

Exploration on the integration of new development concepts and innovation and entrepreneurship education in local universities

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Abstract: Innovation and entrepreneurship education has been explored in colleges and universities for many years, with the new development concept proposed, the mutual relationship between the two has also appeared different depth of understanding, this paper summarizes the new development concept and the concept of innovation and entrepreneurship education in local colleges and universities, based on the analysis of innovation and entrepreneurship education facing the dilemma, by exploring the integration of the two ways, It puts forward the connotation of the “curriculum group”, “department-department”, “university-college”, “university-enterprise” and “university-university” collaborative education mode in the implementation of innovation and entrepreneurship in colleges and universities to show the connotation of the new development concept, guide the implementation of innovation and entrepreneurship education in local colleges and universities in a scientific way, and provide reference implementation methods.

Key words: New development concept; Innovation and entrepreneurship education in universities; Fusion exploration

I. The Era Background and Connotation of innovation and entrepreneurship education

Innovation and entrepreneurship, also known as mass entrepreneurship and innovation, is a powerful driving force for social development, a strong support for expanding employment, an important driving force for economic development, the biggest innovation in income distribution model, and an effective way to promote social justice. Innovation and entrepreneurship education in universities refers to innovation and entrepreneurship training programs for college students. Firstly□according to the project group, the project will be managed in stages and nurtured. Secondly, cultivating students’ innovative quality and entrepreneurial ability in the process is an important topic for college personnel training, including the cultivation of initiative, risk-taking, entrepreneurial ability, independent work ability, and technical, social and management skills. The verification of the achievements of Innovation and entrepreneurship education in universities is mostly reflected through innovation and entrepreneurship competition, which specifically refers to “innovation and entrepreneurship competition”. Mass innovation and entrepreneurship competitions are held regularly every year, specifically referring to “Internet+”, “Challenge Cup” and “triple innovation Competition”.

II. The dilemma of innovation and entrepreneurship education in universities under the background of new development concepts

The Ministry of Education pointed out in the Opinions on Vigorously Promoting Innovation and Entrepreneurship Education in colleges and Universities and college students’ Self-employment: “To carry out innovation and entrepreneurship education in colleges and universities and actively encourage college students to start their own businesses is a major strategic measure for the education system to deepen people’s learning and practice the scientific outlook on development and serve the construction of an innovative country; It is an important way to deepen the teaching reform of higher education and cultivate students’ innovative spirit and practical ability; It is an important measure to implement entrepreneurship to drive employment and promote the full employment of college graduates.”

The implementation of innovation and entrepreneurship education in colleges and universities can guide some graduates to start their own businesses, provide job opportunities, and achieve the effect of promoting talent through innovation. The initiative and innovative spirit of graduates who have undergone innovation and entrepreneurship education are higher than those who have not received innovation and entrepreneurship education, which lays a foundation for their success in employment and good development in their positions. From a long-term perspective, students who have received innovation and entrepreneurship education have already planted the seeds of entrepreneurship in their hearts due to the baptism of entrepreneurship spirit. Even if they do not start a business immediately after graduation, if they meet the right opportunity of entrepreneurship after several years of employment, the seeds of entrepreneurship will grow up, which will enable some students to start their own business through employment. However, under the development concept of innovation, coordination, green, open and sharing, the innovation and entrepreneurship education in colleges and universities is faced with various difficulties.

Dilemma 1: There is insufficient impetus for mass entrepreneurship and innovation. At present, most of the mentors take the students to participate in the innovation and entrepreneurship competition with the scientific research results of the mentors. For the students participating in the competition, they may not really participate in the scientific research project, nor may they have the real innovation and entrepreneurship ability. Due to their lack of innovation ability, they only join the fun. College students’ entrepreneurship is mainly concentrated in education, retail, catering and other industries with low technology content, and there are few entrepreneurial projects that can be landed. They may not be able to get much exercise through entrepreneurial projects, resulting in a lack of impetus for future innovation.

Dilemma 2: The instructor lacks entrepreneurial experience. In the whole process of innovation and entrepreneurship in colleges and

universities, college teachers play an extremely important role. Teachers need to choose appropriate topics for students, guide students to carry out innovation and entrepreneurship projects, and transform the results into packaging and promotion. However, most of the instructors are front-line teachers in teaching and research, and they lack experience in entrepreneurship. Therefore, teachers' experience in innovation and entrepreneurship is particularly important.

Dilemma 3: Lack of reciprocal sharing of innovation experience. At present, various innovation and entrepreneurship competitions are held every year, but to some extent, only a few universities can win awards. The number of awards that each university can win is limited, and the level of awards may not be high. Most of the participating innovation and entrepreneurship projects fail to make the cut due to lack of experience.

Dilemma 4: College education has a strong independence, around the university training system, college students' innovation and entrepreneurship education is a body of its own, divorced from the actual requirements of regional economic and social development, so college students' innovation and entrepreneurship projects are relatively low related to regional industrial development, the overall quality of the project is difficult to guarantee, and the actual effect of promoting regional economic development is limited.

III. The new development concept and local universities innovation and entrepreneurship education integration measures to solve the current dilemma

Innovation and entrepreneurship education in universities should strengthen professional integration, cross-professional advantages, school execution, production-education integration and multi-school sharing mechanism from the aspects of curriculum content, curriculum system and training plan, so that innovation and entrepreneurship education will run through the whole process of undergraduate education and form a good educational ecological chain. Truly realize a new educational model based on internal coordination and integration of curriculum education cycle, supplemented by internal and external double cycles of mutual communication. Open as a means to achieve multi-directional education platform linkage to enhance the new impetus of innovation and entrepreneurship education.

1. The concept of "Innovative development" :the curriculum group collaborates to enhance the impetus of innovation and entrepreneurship

Course group collaboration is a mechanism for collaborative training of innovative and entrepreneurial talents by constructing relevant courses in related majors. Taking automation major as an example, courses such as artificial intelligence, big data and 6G communication technology are introduced. Only by cross-merging courses in the talent training system can make students to form a close knowledge network and to achieve coherence of knowledge within the major. To enable students to have a systematic concept of the knowledge system, the extension of relevant professional knowledge, and the connection and difference of knowledge from a global perspective, it is easier to collision the seeds of innovation in the direction of the major, which is conducive to the cultivation of innovation and entrepreneurship ability. In the 2018 edition of our school's training program, in addition to offering special courses of the major for students of other majors in the general elective courses, we have set up large optoelectronics course group courses in the professional elective courses, which are offered by all engineering majors in the whole school, respectively for students of the major and students of related majors. Through such elective courses, students of different majors can, according to their own needs, The completion of elective courses increases the probability of cross-fusion of professional knowledge and supplements the impetus of innovation and integration. In the 2022 version of the training plan, special courses will be added to the elective courses of majors, and the special courses will be related courses in cross-majors.

2. The concept of "coordinated development" :college-department cooperation to enhance the impetus of innovation and entrepreneurship

College-department collaboration is to build a mechanism for collaborative training of innovative and entrepreneurial talents among colleges, departments and majors. Each major has its own professional advantages and each major has a different direction of innovation. Innovation and entrepreneurship education should be carried out according to the differences of departments and majors, and its own advantages should be refined in combination with the latest industry needs. The College of Electronic and Information Engineering of our University has five subordinate majors, which are electronic and information engineering, electronic and information science and technology, communication engineering, automation and electrical engineering and automation. The five majors are based on electricity, respectively belonging to electronic information categories and electrical categories, which are connected and intersecting with each other. When establishing training programs, considering the professional characteristics of each specialty courses, mutual integration, different professional students cross teams, participate in discipline competitions, participate in the teacher's scientific research projects, complement each other's professional advantages, learn from each other and promote each other to enhance the continuous innovation power. In addition, it will mobilize teachers of different majors, strengthen the communication and cooperation between teachers of related majors in the School of Economics and Management and teachers of science and engineering majors, and promote the implementation guarantee of the whole chain in the process of innovation and entrepreneurship.

3. The concept of "green development" : University-college cooperation to enhance the impetus of innovation and entrepreneurship

University-college collaboration is to establish a mechanism for collaborative training of innovative and entrepreneurial talents between universities and colleges, focusing on strengthening the supporting funds and venues between universities and colleges. As a second-level management unit of the university, the college has stronger executive power to carry out innovation and entrepreneurship education. First of all, the school has a directional policy of overall planning in the training system, which can be implemented in each training module through

top-level design of the training system, from the training program, teaching system, teaching syllabus, the combination of theory and practice, and the coordination of the first class and the second class to enhance the impetus of innovation and entrepreneurship education. The proportion of class hours in practice is not less than 30% of the total class hours, and the second class is set up to enrich students' extracurricular practical activities. Secondly, the school needs supporting funds and venues to carry out various activities in innovation and entrepreneurship education for students, so the college needs to apply for funds and venues from the university, and the university should be able to give more support under the overall development of the college.

4. The concept of “open development” : university -enterprise cooperation to enhance the impetus of innovation and entrepreneurship

University -enterprise cooperation is to construct a mechanism for the collaborative training of innovative and entrepreneurial talents between universities and enterprises, and strengthen the collaborative cooperation between universities and enterprises, as the main body of innovation, in talent training. Take automation as an example, especially the cooperation with high-tech enterprises such as artificial intelligence, robotics and 6G, which can complement and promote the advantages of both sides, and universities can get financial support from enterprises and convenience in technology transfer and application of scientific research achievements. While enterprises can share knowledge innovation, talent advantages and laboratory research results and other resources to promote their own continuous innovation and development through cooperation with universities. Employ enterprise tutors to give lectures, provide the needs of enterprises to schools, teachers and students, encourage teachers to connect the transformation of scientific research and technology with the needs of enterprises, open students' horizons, combine theoretical knowledge with engineering applications, and stimulate students' motivation for innovation. According to the requirements of engineering education certification, the student-centered curriculum reform is carried out through the Ministry of Education Cooperation Project, Jilin Province Cooperation Project and other teaching reform projects, and the innovation of teaching content, teaching methods and implementation measures is carried out to improve students' innovation ability; Carry out teacher training, improve teachers' innovation ability, and then enhance the driving force of innovation.

5. The concept of “shared development” : university-university collaboration to enhance the impetus for innovation and entrepreneurship

university-university collaboration is to build a mechanism for collaborative training of innovative and entrepreneurial talents among universities and strengthen the contact and interaction among universities in talent training. Share the achievements of innovation and entrepreneurship on campus, draw on each other's strengths according to the superior resources of each university, and open up a broader way of cooperation and innovation. The relevant requirements of Liaoning Provincial Department of Education, Heilongjiang Provincial Department of Education , Jilin Provincial Department of Education and Inner Mongolia Autonomous Prefecture Department of Education on Promoting Open Education of Ordinary Institutions of Higher Learning and Strengthening Cooperation to Achieve High-quality Development (Liao Education Development [2021]39) have clearly put forward the investigation of cooperation intention to promote the establishment of ordinary undergraduate universities. This is the initial embodiment of university-university collaborative education mechanism, and is a good opportunity for joint training cooperation. The province can cooperate with Jilin University, Northeast Normal University, Northeast Electric Power University and other universities to carry out university-university innovation results, innovative ideas, innovative technologies and other sharing, so as to achieve the effect of complementary advantages of multiple colleges and universities. Through university-university collaboration, it can base itself on Jilin Province, radiate Northeast China, and inject innovative vitality into the economic development of Northeast China.

IV. Conclusion

Based on the analysis of the new development concept and the concept of innovation and entrepreneurship , this paper analyzes the current difficulties faced by innovation and entrepreneurship education, analyzes the integration of the new development concept and innovation and entrepreneurship education, and puts forward five ways to enhance the power of innovation and entrepreneurship in colleges and universities. Among the many innovation subjects and innovation elements, colleges and universities should not only focus on strengthening the collaboration with other universities, departments and enterprises. More importantly, they should strengthen the implementation of innovation and entrepreneurship training content between majors and courses in their own training system, so as to construct a “five-in-one” innovation and entrepreneurship collaborative education mechanism under the new development concept.

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