

# Discussion on the cultivation mode of college students' innovation and entrepreneurship

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**ABSTRACT.** *Aiming at the problems in talent training in our school, combining the reality of the school, the team of high-quality personnel training mode reform and innovation, around the students' practical ability training and professional characteristic has carried on the many years of exploration and practice, to build the foundation to strengthen professional practice and innovation ability as the goal, which is based on professional teaching system, based on teaching practice base platform, in the reform of teaching management mechanism as the guarantee, 'teaching fusion, integration, project driven, cooperative education' education professional personnel training mode, make the teachers, the teaching effect is significantly improved, the talent training quality has been rising steadily.*

**KEYWORDS:** *Integration of industry and education, project-driven, collaborative education, innovation and entrepreneurship*

## 1. Introduction

With the promotion of the national strategy of 'mass entrepreneurship and innovation', entrepreneurship education for college students has been paid much attention to and achieved certain results in the training of innovative and entrepreneurial talents. However, the following problems remain to be solved:

(1) In the process of classroom teaching, the 'cramming' teaching mode of passive learning is adopted by teachers and students, and students' interest in learning is not high.

(2) Lack of systematic and comprehensive learning. Knowledge points are scattered and can't be comprehensively applied.

(3) The practice base is unstable, low quantity and poor quality, and the system is not perfect. As a result, students' internship time is short and they are less hands-on. They lack a complete understanding of post responsibilities and industrial chain, etc., and they have poor practical ability and problem-solving ability.

(4) Students' interest in innovation and entrepreneurship, innovation inspiration and creative realization lack of carrier. As a result, students' interest in innovation

and entrepreneurship is not high, and their awareness and ability of innovation and entrepreneurship are not strong.

(5) Teachers in the university lack practical experience in industry and entrepreneurship. The construction of the faculty attaches great importance to the requirements of academic qualifications, academic titles, scientific research level and classroom theoretical teaching level, which cannot effectively guide students to innovate and start businesses.

To solve above problems, based on the characteristics of applied undergraduate education, the practice of strengthening the professional standard, supported by professional practice base, on the basis of teachers in classroom teaching, to letter simulation laboratory of surveying and mapping, aerial remote sensing remote sensing measurement laboratory as the carrier, adhere to 'teach fusion, production integration, project driven, cooperative education' training mode, on the basis of the students master the theoretical knowledge, enhance their practical operation ability and the ability of the integrated use of knowledge. After years of exploration and practice, a series of achievements with great significance and practical value have been achieved.

## **2. Main contents**

### **2.1 General idea**

Applied talents oriented, in line with 'teach integration, production integration, project driven, cooperative education' the general idea, pay attention to students' basic professional quality and ability to ascend, attaches great importance to the employment as the guidance of the student application ability raise, to find their own advantages and characteristics of talent training, lay a foundation for students' future career choice.

(1) Full coverage of students' practical ability and innovation and entrepreneurship ability,

(2) Construct the whole chain of innovation and entrepreneurship practice education of 'discovering problems - inspiring inspiration - improving ability - realizing creativity',

(3) The professional enterprises outside the university cooperate to participate in the whole process of 'development of training objectives - implementation of teaching process - evaluation of teaching quality'.

### **2.2 Main measures**

(1) Building a high-level teaching team for innovation and entrepreneurship education

Through a variety of ways to train teachers, so that they become 'double teacher' teachers, both on the classroom, and do projects. Such as registered cartographer, AOPA, MOOC, course information construction, course evaluation, professional laboratory construction, etc., to improve the teaching level of teachers.

(2)The construction of high-quality practice base system as the carrier of practical ability training

Actively contact external practice teaching bases, establish high-quality and long-term stable practice bases with industry enterprises and institutions, form a system for 'the whole industry chain', and jointly formulate training objectives, implement the training process, and evaluate the training quality.

(3)Construct the innovation and entrepreneurship ability cultivation carrier of 'interest cultivation-inspiration stimulation -ability promotion- creativity realization'.

We specially started professional competition courses, led students to participate in various kinds of college students' innovation and entrepreneurship planning competitions, professional mapping competitions, GIS development competitions, 'Internet +' competitions, etc., formed student competition teams, cultivated innovative thinking, inspired innovation, and improved teamwork ability.

### **3. Achievement characteristics and innovation**

#### ***3.1 Training of teachers for high-level innovation and entrepreneurship education***

Double teacher training: registered cartographer, civil UAV pilot license of AOPA, civil aviation of China

#### ***3.2 Teaching and competition integration***

Courses in professional competition, in order to 'teach' convergence as the teaching idea and method, combining with the related courses, with all kinds of professional title game content and the calendar year for instance, in the teaching process into the game project, requires teachers to master the game content specific operation implementation method, help to improve related classroom teachers teaching quality.

Students through the actual match the actual project operation, familiar with the game requirement, to master the game content and the methods to solve the problem, improve the students use professional skills to solve the problem of comprehensive ability, can participate in the actual game, game also achieved gratifying results, student many times national and provincial awards, field.

#### ***3.3 The integrated production and education***

Cooperate with related enterprises and units, establish professional practice teaching base, regularly send relevant students, deepen students' grasp of theoretical knowledge, improve students' practical skills. The integrated production and education.

### ***3.4Project driven***

The theoretical course and the practical course are integrated into one, realizing the complete integration of the theoretical course and the practical course. Through the cooperation with relevant professional enterprises and institutions, students have a deeper understanding of the whole process of project planning and project implementation on the one hand, and improve their practical ability on the other hand, laying a good foundation for faster and better integration into related project operation after graduation.

### ***3.5Cooperative education***

According to the needs of today's industry, we have a full discussion with enterprises and institutions outside the university and practical teaching base, and make a reasonable training program and syllabus to cultivate high-quality graduates suitable for the needs of the unit.

## **4.Results promotion and application effect**

Through several years of practice and exploration, the results have achieved good results of promotion and application.

### ***4.1Double teacher training, teachers to improve***

The teaching team won the second prize of national university GIS teaching achievement, two educational reform projects, One textbook, two papers, Instruct students to publish one paper.

Through various training, learning and projects, many teachers have become double-qualified teachers, which has enhanced the teaching staff of their major. For example, the registered surveyor qualification and civil UAV pilot license of AOPA, civil aviation of China.

Through various projects, many teachers have gained valuable experience in practical projects and applied it to daily teaching, so as to let students participate in the implementation of the project and drive teaching with projects, which has achieved good results.

### ***4.2Competition to promote teaching, students comprehensive practice ability to improve***

Set up professional competition courses, promote teaching by competition, guide students to win five national competition awards, Provincial competition awards, prizes in school-level competitions, Project approval: one project of national college students' innovation and entrepreneurship training program, Many graduation thesis

design won the excellent graduation thesis. Through a series of competitions, students' comprehensive practical ability has been improved.

#### ***4.3 Establish an off-campus practice base where students participate in practical projects***

Joint training with a number of off-campus enterprises to form a relatively stable off-campus practice base, regularly and irregularly send students to practice off-campus. Through the actual project of the unit, students on the one hand have a deeper understanding of the whole process of project planning and project implementation, and on the other hand have improved their practical ability, laying a good foundation for faster and better integration into the operation of related projects after graduation. 500 students benefited from internship and employment.

#### **5. Conclusion**

Based on the characteristics of applied undergraduate education, the practice of strengthening the professional standard, supported by professional practice base, on the basis of teachers in classroom teaching, around the students' practical ability training and professional characteristic has carried on the many years of exploration and practice, to build the foundation to strengthen professional practice and innovation ability as the goal, which is based on professional teaching system, based on teaching practice base platform, in the reform of teaching management mechanism as the guarantee, the implementation of 'teaching fusion, integration, project driven, cooperative education' education professional personnel training mode, make the teachers, the teaching effect is significantly improved, The quality of talent training has been steadily improved.

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