

Exploration of the Current Situation and Mechanism Innovation of University Education Management under the New Situation

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Abstract: In the new era, university education management should be oriented toward the cultivation of innovative talents and the construction of a comprehensive education system. It should develop capable and qualified higher-level talents in response to the social demand for talent application, thereby enhancing the overall educational competitiveness of universities and driving deep reforms in educational activities. However, in current educational practice, efficient educational management often focuses on curriculum development and cultural education, with insufficient attention paid to the development of students' comprehensive literacy. The talent cultivation and education programs are not yet perfect. This article explores the current situation of university education management activities under the new situation and considers practical methods for innovating university education management mechanisms.

Keywords: University education management; New situation; Talent cultivation

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1. Introduction

The Party Central Committee has pointed out in the relevant practices of China's higher education reform that to improve the quality of university education management under the new situation, it is necessary to address the core issues of "for whom to cultivate people, what kind of people to cultivate, and how to cultivate people." Based on the socialist ideology with Chinese characteristics and the national development program, a talent cultivation system should be established to enhance the educational competitiveness and teaching effectiveness of universities, achieving scientific education. According to survey data released by the Ministry of Education, the number of university graduates in 2024 is expected to be approximately 11.87 million, with 1.1765 million graduate students enrolled. The large base of university students has become a prominent feature of higher education. Developing new paths for university education management and enhancing the development potential of university students is an important issue that needs to be urgently solved.

2. Current situation of the construction of university education management mechanisms under the new situation

2.1. Lack of innovation in university education management systems

In his important speech at the National Education Conference, the General Secretary pointed out the need to actively contribute to the strength of education in China through universities and to build an education system with local characteristics. In the new era, universities bear the educational responsibility of cultivating advanced skilled talents, scientific and technological talents, and cultural talents. Therefore, their education management models should also continuously innovate along with the advancement of teaching activities ^[1]. To achieve this, universities should combine humanistic ideology, the ideology of cultivating people through virtue, and the concept of comprehensive ideological and political education under the new situation to develop new models of educating people, aiming to achieve deep and comprehensive education goals. However, from the perspective of current university education management systems, issues such as confusion of rights and responsibilities and low management efficiency still exist. Some universities overly emphasize students' academic performance and achievement, neglecting their comprehensive qualities and innovative skills. For students with special talents, universities have not established tiered management systems. For regular students and graduate students, universities have not developed advanced talent cultivation programs, resulting in the inability of some students to demonstrate their expertise and skills. The construction of university education systems is not sufficiently complete, and there is a lack of innovation in education management mechanisms. Under the new situation, the overall educational competitiveness of universities cannot be effectively improved.

2.2. Insufficient development of modern educational technology

The “Education Informatization 2.0 Action Plan” clearly states that modern educational technology should be properly applied in the new era to drive modern teaching reforms through the wave of education informatization, thereby enhancing the overall effectiveness of university education management. Facing the goals of modern educational reform, universities and teachers should deeply implement the development of modern educational technology, supported by educational clouds, resource libraries, and micro-platforms, to build university education management mechanisms ^[2]. However, in educational practice, some universities have not developed or applied modern educational technology. On the one hand, the level of teaching configuration in schools is relatively low, and there is insufficient development of school-specific educational micro-platforms and teaching resource libraries. The design and implementation of teaching activities still rely on traditional classroom teaching systems. In this case, students cannot accumulate learning experience through extracurricular independent learning and exploration, making it difficult to improve the quality of university education. On the other hand, although some universities have established informatized education management systems, only schools and teachers can apply modern educational micro-platforms in student education. Students lack opportunities to use modern information technology for learning, exploration, and practice. The insufficient development and application of educational micro-platforms, as well as the lack of necessary channels for students to engage in deep learning and comprehensive development, hinder the innovation of university education management systems.

2.3. Lack of innovation in student training and development systems

Under the new situation, universities should actively cultivate talents with practical skills and innovative qualities for the new era, following the basic framework of “coming from reality and going to practice”

to develop students' practical operation skills through comprehensive training activities and promote the innovative transformation of university education management systems. To achieve this, universities should actively establish student training and development systems to drive the comprehensive growth of university talents through practical educational activities. However, reviewing the current development status of university education systems, it is evident that they have not formed a student training guidance mechanism that aligns with the new situation and requirements. Firstly, the scope of training is relatively narrow. In talent cultivation activities, schools only provide a school-based training teaching system oriented towards professional knowledge. In training activities, students lack the necessary channels for innovation, practice, and expansion, resulting in a limited learning scope. Secondly, although some universities have established school-enterprise cooperation mechanisms, training activities still mainly focus on observational internships. Students lack opportunities to participate in enterprise production activities and engage in practical work, hindering the effective improvement of their professional skills. Innovating university education management systems and developing new paths for student training and growth is an important issue that needs to be urgently addressed.

3. Innovative research on higher education management mechanisms under the new situation

3.1. Establishing an educational management system to achieve comprehensive education

Higher education management under the new situation cannot simply start with educational activities but should cover various aspects such as career education, innovative education, and ideological and political awareness education for students. The goal is to cultivate high-quality talents with firm beliefs, innovative consciousness, and professionalism, and to achieve the core development goals of revitalizing the country through education and strengthening the country through talent. For higher education management, a sound management system is a prerequisite for promoting high-quality development. Under the new situation, universities should attempt to develop new channels for educational management, focusing on improving talent quality and planning educational activities to enhance their educational competitiveness and teaching level and drive teaching innovation.

To build a new path for higher education management under the new situation, universities and teachers should collaborate to establish an educational management system and achieve the educational goal of comprehensive education. Firstly, using the educational management system as a guideline, they should plan and categorize university educational activities, determining educational goals in stages and levels ^[3]. Under the new situation, higher education management includes elements such as cultural education, skill education, and ideological and political education. Therefore, universities and teachers should jointly develop a management system that guides students' learning through indicators such as credits and grade points, develops students' professional skills through activities such as skill competitions and vocational skill training, and cultivates students' ideological and political literacy through methods such as ideological and political evaluations and online ideological and political surveys. Driven by the educational management system, professional educational resources and characteristic educational activities within the school are integrated to establish diversified academic development goals for students. Secondly, a talent cultivation system should be established. In response to the requirements of the ideological and political education landscape and innovation and entrepreneurship education, universities should attempt to establish a corresponding talent cultivation system. In the development of the teaching management system, universities can design teaching work based on the basic framework of ideological and political education

and innovation and entrepreneurship education, develop diversified learning channels for students, and initiate student education work using the school's teaching system and training platform, thereby promoting innovation in higher education management mechanisms. In the process of building the education system, universities and teachers should evaluate the school's own educational advantages and create professional course development systems tailored to automated, informatized, and other specialized majors, enhancing the educational competitiveness of related majors. Only by constructing a new system of higher education management under the new situation can we further innovate higher education management programs.

3.2. Deeply developing skill competitions to improve talent quality

To initiate higher education management work under the new situation, relevant universities should aim to improve talent quality and develop modern talent cultivation programs, thereby providing necessary experience support for students' comprehensive development. To this end, universities and teachers should jointly improve the talent cultivation mechanism and actively enhance talent quality. In universities, students' learning abilities and practical literacy exhibit significant differences and teaching methods cannot be generalized. By creating a modern talent cultivation system and promoting the hierarchical and skill development of talents, universities can seize new development opportunities under the new situation.

Establishing a comprehensive skill competition mechanism can effectively improve the level of education management in universities. In the new situation, universities should develop new models of education management based on their own distinctive majors and talent cultivation needs. Taking Beijing Information Science and Technology University as an example, talent training activities can be carried out driven by modern educational technology for its distinctive major of Electronic Science and Technology. Firstly, diversified competition activities should be developed. For instance, the "China Postgraduate Electronic Design Competition" was founded in August 1996. As of August 2020, it has organized 15 related competition activities. Nearly 100 universities, including Harbin University of Science and Technology, North University of China, and China Jiliang University, have participated in related competitions, which have great educational significance for the development of students' innovative consciousness, practical skills, and scientific literacy. The graduate school of the university can take the lead in organizing pre-competition preparation activities and invite experts to provide one-on-one guidance, thereby comprehensively improving students' professional skills. Secondly, a school-based competition guidance program should be established for ordinary students. Taking the Electronic Science and Technology major as an example, before formally launching the competition activities, new activities such as robot design, drone design, and integrated system design should be developed with the support of school-based competitions. After the selection competition, excellent student works and postgraduate works should be displayed to stimulate students' innovative literacy. Thirdly, a professional competition evaluation mechanism should be established, with school professional teachers and industry experts forming an evaluation team. During the students' practical process, the evaluation team should provide guidance and suggestions to strengthen their education management. In the new era, building a new education system that promotes research, teaching, and innovation through competitions, and facilitating the high-quality development of school education activities can further implement the development goals of strengthening the country through education, talent, and technology.

3.3. Building a modern education platform and integrating educational resources

The educational value and advantages embodied by modern educational technology are self-evident. In

the process of talent development and cultivation, it possesses comprehensive service value in improving teaching quality and integrating teaching resources, thus providing a new entry point for innovations in higher education management mechanisms. As modern educational technology gradually penetrates the educational guidance activities of universities, schools and teachers should actively apply modern educational technology to facilitate innovative reforms in higher education management systems^[4]. In response to the design and implementation requirements of higher education management activities, institutions and teachers should jointly develop educational resources and integrate educational experiences, thereby supporting the innovative implementation of higher education management activities.

Under the new situation, universities should construct their higher education management systems according to the basic framework of professional teaching requirements and talent development requirements, enhancing the overall service effectiveness of teaching activities. Taking the teaching of Instrument Science and Optoelectronic Engineering as an example, the design of relevant professional teaching activities should be carried out according to the current situation and prospects of industry development. After students have mastered professional knowledge, they should be organized to participate in activities such as academic competitions and extracurricular innovative practices. Schools and teachers interact with students through online teaching micro-platforms, initiate teaching work around basic course knowledge, and provide students with a necessary platform to master professional knowledge and practical skills. On the one hand, teaching activities are implemented by targeting objects such as quadruped robots, bionic robots, and special operation robots proposed in modern technology. Teachers develop online resource libraries, using the EX Robot from Dalian Jinshitan and the “Big Dog” robot developed by China South Industries Group Corporation as objects to explain the development history of bionic robots to students. In online teaching, online teaching sections are developed by combining resources such as “Bionic Robot Design Composition,” “Bionic Robot Development Ideas,” and “Bionic Robot Design Cases” to enhance students’ knowledge reserve levels. On the other hand, students are encouraged to engage in deep learning through modern information technology^[5]. Teachers and universities can collect existing bionic robot models, such as “reconnaissance and combat integrated quadruped robots” and “industrial transportation service robots,” and develop online modules based on the reconnaissance, transportation, and information exchange functions of bionic robots. They can study materials such as “Boston Dynamics ATLAS,” “Avatar T-HR3,” and “Ford Delivery Robot.” University teachers allow students to participate in school-based competition activities, demonstrating the design principles, design requirements, and functional configurations of bionic robots. Relevant platforms should be fully open to students and provide them with corresponding creative inspiration and learning materials. With the help of the modern education platform, university students can develop their own good sense of innovation in the process of self-study and exploration, thus responding to complex talent cultivation requirements.

3.4. Building a school-enterprise cooperation mechanism to enhance talent quality

To promote innovative reforms in higher education management programs based on the new situation, universities and teachers should actively facilitate innovative construction of school-enterprise cooperation, building a school-enterprise cooperation system based on university teaching requirements to enhance the modern talent delivery capacity of schools. In the new situation, schools should cultivate excellent talents with innovative awareness and practical skills to demonstrate students’ comprehensive educational competitiveness. To this end, universities must break away from the educational rut centered on internships and visits, encouraging students to carry out comprehensive learning activities in corporate practice to

enhance their comprehensive skills ^[6]. Only by building a dual education mechanism of theory and practice through school-enterprise cooperation can the comprehensive growth of university students be driven.

In the new situation, universities should attempt to innovate school-enterprise cooperation programs to build a new education system that enhances talent quality and develops talent competitiveness. On the one hand, it is necessary to actively develop a joint talent training system between schools and enterprises. In student education activities, universities and teachers jointly build learning platforms for students, innovating talent education and training programs. In 2024, the number of fresh graduates from universities is expected to be 11.79 million, an increase of 210,000 compared to 2023, with an employment rate exceeding 83%. Supported by vast data, universities should actively innovate school-enterprise linkage programs, using events such as job recommendation meetings for employment enterprises and selection of the most competitive enterprises as entry points to provide students with industry development information and employment information, stimulating students' enthusiasm for employment and interest in learning. Taking Shandong University of Technology as an example, in response to the development needs of Zibo City, it aims to promote the integration of industry and education with the goals of "Ten Actions" and "Six Collaborative Actions between Schools and Enterprises." Universities should actively provide students with various job position information, conduct pre-counseling on professional quality and vocational skills, and prepare students for future career selection and employment. On the other hand, it is imperative to establish good cooperative relationships with local enterprises. After constructing a school-enterprise cooperation program based on the current situation of the school's professional development, universities can attempt to communicate with enterprise units. For example, the strong cooperation between Beijing University of Technology and Zhongjing Aerospace, and the school-enterprise cooperation between Beijing Information Science and Technology University and Yongda China, are based on the employment needs of enterprises and have developed a talent training mechanism from universities to job positions, achieving effective transformation from degrees to careers. University teaching majors include engineering, science, finance, accounting, law, and other fields. In the construction of the school-enterprise cooperation system, students can study based on their chosen majors, relying on practical positions to enhance their overall quality. After students participate in corporate training, corporate talents should work with teachers to evaluate students' learning performance and provide learning suggestions to students, thus providing the necessary conditions for innovative implementation of university teaching management.

4. Conclusion

To build a new mechanism for university teaching management under the new situation, relevant universities and teachers must address the negative issues of outdated teaching management systems and homogenous talent training programs, thereby enhancing talent delivery efficiency and promoting innovative reforms in university teaching management activities. To this end, universities and teachers can attempt to provide students with a new platform for comprehensive learning and continuous development from perspectives such as the development of modern education platforms, construction of teaching systems, and school-enterprise cooperation training, driving students' gradual development with professional knowledge and diversified teaching activities.

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