

# **The Trinity Teaching Mode of "Mass Entrepreneurship and Innovation" Practice in Application-oriented Universities from the Perspective of Craftsman's spirit**

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**Abstract.** With the proposal of the "Manufacturing Power" strategy, the construction of China's talent training system has become more specific. As a bridge between "Vocational Education" and "Academic Education", Application-oriented universities bear the historical responsibility of training applied talents in China. The organic combination of the value system with craftsman spirit as the core and the reform and construction of "Mass entrepreneurship and Innovation" education is an important way to break the "glass door" of applied talents training. Therefore, from the perspective of craftsman's spirit, this paper analyzes the current situation of domestic "Mass Entrepreneurship and Innovation" practice teaching. Combined with the teaching experience of "mass entrepreneurship and innovation" in recent years and the theory of "Integrity of Teaching, Learning and Practice", it makes an in-depth study and builds a trinity teaching mode of "Mass entrepreneurship and Innovation" practice in the perspective of craftsman spirit. It has been proved that this mode solves some bottleneck problems in the "Mass entrepreneurship and Innovation" teaching of Application-oriented universities, helps students to improve their professional quality and morality, forms innovative consciousness and thinking, and strengthens entrepreneurship and skills. It will be of great guiding significance to the construction of China's structured talent system.

**Keywords:** Craftsman Spirit; Application-Oriented Universities; Entrepreneurship and Innovation Education; Teaching Model

## **1. Introduction**

Under the background of "Mass entrepreneurship and Innovation", compared with the traditional undergraduate talents, the cultivation of applied undergraduate talents will pay more attention to their innovative practical ability and professional ethics in the professional field, which also puts forward higher requirements on the teaching mode of application-oriented universities. The craftsman spirit was put forward before the concept of "Mass entrepreneurship and Innovation", and its high advanced nature can play a stronger spiritual leading role in teaching. Therefore, only by correctly understanding the value connotation of craftsmanship spirit and constantly exploring the strong coupling points that can be integrated in the practical work of "Mass entrepreneurship and Innovation"

teaching, can it be applied to practical teaching more scientifically and reasonably. Only in this way can we make more adaptive innovation in teaching activities, continuously promote the application-oriented undergraduate talents to greatly improve their professional literacy, professional ethics, innovative consciousness, innovative thinking, entrepreneurial ability and entrepreneurial experience, and cultivate more "Great Country Craftsmen"

## **2. Craftsman Spirit is the Guidance of Practice Teaching of "Mass Entrepreneurship and Innovation"**

In 2016, the craftsmanship spirit was first put forward in Premier Li Keqiang's government work report, which clearly defined the spiritual connotation needed in the historical process of China's transformation from "made in China" to "quality in China" and "created in China", and "Chinese products" to "Chinese brands". Craftsmanship is the professional focus, technological innovation ability, ultimate pursuit of quality, rigorous and pragmatic attitude, and perseverance in the profession that workers have long condensed and materialized in the fierce market competition, especially in the manufacturing market. This spirit of craftsmanship has created innovators and pioneers in various fields of the current era, and has enabled enterprises progress, country flourish and national rejuvenation. This craftsmanship has created innovators and pioneers in various fields of the current era, thereby enabling enterprise progress, country flourish and national rejuvenation.

In 2015, Premier Li Keqiang put forward the concept of "Entrepreneurship by the masses, entrepreneurship by the masses" in the government report for the first time in 2015, allowing citizens to deeply understand the practical value and spiritual pursuit of innovation and entrepreneurship, that is, the realization of self-value should be paid more attention to in the process of enjoying wealth creation. In May 2016, the "Implementation Opinions on Building a Demonstration Base for Mass Entrepreneurship and Innovation" issued by the General Office of the State Council clearly stated that in order to realize the advantages in industry, economy and scientific research, we must fully explore human and technical resources and make use of " "Advantageous resources" to achieve "Advantage transformation". It also emphasizes the construction of a support system for undergraduate entrepreneurship and a support service system for entrepreneurship and innovation in education and teaching. This shows that in the " innovation and entrepreneurship " teaching, in addition to basic teaching, teaching practice must also be used as a carrier, and strong driving force must be continuously given, so as to continuously promote the transformation of students' entrepreneurial awareness and innovative thinking into innovation and entrepreneurship abilities<sup>[1]</sup>. The "National Vocational Education Reform Implementation Plan" issued by the State Council in 2019 stated: "Vocational education should establish a sound school setting, lead the development of vocational education services, and promote employment and entrepreneurship. We should implement the fundamental task of cultivating people with morality, improve the education mechanism of combining morality with technology and work with learning, and standardize the whole process of talent cultivation. " It can be seen that the craftsmanship spirit not only stays at the level of personal morality and enterprise spirit, but also needs to be emphasized in the education, teaching and talent training of the next generation. As a bridge between "Vocational Education" and "Academic Education", the fundamental mission of application-oriented universities should be to cultivate a group of applied undergraduate talents with craftsmanship spirit. There are inherent factors why people pay persevering actions for their goals. From the point of view of harvest, it is because people continuously obtain subjective benefits through practice. From the point of view of thinking, it is because there is a strong spiritual motivation to make practice sustainable. While continuous practice creates wealth for mankind, it also realizes the continuous accumulation and deepening of spiritual connotation and value pursuit. The positive energy gene of craftsmanship spirit of excellence, self-improvement, rigor and pragmatism is the strong support of the practical teaching of "Mass Entrepreneurship and Innovation". The two have some emphasis, but they cross each other and are a unity of mutual support<sup>[2]</sup>.

### **3. Analysis of the Status Quo of "Mass Entrepreneurship and Innovation" Teaching in Applied-Oriented Universities**

Traditional colleges and universities are based on the engineering education model and pay attention to the cultivation of students in professional theory and knowledge system construction, so that a group of sustainable development talents with relatively broad knowledge and strong comprehensive quality can be employed in a more flexible way. This training model is not very specific. In the current rapid economic development in my country, it is urgent to integrate research breakthroughs with engineering practice, and cultivate a large number of innovative compound talents with engineering practice capabilities for high-tech industries and service industries. According to the mission of the times, application-oriented universities will focus on cultivating talents with innovative ability, professional quality and strong post adaptability, which are different from traditional universities in terms of training objectives, training specifications and training approaches. Both training methods are in line with the current multi-disciplinary and multi-level talent training needs. The talents cultivated by the traditional undergraduates are to meet the needs of the future, and the talents cultivated by the applied undergraduates are to meet the needs of the present. We must take into account the needs of the present and the future<sup>[3]</sup>.

Application-oriented colleges and universities need to integrate with the background of the times, local characteristics and job requirements in establishing a talent training system. Since the Internet plus action plan was proposed by Premier Li Keqiang, the national universities have attached more importance to the "Entrepreneurship and Innovation" education. Although the penetration of theory and practice has already achieved some success in some universities, it still has gaps with engineering education and occupation technology education in developed countries such as the United States, Germany and Switzerland. In the concept of "educational needs" proposed by Dewey, the educational planning of the discipline must be reliable and practical, but the focus is still on learners. Therefore, the premise of the practical education of "mass entrepreneurship and innovation" is still closely related to the satisfaction and needs of students. Judging from the practical activities carried out by other applied colleges and universities in recent years, there are still some problems:

#### ***3.1. The Unclear Goal of Practical Teaching Results in the Overlapping of Training Links with Traditional Universities***

The practice teaching goal of traditional universities emphasizes more objective verification of the existing and proved conclusions, while the application-oriented universities should emphasize continuous thinking, cognition and summary in practice on the premise of mastering certain subject skills. However, in the actual development of the "Mass entrepreneurship and Innovation" teaching work in some applied-oriented universities, they are accustomed to formulating teaching goals based on traditional universities practice teaching ideas, but they use applied-oriented universities teaching methods in specific implementation, which will cause some contradictions and problems in actual work, Such as: the focus of curriculum planning, the direction of students' ability training, and the evaluation of teachers' teaching and research results. This ultimately leads to the inability to cultivate applied undergraduate talents that meet the needs of society. Therefore, the "Mass entrepreneurship and Innovation" teaching activities in application-oriented universities should be carried out specifically around the characteristics of universities.

#### ***3.2. The Formalization of Practice Teaching Leads to the Slow Development of Students' Ability***

The practical teaching links are mainly carried out in the form of teaching courses, practical projects, practice bases, maker spaces, incubators and entrepreneurial competitions. From the overall implementation point of view, the teaching content of various universities is similar, and the level of class hours is not uniform, resulting in insufficient integration with the market. In addition, universities directly use some foreign high-level university teaching models to carry out their work, and the effect is not good. In the course of practice, many students just passively do some unimportant

tasks, not only did not raise the awareness of "Mass entrepreneurship and innovation", but would treat future teaching activities with a perfunctory attitude and develop the habit of avoiding difficulties<sup>[4]</sup>. Therefore, the implementation of "Mass entrepreneurship and Innovation" education must have a unique practice carrier. The process work not only wastes time, but also delays the speed of students' ability training.

### *3.3. The Difference of Practical Teaching Conditions Leads to the Lack of Incentive for the "Mass Entrepreneurship and Innovation" Team*

To promote the high-quality development of "Mass entrepreneurship and Innovation" teaching, a sound teaching guarantee mechanism is needed. Due to the different nature of disciplines, some application-oriented universities have serious differences in the allocation of "Entrepreneurship and Innovation" funds, which can not provide opportunities for students who really want to engage in innovation and entrepreneurship projects to participate in practical content, especially the free-organized maker team. In addition, the school did not pay enough attention to it, lacked support in terms of venues and funds, and did not have corresponding guidance from famous teachers. Under such circumstances, the confidence and enthusiasm of these members were gradually frustrated and the project had to be stopped.

### *3.4. The Lagging Concept of Practical Teaching Management Leads to Negative Effects*

Some applied undergraduate colleges and universities have not paid much attention to the teaching management of "Mass entrepreneurship and Innovation", which has caused students to be affected by some traditional ideas, that is, innovation and entrepreneurship education is a forced choice made by failing to find a suitable job in the society. There is a certain degree of fear and discrimination in innovation and entrepreneurship. Some teachers do not have a deep understanding of the "Entrepreneurship and Innovation" education. They only stay at the level of entrepreneurship policy interpretation, unable to convey its essence spirit and concept in place, resulting in the establishment of discipline innovation projects and entrepreneurship competitions can not attract students to actively participate in. For a long time, there has been a negative accumulation between teachers and students for "innovation and entrepreneurship" teaching, which is not conducive to the development of specific practice. Therefore, in order for "innovation and entrepreneurship" education to achieve greater results, there must be a certain innovative change in management concepts and models, otherwise, teachers and students will not be able to obtain the greatest support and promotion on the basic platform of universities.

### *3.5. The Imbalance of Social Participation in Practical Teaching Activities Leads to Insufficient Innovation and Entrepreneurship Ability of Students*

The "Mass entrepreneurship and Innovation" project requires more social forces to participate in sustainable development. Since the work was carried out, many governments have given strong support through innovation and entrepreneurship competition, preferential policies for entrepreneurship and talent incentive mechanism, but the supervision of some third-party service agencies relying on is not strict. Driven by interests, some high-quality projects are still lack of insight, leading to the failure of incentive measures. Many application-oriented universities have strengthened cooperation with domestic and foreign enterprises and established a series of cooperation platforms to create practical opportunities for students. However, due to the limitation of work experience and ability, students' internship opportunities, cycles and training are not paid attention to, which makes their enthusiasm and enthusiasm for work practice decline. Therefore, the practice teaching of "Mass entrepreneurship and Innovation" requires more attention and participation of social forces, so as to

ensure that students have more and more extensive scenarios for selective practice, so as to improve the ability of innovation and entrepreneurship.

#### **4. Trinity Practice Teaching Mode of "Mass Entrepreneurship and Innovation"**

Tao Xingzhi, a famous educator in my country, mentioned in his theory of "Integrity of Teaching, Learning and Practice": centering on doing things, judging how to learn and teach based on how to do things. The main body of teaching is the teacher, and the main body of learning is the student, but both are built on the basis of doing. The three aspects of teaching, learning, and doing are a trinity relationship rather than a separate process<sup>[5]</sup>. This highlights the important role of practice in education. Only practice can organically combine the three to achieve true applied education. People's social learning process is the result of the interaction of behavior, cognition and environment<sup>[6]</sup>. Only in the real work scene can students continuously and deeply understand the craftsman spirit, better learn professional skills, improve professional quality, activate innovative thinking, explore their own potential and strengthen entrepreneurial ability. Combined with the practical teaching experience of "Innovation and entrepreneurship" in Application-oriented Universities in recent years, on the basis of in-depth research and Practice on the theory of "Integrity of Teaching, Learning and Practice", the Trinity "Entrepreneurship and Innovation" practice teaching mode in Applied-oriented universities under the perspective of craftsmanship spirit is constructed (as shown in Figure 1). This mode has been put into trial use in the college of urban transportation and logistics of Shenzhen Technology University from 2019 to 2020, and has achieved fruitful results.

##### *4.1. Teaching: Comprehensive Practical Guidance under the "Professor Responsibility System"*

Transportation engineering is one of the key construction disciplines of Shenzhen Technology University, and its discipline development is closely related to management, information engineering, communication technology and computer science. This discipline aims to cultivate high-quality compound talents and specialized application-oriented talents suitable for engineering design, technology development, maintenance control, organization management, and innovative applications in the field of transportation. In teaching, we should pay attention to comprehensive practical theoretical guidance.

Professor responsibility system means that undergraduate students will follow the designated professor to learn advanced technology and carry out relevant practice in the laboratory as soon as they enter the University. The primary goal of students entering school is to learn skills, and "what to learn" is the primary problem for teachers to carry out teaching work. Therefore, it is necessary to accurately position market positions in curriculum setting, and attach great importance to vocational education guidance work in basic theory, experimental teaching, online communication and offline counseling, so as to inspire and enhance students' employment awareness. In addition, teachers also need to do career case analysis on the recruitment information of large enterprises and companies, so that students can make plans and choices in advance driven by personal interest and market demand, continuously obtain subjective benefits in the process of continuous learning and practice, and better consolidate their basic technical skills.

##### *(1) Synchronous setting and arrangement of teaching courses*

Transportation engineering and mathematics, management science and computer science have a strong overlap. Unreasonable arrangements will lead to asynchronous professional knowledge and skills, and some source problems will occur in practice, which will affect professional practice. For example, in the chapter of network path planning in the course of transportation planning, many of its methods involve not only the problem of strategy selection, but the underlying theoretical basis mostly comes from knowledge of linear algebra, advanced mathematics, and data structures. Without these basic supplements, it is impossible to deeply understand the nature of such courses. Therefore, it is necessary to keep the progress of the basic course study and the professional course study

synchronized, the basic course knowledge can be used as the theoretical supplement of the professional course, and the application practice in the professional course becomes the theoretical proof of the basic course. Arrange multi-angle and enlightening comprehensive curriculum tasks, so that students can focus more on the choice of problem-solving methods instead of staying at the level of understanding the problem.

#### (2) Summary of practical and exploratory results

In addition to the normal course theory teaching, there are phased course design or course practice in the teaching. In the evaluation, 50% of the technical methods are the content of the course, 20% are related to other courses, and 30% are innovative exploration within the group. In the class, 3~8 people are team members to complete the work. Covering content includes rail transit operation organization and planning, rail detection and safety technology, rail transportation artificial intelligence technology and application, and rail transportation information detection and processing. At the end of the semester, students report to the professor in charge in the form of PPT, focusing on the design, technological innovation, and engineering value of each content. The professor gives guidance and evaluation based on the student's report, and conducts acceptance and evaluation based on its "Practical report/Thesis + Physical hardware/Software" as a phased result.

#### (3) Offline interactive seminars for teachers and students

The form of teaching in class and homework arrangement after class can not promote the subject education with the attribute of "Mass entrepreneurship and Innovation". Transportation Engineering belongs to this category. The offline thematic seminars are organized in groups of 8 to 10 students in each class, taking turns on a weekly basis, and conducting interactive seminars in the seminar room of the library. This small-scale, close meeting is to reduce the communication cost between teachers and students, enhance the sense of ownership, and create a good atmosphere for discussion. Teachers and students can carry out collaborative exploration through intelligent interactive whiteboard. On the whiteboard, teachers and students can quickly access the special teaching resource library without chalk or mouse. With rich multimedia tools, students' vision and hearing can be fully mobilized to make them have a more visual understanding of the issues and views discussed. The discussion is based on the "point" problems that students don't understand deeply, can't understand and handle improperly, and communication at the "line" and "plane" levels, so as to abstract the essence of the problem in the concrete cases and solve it.

### 4.2. Learning: Setting up Scene Platform for Skill Training and Quality Training

#### (1) Setting up a scene-based subject practice platform in the school

The scene-based subject platform in the school can be divided into two categories. The first category is soft support, that is, the subject-based and thematic dual-foundation projects established within the school, such as the special project for innovation and entrepreneurship development, the special project for science and technology entrepreneurship parks, and the special "Climbing Plan" for scientific and technological innovation cultivation. Its themes cover transportation, computer services, information systems, etc. The establishment of the project provides funds and site support for outstanding projects of integration of science and innovation, integration of specialization, spontaneous creation, family inheritance, social practice, and integration of industry and innovation, to explore project potential and accelerate the incubation. The second category is hard support, that is, setting up practical scenes in relevant industries in the school. Shenzhen Technology University has constructed a 1:1 subway tunnel simulation site. Its internal and external structure is consistent with tunnel scene of Shenzhen Metro. At the same time, the restoration of the track equipment is more realistic. There are many diseases, including track surface irregularity, track wear (side and vertical wear), clamping and fasteners falling off, etc. In the scene, students can visit freely to understand its structure mechanism, working environment and facilities and equipment, and explore the industry's pain points in track inspection and safety maintenance. On this basis, students can independently initiate innovation and entrepreneurship projects and conduct product testing in this scenario.

(2) School-enterprise builds a platform for industry-university-research cooperation practice

The core of industry university research platform strategy is to build an active response mechanism between schools and enterprises. On the one hand, the school can understand the market mechanism of enterprise industry through the platform, and carry out certain educational reform and discipline innovation in the direction of product-oriented achievements. On the other hand, enterprises can carry out brand promotion in the humanistic background of universities and establish a suitable potential talent reserve mechanism in university to achieve a win-win situation for university and enterprises. The college of Urban Transportation and Logistics has established an important cooperative relationship with Shenzhen Metro. Students majoring in transportation can periodically follow the front-line employees for internships and participate in the real work of track inspection, operation and maintenance and management. Practice can enhance students' job understanding and practical ability, cultivate professional ethics and professionalism, and guide them to strengthen their innovation and entrepreneurship capabilities in accordance with their own development needs or expertise in the established model.

*4.3. Doing: Practice Guided by Innovation and Entrepreneurship Competition*

(1) The guidance of innovation and entrepreneurship skills training: competition

The best guide for innovation and entrepreneurship skills training is the various innovation and entrepreneurship competitions held every year. Before the competition, there will be a special person to preach, introducing in detail the theme of the competition, the orientation of the judging and the rules of the competition. In addition, they will share their experience in innovation and entrepreneurship, analyze the topic selection and development of award-winning projects in previous years, and communicate with teachers and students around the construction of knowledge reserves in innovative projects. These are the valuable experience and direction of innovation and entrepreneurship skills training.

(2) An important part of innovation and entrepreneurship skills training: case-based teaching

The premise of case-based teaching is that the teachers in the school have relevant professional knowledge and entrepreneurial spirit, and the teaching quality and level of the teachers must meet the needs of the development of entrepreneurial education. Stanford University in the United States is one of the most successful institutions for entrepreneurship education. The main methods include hiring people with successful entrepreneurial experience to be student entrepreneurship education mentors, encouraging teachers to engage in entrepreneurial activities during their tenure, and teachers first experience entrepreneurial activities held on campus. Case-based teaching with experience derived from teachers can arouse sufficient attention from students and enhance a sense of substitution and participation. The case teaching in the school of urban transportation and logistics of Shenzhen University of technology is guided by innovation and entrepreneurship competition. All professors will actively prepare for and participate in the propaganda and training of innovation and entrepreneurship in the University before the competition, carry out the project of "mass entrepreneurship and innovation" based on the discipline characteristics and the theme of the event, and organize 2-3 student innovation teams according to the content. Each team selects the topic from the project to carry out the specific work. During the competition, the professor is responsible for evaluation and guidance, and the students independently carry out the deployment of related innovation and entrepreneurship activities, including market demand surveys, feasibility studies, formulation of implementation plans, clear division of labor, implementation of planned actions, etc. In the end, project products with innovation, competitiveness and influence will be used to show value in the innovation and entrepreneurship competition.

(3) The main body of innovation and entrepreneurship skills training: team

Adopt the team organization form of teacher-student co-creation to manage projects, participate in innovation and entrepreneurship competitions, and follow five principles: goal segmentation, skill complementarity, clear division, dynamic opening, and strict management.

a. The principle of goal segmentation

Only when team members understand the goals and values of their struggles can they achieve better motivation. Therefore, individual goals and overall project goals need to be divided reasonably. Considering the particularity of the student team, the project cycle is generally not too long. The long-term target time frame is within 6 months, focusing on the realization of the overall strategy and goals of the product; the medium-term target time frame is 1 month, focusing on the realization of key product functions; the short-term target time frame is 7 days, focusing on the achievement of milestone tasks. After the target of each time limit is reached, the team will evaluate the work progress, technical points, phased achievements and other aspects, constantly revise and improve the objectives, and evaluate the overall implementation efficiency of the project, so as to accelerate the progress of the project.

b. The principle of complementary skills

From the perspective of project realization, team member skills should be kept low coupling. Complementary skills can achieve complementary advantages among members, and the orderly collaboration of individual concentration and expertise can promote the overall strength of the team. In addition, considering that some students have not yet formed a sense of development in the early stages of schooling, and their skill development is not accurately positioned, they should be self-observed during the trial period after the team is formed. We help them to find development position of skill through the character, and let him experience and improve in practice.

c. The principle of clear division of labor

The functions and powers of the members of the innovation and entrepreneurship team should be divided according to the realization of the overall goal, so as to avoid the problem of responsibility division. In particular, the members of the start-up team are all students, and there is a big gap between the experience, management and personnel structure of large-scale enterprises, resulting in some members being both decision-makers and executors in the division of labor. But in fact, from the overall point of view, the work assigned to each member is still independent. On the one hand, there are essential differences in the way of thinking, technical methods and implementation strategies from other tasks; on the other hand, there are differences in the amount of tasks, discourse rights and responsibilities undertaken by members.

d. The principle of dynamic openness

In essence, innovation and entrepreneurship carry a certain degree of uncertainty, which causes some team members to opt out due to various reasons in the process. Once this happens, the person in charge must first strengthen communication with members, avoid the spread of negative emotions and behaviors within the team, and be alert to management and system problems that exist in the work, and resolve them in a timely manner. Secondly, the person in charge should also pay attention to the addition of newcomers and make structural adjustments to stabilize the team. On the whole, the team has a certain degree of dynamics and openness, is continuously injected with vitality, and gradually forms an innovative and entrepreneurial team with excellent capabilities and quality.

e. The principle of strict management

The foundation of team management is to formulate a series of institutional measures with constraints and incentives under the principle of fairness, including discipline, organization, rewards and punishments, finance, and confidentiality. A strict team management system has two functions. First, it can play a protective role to prevent members from making behaviors that are not conducive to team development and maintain order and stability. On the other hand, it can play a role in promoting, making work efficient and orderly, allowing each member to find the direction of self-worth in the team and work hard for it, and then promote the realization of the team's common goal.



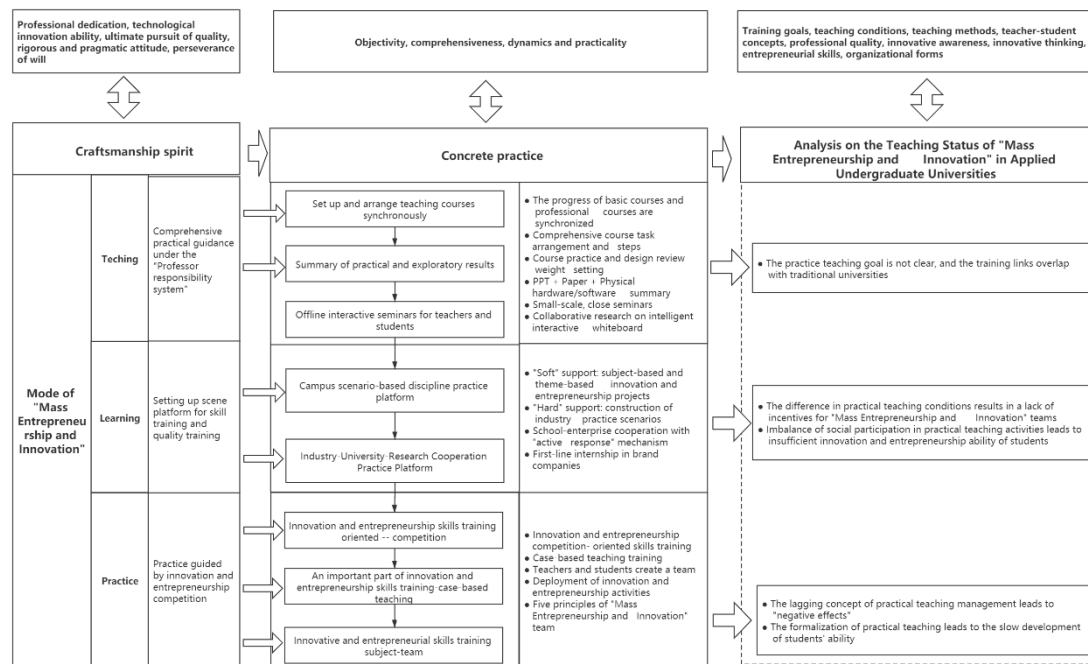


Figure 1. Mode of "Mass Entrepreneurship and Innovation"

## 5. Effect and Conclusion of the Trinity Teaching Mode of "Mass Entrepreneurship and Innovation" Practice

The Trinity "entrepreneurship and innovation" practice teaching mode was tried out in the college of urban transportation and logistics from Shenzhen Technology University from 2019 to 2020, with fruitful results. Three representative teams were the most outstanding, namely RaiLinNova (8 people), FingerPower (28 people) and Unique Craftsman Core team (13 people).

The RaiLinNova team has repeatedly achieved good results in the domestic innovation and entrepreneurship competitions from 2018 to 2019. The most important event is to win the champion of "Microsoft Image Cup" in China at 2018. The FingerPower team won the third prize in the 2019 Shenzhen Technology University of "Challenge Cup" school competition. In the same year, it won the second prize in the 15th National Transportation Technology Competition. In 2020, it won the gold medal in the National University Entrepreneurship Competition. The Unique Craftsman Core team won the third prize of the 2019 Shenzhen Technology University of "Challenge Cup" school competition, and won the special prize in the competition of the special project of university students' innovation and development research in the same year. Its work was also exhibited at the 21st China International High-tech Fair in 2019. Behind the achievements of the three teams is the concrete practice under the guidance of craftsman spirit and the Trinity "Innovation and entrepreneurship" practice teaching mode. This enables members to obtain greater improvements in professionalism, practical skills, innovative thinking and entrepreneurial abilities, resulting in the overall strength of the team being widely recognized.

This article first demonstrates the strong coupling between the connotation of craftsman's spiritual value and practice, and analyzes the status quo of some application-oriented universities in the "Entrepreneurship and Innovation" teaching work in recent years. Based on the theory of "Integrity of Teaching, Learning and Practice", this paper innovatively puts forward the Trinity "Innovation and Entrepreneurship" practice teaching mode in Applied-oriented universities from the perspective of craftsman spirit, and specifically expounds the practice teaching methods and practices. In teaching, teachers should pay attention to teaching, course practice and communication; in learning,

students should pay attention to the practice of students on the basis of scene platform and industry-university-research platform. More emphasis should be put on the practice of teacher-student cooperation, that is, to create team organization under the guidance of innovation and entrepreneurship competition. In essence, "Teaching, Learning and Doing" is still the specific practice with the connotation of craftsman's spiritual value as the core. Therefore, only when the three support each other can the practical teaching effect of "Mass entrepreneurship and Innovation" be realized. To some extent, this mode solves some bottleneck problems in the teaching of "Entrepreneurship and Innovation" in application-oriented universities. It can help students improve their professional quality and morality, form innovative consciousness and thinking, and strengthen entrepreneurship and skills. It has important guiding significance for the construction of structured talent system in China. However, the "Mass entrepreneurship and Innovation" education is a long-term, complex and diverse project, so the follow-up research of the mode will continue to improve on the basis of the teaching practice effect and the principles of objectivity, comprehensiveness, dynamics and practicality.

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