

The Ideal State to Promote the Integration of Specialty and Innovation in Application-oriented Universities

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Abstract

Advancing the integration of specialization and innovation is an effective way to deepen the comprehensive reform of education in applied universities in the new era and improve the level of running schools. Through the analysis of the logical relationship between professional education and innovation and entrepreneurship education, it is demonstrated in detail that the integration of specialization and innovation is not only the inevitable requirement of the implementation of the national innovation and entrepreneurship education policy and the only way to implement the national innovation-driven development strategy, but also the development direction of the university personnel reform and the inherent demand for entrepreneurship and employment of college students. It shows that the implementation of creative integration in application-oriented universities has certain policy guidance and can cultivate innovative application-oriented talents needed by the society. Therefore, it is necessary and of great practical significance to promote the integration of specialization and innovation in the process of education practice.

Keywords

Application-oriented University; Integration of Specialty and Innovation; The State of Being.

1. Introduction

The emergence of a new generation of information technology, such as Big Data, LOF, AI, and VR, has spawned a large number of new economic industries and raised the standard of demand for talent. Colleges and universities have the three major functions of cultivating talents, scientific research, and serving the society, and cultivating talents is its main task. [1] Under the new situation, how should colleges and universities cultivate high-quality skilled talents with innovative thinking and abilities to meet social needs and promote economic development? The integration of specialization and innovation is a new model for application-oriented universities in the new era to explore comprehensive reforms in education and improve the quality of talent training. It can effectively cultivate students' innovative abilities and professional skills, and enhance their ability to serve the society. Therefore, it is very necessary to promote the integration of specialization and creativity in the process of educating people, which is of great practical significance.

2. Definition of Related Concepts and Logical Relationship

To study the practical significance of the integration of specialization and innovation, it is necessary to clarify the logical relationship between the concepts of applied universities, professional education, innovation and entrepreneurship education, integration of specialization and innovation, and each other.

2.1. Application-oriented University

Compared with academic universities, applied universities generally refer to applied undergraduate colleges focusing on undergraduate education, and their purpose is to cultivate high-quality applied talents that meet the needs of the country's economic and social development. Application-oriented universities (hereinafter referred to as "universities") pay attention to the construction of practical curriculum systems, experimental training platforms and practice bases, and promote the integration of production, education and research through school-enterprise cooperation, integration of production and education, integration of specialization, and collaborative education in order to develop and deepen the comprehensive reform of education to achieve the goal of talent training.

2.2. Professional Education

Professional education refers to education implemented by various types of institutions of higher learning, secondary professional schools, etc., to cultivate various types of professional talents at all levels. The main teaching content is mainly to teach professional knowledge and train students into talents with certain professional knowledge and skills.

2.3. Innovation Education, Entrepreneurship Education and Integration of Specialization and Innovation

Innovation and entrepreneurship education (referred to as "double innovation education") is not an arithmetic superposition of "innovation education" and "entrepreneurship education", but has different connotations and focuses. [2] Generally speaking, the former aims at cultivating talents with innovative consciousness, thinking and ability, while the latter aims at cultivating talents with entrepreneurial consciousness, spirit and ability. The two complement each other. Innovation is the value pursuit of educational development in the new era. It refers to creation at the thinking level and belongs to connotation construction; entrepreneurship takes social economy and culture as the carrier, and refers to creation at the action level, which belongs to extensional development. Cheng Wenxiang (2019) believes that innovation and entrepreneurship education is an organic combination of innovation education and entrepreneurship education. It is an education aimed at cultivating talents with basic entrepreneurial qualities and creative personality. [3] Tokyo International Conference on Entrepreneurship and Innovation Education defines it as cultivating people with the most pioneering personality. [4] Wang Chengrong and others (2018) believe that innovation and entrepreneurship education is for all students to cultivate their innovative and entrepreneurial qualities and thinking, and exercise their double-creation spirit and ability. [5] Based on this, it can be considered that college innovation and entrepreneurship education is for students of all grades, relying on industrial development, based on professional education, and in-depth integration into the entire process of talent training, focusing on cultivating students' innovative spirit, entrepreneurial awareness and innovative entrepreneurial practice ability education.

2.4. The Relationship between Innovation and Entrepreneurship Education and Professional Education

Clarifying the inherent logical relationship between innovation and entrepreneurship education and professional education is the theoretical basis for in-depth study of the integration and development of the two. [6] The development of the two seems to be parallel, but in fact there is a close connection. Professional education is the foundation, and innovation education is based on the former. The common goal between the two is to educate people. Integrating double innovation education into professional education can guide teachers to carry out in-depth curriculum reforms and help students learn frontier knowledge and information. The implementation of innovative and entrepreneurial education supported by

professional knowledge can help teachers understand industry dynamics, industry development and market demand, and stimulate students' motivation to carry out innovation and entrepreneurship based on their majors. It can be seen that the two influence and promote each other.

2.5. The Integration of Specialty and Innovation

Chen Shiyi, an expert on the admission of ten thousand outstanding innovation and entrepreneurship tutors in colleges and universities across the country, pointed out that innovative entrepreneurship education in colleges and universities is integrated into the mode, content and method of professional education and teaching, referred to as "the integration of specialty and innovation". It is a kind of new educational mode which mainly takes professional education and integrates the concept, consciousness, thinking, method, spirit and ability of double-creation education into the teaching of professional education, aiming to impart students' professional knowledge and skills, tap their double-creative ability and potential, and cultivate high-quality applied innovative talents.

3. The Ideal State to Promote the Integration of Specialty and Innovation in Application-oriented Universities

3.1. The Integration of Special and Innovation is an Inevitable Requirement for the Implementation of the National Dual-creation Education Policy

In 2015, the State Council in the "Implementation Opinions on Deepening the Reform of Innovation and Entrepreneurship Education in Colleges and Universities" requires universities to offer interdisciplinary courses, explore the establishment of inter-disciplinary, interdisciplinary and inter-professional cross-training of innovative entrepreneurial talents, and promote the transformation of talent training from a single-type discipline to a multidisciplinary integration. [7] General Secretary Xi pointed out at the 2018 National Education Conference that we should actively participate in the implementation of innovation-driven development strategies, promote collaborative innovation in industry, education and research, and focus on training innovative, composite and applied talents. In 2018, the State Council put forward new requirements for innovation and entrepreneurship in the Opinions on Promoting the High-quality Development of Innovation and Entrepreneurship Education to Create an Upgraded Version of "Double Creation", and universities were given a new mission to train dual-creative talents. [8] The Ministry of Education in the "on deepening the reform of innovation and entrepreneurship education model colleges and universities in 2019 construction work notice" requires that the model schools to tap and enrich all kinds of professional courses of innovative entrepreneurship education resources, the transfer of professional knowledge and innovative entrepreneurial ability training organic integration ... Focus on creating "the integration of specialty and innovation" feature demonstration courses. [9] All the policies introduced by the state are promoting and deepening the double-creation education, and also provide ideas and directions for colleges and universities to promote the integration of creative creation.

3.2. The Integration of Specialty and Innovation is the Only Way to Implement the National Innovation-driven Development Strategy

Under the background of innovation-driven development, Belt and Road, Made in China 2025 and other major national strategic decisions, it is objectively required that colleges and universities must keep up with the national strategic positioning and increase the cultivation of high-skilled and innovative talents with dual-creative ability and actively participate in social construction. The traditional teaching ideas, methods, models and curriculum assessment and evaluation methods of colleges and universities have not adapted to the training requirements

of talents in the new era, and it is difficult to effectively train, evaluate and evaluate innovative and entrepreneurial talents. Promoting the integration of specialization is conducive to changing the concept of higher education and teaching, deepening the construction of professional curriculum system, reforming the traditional single way of assessment and evaluation, and building a dual-creative consciousness, spirit and ability based on professional education, integrating into the dual-creative consciousness, spirit and ability, building an innovative and entrepreneurial education ecosystem covering all teachers and students, and realizing the goal of students mastering knowledge, forming ability and developing quality. The integration of specialty and innovation is the only way for colleges and universities to actively adapt to the needs of economic and social development, train outstanding and innovative talents in the new era, promote the overall revitalization of undergraduate education, realize the intension-based development of higher education, and actively implement the national innovation-driven development strategy.

3.3. The Integration of Specialty and Innovation is the Development Direction of the Reform of Talent Training in Colleges and Universities

The integration of specialty and innovation is an effective way for colleges and universities to carry out the reform of classroom teaching, curriculum assessment and talent evaluation, and also the direction and breakthrough point to build the upgraded version of double-creation education. By deepening the mode of running a school, updating the educational concept, reforming the management system, changing the evaluation mode and promoting the integration of specialty, colleges and universities can promote interdisciplinary construction, science and education integration, production and education integration, and ultimately realize the goal of personnel training. First of all, the integration of specialty and innovation needs to build an interdisciplinary curriculum system, set up a reasonable teaching team, explore innovative system teaching, carry out interdisciplinary research projects, for students to system learning, innovative creation, scientific and technological inventions and project research to provide favorable conditions. [10] Secondly, the integration of specialty and innovation needs to encourage students to take the initiative to "enter the experimental training room", actively carry out scientific and technological innovation practice, advocate scientific and technological innovation instead of the traditional curriculum assessment, change a single form of assessment, to help science and education co-education. Third, the integration of special creation requires teachers to change the teaching concept, the use of flip classroom, sub-classroom and other teaching concepts, with the help of online teaching, offline teaching, online and offline hybrid teaching forms, and the use of modular, integrated, project-type, theme-based, platform-based, inquiry-based and other new teaching, assessment and evaluation methods, to create a "student-led, teacher-assisted" new classroom, high-quality, high-participation professional "golden class" in order to stimulate students' motivation and enthusiasm for learning, and comprehensively enhance students' ability to create and solve problems of practical wisdom. Finally, the integration of specialty and innovation will help the school-enterprise cooperation and production and education integration mechanism innovation, promote the integration of production, education and research, improve the system of collaborative education, build a practical platform for talent training, enhance students' professional knowledge, innovative consciousness, innovative spirit and thinking ability, effectively solve the outstanding problems of double-creative education and professional education "two skins", and promote the cultivation of outstanding and innovative talents.

3.4. The Integration of Specialty and Innovation is the Inherent Demand to Promote the Entrepreneurial Employment of College Students

Professional knowledge is not solid, low practical skills, lack of innovative thinking, lack of entrepreneurial ability seriously affected the entrepreneurial employment of college students.

In the face of entrepreneurial employment, some students obviously do not yet have solid professional knowledge and practical skills, failed to form problem-oriented logical thinking, work is not flexible enough, lack of innovative spirit. The knowledge, ability and quality that should have accumulated in school have become stumbling blocks in college students' careers. Colleges and universities to promote the integration of specialty and innovation, with the help of professional training platform, virtual simulation platform, school-enterprise cooperation platform, innovation and entrepreneurship base to carry out scientific and technological innovation, entrepreneurial practice activities, and give full play to the "Internet Plus" "Challenge Cup" "Daguang Competition" "Creative China" "China Creation Wing" "China Software Cup" and other brand events, explore the evaluation of the test. This "Promoting teaching by competition, Stimulating learning by competition" special integration model can promote the deep integration between general education, dual-creative education and professional education, realize the effective connection between the depth and breadth of knowledge, enable students to master the ability of knowledge construction and migration, experience the harvest of the sense of achievement, and then enhance their innovative thinking, awareness, ability, enhance their entrepreneurial employment confidence.

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