universities in China are facing huge demand gaps [10]. Therefore, every innovation and entrepreneurship project needs to be equipped with relevant teachers. It is emphasized that professional teachers should be equipped according to the characteristics as well as the specialty of the project, and appropriate teachers should be equipped according to the particularity of the project. That will allow students to have professional guidance in the project.

5.2.3 Teacher-Student Docking Platform

Actively establish a platform for teachers and students to connect, give full play to the guiding role of teachers for students, so that students will not lack guidance in the process of the project, and teachers will help students when they encounter difficulties, so that students have a stable “street light”, this is to fully connect teachers and students

5.2.4 Implementation Platform

Establish a project implementation platform and let students have a way to display through school-enterprise cooperation. The establishment of the implementation platform should focus on the role of the students, and the teachers play a supporting role, and then carry out project construction on this platform. In the implementation of the project, we must pay attention to the fairness of interests, respect the interests of all subjects, and implement the principles of no exaggeration, no partiality, no neglect, and no discrimination.

5.3 Integration of Practice and Experience

5.3.1 Practical Conditions

The practical characteristics of innovation and entrepreneurship education determine that it must extend the service platform of entrepreneurial practice, and help educators to hone their will and accumulate experience through necessary practice links [11]. First of all, improve the support policies for college students to start their own businesses, provide a superior environment for them, and encourage more students to try their own businesses. Entrepreneurship policies should be designed around the following three elements: inspiring students to start a business at the individual level, enabling entrepreneurs to acquire the knowledge and skills needed to start a business, and providing resources and environmental support to potential entrepreneurs [12]. Therefore, providing students with all kinds of guarantees, such as financial support, equipment, venues and time, can effectively promote the implementation of various practical activities and innovative activities. Secondly, establish a reward system for innovation and entrepreneurship, such as providing entrepreneurial bonuses, mutual recognition of credits, promotion of graduate students, and evaluation of awards. Under the dual effect of guarantee and reward, students' initiative and experience of innovation and entrepreneurship will be improved.

5.3.2 Practice System

Practical experience should strive to form a system of "talent training + quality improvement + social contribution". Bring the advantages of social resources and alumni resources into play. In terms of social resources, we should actively explore the talent training mode of school-enterprise contact, transfer talents to enterprises in the form of practice, expand the area of negotiation between schools and enterprises, and strengthen the cooperation between schools and enterprises. In

terms of alumni resources, we should learn from the successful experience of outstanding alumni. Seek excellent alumni's help and suggestions for innovative practice, give play to the objective role of excellent alumni, and cultivate innovative and entrepreneurial talents.

In addition, resources, guarantees and policies are utilized to hold various innovative and entrepreneurial competitions and establish various research centers, so that students can experience the role of it and help their own development in practice, and at the same time, more people can be motivated to understand the significance of innovation and entrepreneurship. Students' achievements in innovation and entrepreneurship will ultimately be fed back to the society. Students should actively respond to various social needs, carry out the idea of innovation and entrepreneurship according to the needs of society, and focus on the practical application of the achievements.

6. Summary

The development of innovation and entrepreneurship education has progressed with the times, but the integration of innovative and entrepreneurial education ideas into the professional teaching system is still a long way to go. Establishing innovative talents with professional qualities is the requirement of colleges and universities today. How to establish an effective system to fully integrate innovation and entrepreneurship education with professional education is the difficulty we need to overcome now. At present , the three dimensions of knowledge dissemination, environmental impact and practical cognition provided by this paper run through the talent training system and focus on guiding students to develop into professional and innovative talents.

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