

Insights from Participation in Innovation and Entrepreneurship Competition and Its Guidance to the Career of Higher Vocational Students

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Abstract: Through the experience of leading a team to participate in the “Internet +” Innovation and Entrepreneurship Competition, we summarize our experience and feelings. There are rules and methods to be followed when participating in dual-venture competitions, and teamwork and teachers’ guidance are the two wings; “learning breadth and doing depth” is the path. Innovation and entrepreneurship activities play an important role in improving students’ employability and career quality.

Keywords: Internet+; Innovation and Entrepreneurship Education; Innovation and Entrepreneurship Competition; Career

1. The history of guiding innovation and entrepreneurship competition

In recent years, innovation and entrepreneurship education and competitions have been carried out in full swing, providing many display platforms for students who are eager to be innovative and entrepreneurial. In recent years, the author has guided several bicultural teams to carry out innovation and entrepreneurship practices and competitions. The important competitions and achievements participated in are:

(1) In 2020, I guided students to participate in the 12th “Challenge Cup” Guangdong University Student Entrepreneurship Competition, and the work “Inheritance and Innovation, let “Canton Clock” go home” won the provincial bronze award;

(2) In 2022, we will guide students to participate in the 13th “Challenge Cup” Guangdong Student Entrepreneurship Competition, and the work “Canton Clock clangs, craftsmen echo” won the provincial gold medal;

(3) In 2022, we instructed students to participate in the 8th China International “Internet +” Innovation and Entrepreneurship Competition, and the project “Crest-grooved elastic loose-proof bolt” was awarded the Gold Prize in the National Competition.

The craftsmanship of Canton clock is an intangible cultural heritage of Guangzhou. The Canton Clock Intangible Cultural Heritage Project mainly revolves around the design of commercial solutions for the replication of Canton Clock cultural relics, the manufacturing of Canton Clock cultural and creative products, and the training of Canton Clock production skills.

Crest-grooved elastic loose-proof bolt focus on the basic technology in the field of machinery and equipment, the face of the basic field of short boards and problems, to play creative thinking, highlighting the effectiveness, the formation of commercial programs, the achievement of the National Gold Medal, boost students’ entrepreneurship, and from the basic industry to shape the model of a great nation of craftsmen.

2. “Internet +” Innovation and Entrepreneurship Competition Preparation Course

The idea of anti-loosening thread and its market pain point existed in the team of instructors for a long time, and the teachers kept explaining and inspiring, which harvested the student team for this competition.

The manufacturing process and business model of the product have gradually become clear and mature through countless days and nights of repeated improvements, tests, inspections and practical trials. Finally, the product has embarked on the road of preliminary industrialization and formed a more mature product. With the advantages of the project’s technological innovation, and the national development strategy, the business plan won the Eighth “Internet +” Competition National Competition Gold Medal.

3. Core Requirements for Participating in Double Innovation Competition

Each project of the Innovation and Entrepreneurship Competition is a brand new attempt, with only reference and no template, not to mention the repetitive labor of examining proficiency. This requires that the team must have some requirements.

3.1 United team

Selection of the team is the primary link, relying solely on students to organize their own inefficiency, loose structure, often intentionally, difficult to achieve great things. In the selection of the team must be instructor-based, students voluntarily join the team, the principle of instructor screening. The recruitment was initiated by the host, and as many as 30 students signed up for the competition. After the teacher's interview, only 5 students were left behind. After a period of honing, according to the team members' respective strengths and the needs of team development, 4 members were added to share the tasks of PPT production and actual processing.

Under the leadership of the person in charge, team members have to obey the task division of labor and play their creative roles in different positions. All members exert their own subjective initiative and contribute to the development of the program with a sense of ownership. The instructor must pay close attention to the actual performance of the team members, timely supervision, discover the problems of the team, intervene when necessary, and make adjustments.

3.2 Serious and responsible instructors

Although the instructor is not a member of the entrepreneurial team, but the team's soul, counselor, adviser. The team's large and small matters need to be coordinated by the instructor up and down, pointing out the direction, some times on behalf of the decision. Instructors also need to play their own advantages, for the team to seek help from schools, enterprises, industries and experts.

3.3 Reasonable management mechanism

The spontaneous participation of the innovation and entrepreneurship team and the herding style training are inefficient, difficult to improve results, and difficult to guarantee quality. The organizational management, plan supervision, and basic support of entrepreneurship colleges and professional colleges are crucial. Good organizational management, early selection of potential projects and teams, and targeted support; Strict planning supervision enables the project team to continuously refine and improve; Provide sufficient basic support in terms of venue, logistics, policies, funding, and other aspects to alleviate the team's worries. Especially organizing simulation exercises of all sizes is very important, constantly exercising the team, discovering and solving problems, and improving in a spiral manner.

3.4 Down-to-earth persistence

Excellent ideas may burst out in an instant, and excellent projects often require unremitting efforts. An excellent idea is the seed of a big tree. To sprout and grow, the seed must undergo various trials and tribulations. Continuously absorb nutrients, enrich and improve; Resist violent storms and grow up in various tests and tests; In the face of sunshine and praise, maintain a clear self-awareness, be down-to-earth and accumulate knowledge. A successful business plan cannot do without the support of practice, and a purely imaginative solution is bound to be riddled with loopholes.

4. The technical level of preparation for the main points: learning breadth, do depth

Mount Everest is only as high as its base is broad. Depth is the goal and breadth is the foundation. Breadth can make people integrated, broad thinking, not closed; depth can make people "know why". Doing the project requires members to know everything, is the breadth; specific tasks require employees to do a fine job, is the depth. The breadth of thinking refers to be good at comprehensively looking at the problem; the depth of thinking refers to be able to see the internal cause of things, seize the key to the problem, the core, that is, the essence of things. A person's value and potential, often not their own decision, but the external scene and opportunity to discover, from this point of view, breadth is more important than depth. Therefore, in the case of time and energy allows, extensive learning, life opportunities come to more into opportunities. Take the example of Anguo's threading project to talk about the importance of breadth and depth in the "Internet +" innovation and entrepreneurship competition.

As a mechanical product innovation and entrepreneurship, the breadth of knowledge is particularly important. Mathematics, physics,

chemistry, materials, mechanics, tolerance, technical measurements, manufacturing processes, computers, management, finance, taxation, sales, related knowledge is very large. All mastery is certainly not realistic, but must know, understand, need to use when then in-depth study. Nowadays, the Internet knowledge is as vast as the sea, there are bases and clues can be queried.

Threads are one of the most important simple machines invented by mankind and have been around for hundreds of years. It has been developed to a point where it is now very well established and the various thread standards are quite complete. The development of new threaded products should not ignore the existing standards. It is important to develop products by referring to the relevant standards according to the conditions of use of your products. Therefore, familiarizing yourself with the various standards for threads is the first task. Threads are mainly used in various bolts, which are typical mechanical products. Therefore, mechanical design, mechanical manufacturing process, bolt manufacturing equipment, bolt materials, anti-loosening bolt application of specific areas need to be widely involved. To produce bolts, mechanical manufacturing process and materials must be in-depth and detailed research in order to innovate and create.

5. Important role in students' career

Students' personal account: "This participation experience has brought us a lot of growth. At the beginning, we didn't know anything, we didn't know how to do anything, and we only had some ideas. Now we can efficiently collect information, make PPT, know how to organize language to impress the judges, know how to enterprise operation, know how to develop the market, know how to manage the company, know the importance of finance, know how to deal with tax issues, know the teamwork, we gained too much."

The student teams participating in the competition are all excellent students, but they still have a limited understanding of their professional knowledge. The scope of professional knowledge is too narrow, and specific technical research is not in-depth. At the beginning, the team students only knew about threads, but they were completely unaware of the type, shape, processing method, testing method, strength grade, material grade, standard, and so on. During the research process of the project, they gradually delved deeper and improved after exploration. In the later stages of preparation, they became an "expert" in the field of threading.

The Innovation and Entrepreneurship Competition gives students a platform to show themselves, gives them the opportunity to practice their ambitions, broadens their horizons, discovers the depth of their lives, and raises the starting point of their careers. It injects important genes into the students' future careers.

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