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Research on Talent Training in Colleges and Universities under the Background of High-quality Development

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Abstract

China's higher education has entered a new stage of high-quality development, moving towards coordinated development after critical development, connotation development after hardware improvement, and value development after external oppression. The scientific and technological revolution brings new challenges, the industrial revolution promotes a new orientation, the educational revolution gives birth to a new paradigm, and talent training in colleges and universities is facing a new situation. In order to cultivate more new and high-quality talents, we must adhere to the growth of students as the center, pay attention to the creation of professional characteristics, pay attention to strengthening the integration of industry and education, pay attention to the intersection of disciplines, and strive to build a first-class talent training ecosystem.

Keywords

High-quality development; Talent training; First-class talents.

1. Background

As the concentration and trainer of social talent elite, the level of running a university not only determines the students' future, but also affects the level of social development. At present, China's population of receiving higher education has reached 240 million, and the total number of students in higher education has exceeded 44.3 million. The gross enrollment rate of higher education increased to 57.8% in 2021, building the world's largest higher education system and entering the global universalization stage. [1]With the gradual expansion of the scale of higher education, the increase of the number of students and educational funds year by year, the source of students, teachers and funds have long become competitive resources in the higher education system. Education should not only follow the basic laws of education and teaching, but also deal with the coordinated relationship between the government and society, and coordinate the functions of teaching, scientific research, service and innovation. Under the severe challenges of increasingly severe international competition, accelerated scientific and technological revolution, industrial upgrading and deepening innovation in social governance, higher education's supporting and leading role in social development has become increasingly prominent. How to grasp the characteristics of the new stage of the development of higher education, further strengthen the integration of science and education, and improve the talent training system in colleges and universities has become an essential part of the reform of talent training in Chinese colleges and universities.

2. Higher Education in China Has Entered a New Stage of High-Quality Development.

General Secretary Xi Jinping said, "Development is not only the key to solving all China's problems, but also the first important task for the Communist Party of China to govern and

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rejuvenate the country." At present, the principal contradiction in our society has been transformed into a contradiction between the people's growing needs for a better life and unbalanced and inadequate development, which requires us to pay more attention to the quality of development while pursuing the speed of development. Continue to improve development efficiency. High-quality development embodies the new concept of development, and it is the transformation of economic development from "have or not" to "good or bad". [2]While gaining the advantage of scale, higher education should adhere to Chinese characteristics and world-class, and strive to achieve high-quality development with low investment, low cost, high efficiency and good efficiency.

2.1. From Critical Development to Coordinated Development

Since the founding of New China, China has successively implemented a series of major educational projects such as "985", "211", "2011 Program" and "double first-class", pushing a number of universities and disciplines into the first-class ranks of the world and leading the coordinated development of other universities. In particular, the "opinions on the Revitalization of Higher Education in the Central and Western regions in the New Era" issued in 2020 made it clear that innovative and comprehensive platforms for higher education should be built in the northwest, southwest and central regions respectively.[3]In the continuous pursuit of their own development, catch up with the goal at the same time, how to maintain advantages and achieve high-quality coordinated development has become a new topic. The purpose of high-quality coordinated development is to achieve a dynamic balance of high-quality resources. Today, with the gradual increase of economic investment, it should be able to dynamically optimize the allocation of educational resources and gradually shorten the gap in the quality of education within and between regions. Respect students' right to receive quality education and promote educational democracy and equity, to ensure the open sharing of educational resources and the all-around development of students.

2.2. From Hardware Improvement to Connotation Construction

Under the background of the intensification of social transformation and the improvement of school hardware, school culture does not establish a new cultural paradigm that can be relied on, but consciously or unconsciously follows the logic of the technical field under the impact of the concept of "modernization".[4]The high-quality development of higher education is a strategic choice to meet future challenges. The high-quality development of higher education should pay attention to diversified, innovative, open, cluster, and intelligent development.[5]China Education Modernization 2035, issued by China, clearly proposes to build a modern education system that serves the lifelong learning of the whole people, significantly enhances the competitiveness of higher education, and forms a new pattern of educational governance with the participation of the whole society. This requires colleges and universities to formulate a working system for all students and pay attention to the healthy growth of all students, strengthen the construction of teachers in the new era, deepen the comprehensive reform of education and teaching, and continuously optimize the structure of disciplines and specialties. We will improve the allocation and guarantee support of information-based education resources, and constantly improve the modern level of the modern university governance system and governance ability.

2.3. From Extension to Value Pursuit

Education should be "the education of freedom", "for the sake of human freedom", "through human freedom" and "realizing human freedom". Under the influence of utilitarian educational values and educational goals for further study and employment, quality education is bound by "evaluation awards" and "ranking indicators" imposed by the outside world, ignoring the law of the healthy development of education, resulting in the unhealthy and unsustainable

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development of education. High-quality development should start from the humanistic spirit of the "whole person", gradually eliminate the shackles and constraints of external nothingness, respond to social concerns and return to the educational standard. From the perspective of student development, teacher growth and school construction promote the driving force of school development, and realize the deep integration of extension expansion and value promotion.

3. Talent Training in Colleges and Universities Is Facing New Challenges and New Situation

The core task of higher education is to cultivate talents. From the new requirements of high-quality development, training more high-level innovative talents is necessary. However, in the process of talent training in higher education, the degree of adaptation to scientific and technological development requirements, the degree of matching with industrial demand, and the degree of support for educational reform need to be further improved.

3.1. The Scientific and Technological Revolution Brings New Challenges

Scientific and technological revolutions such as information technology, biotechnology and artificial intelligence make knowledge acquisition more convenient. According to relevant survey data, human knowledge doubles every 2-3 years. The new technological revolution will reject those who "cannot cross the border". When recruiting graduate students, the MIT Media Lab, which is famous for interdisciplinary research, requires applicants to simultaneously apply for at least three different research areas, highlighting the requirements for broad knowledge horizons and interdisciplinary research capabilities.[6]With the construction and development of information technology and mu courses in recent years, the multiple learning ways and forms of "everyone can learn, everywhere can learn, and can learn all the time" have become possible. Lifelong learning, creative thinking, communication and cooperation and other comprehensive literacy have become important in training innovative compound talents in the new era.

3.2. The Industrial Revolution Promotes the New Orientation

At present, it has stepped into the fourth industrial revolution in the era of intelligent manufacturing from the first industrial revolution in the steam era, the second industrial revolution in the electrical era, and the third industrial revolution in the information technology era. Klaus Schwab pointed out that whether the arrival of the fourth Industrial Revolution can become a sharp weapon to achieve leaping development or widen the gap between economies will depend on people's ability to control.[7]Limited to the lack of original innovative technologies such as intelligent manufacturing technology, new material technology and new energy technology, China's manufacturing industry as a whole is large but not strong, large and not excellent, especially affected by the new economic normal, speed change, structure optimization, power transformation and so on. Talent training is needed to seek a new orientation from adapting to the industrial revolution to leading the industrial revolution.

3.3. Educational Revolution Gives Birth to A New Paradigm

At present, with the acceleration of the intersection of disciplines based on "artificial intelligence +" and "big data +", the original professional knowledge system of disciplines has been constantly broken, and derived from many new and cross-disciplines, many well-known foreign universities have begun to explore new forms of teaching organization. For example, the Massachusetts Institute of Technology released the NEET program, which provides students with major learning content in five directions, including Advanced Materials Machines, Autonomous Machines, Living Machines, Digital Cities and Renewable Energy Machines, which aims to train new engineering talents for the future.[8]At present, the scale of higher education

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in China ranks first in the world, and higher education has entered the popularization stage, and the new requirements for the cultivation of diversified talents in the popularization era, such as outstanding talents, leading talents, innovative talents, elite talents and so on. it is bound to give birth to a new paradigm of integration of talent training.

4. Key Measures to Reconstruct the Talent Training System

The report of the 19th CPC National Congress clearly pointed out: "Building an educational power is the basic project for the great rejuvenation of the Chinese nation, and we must give priority to education, deepen educational reform, speed up educational modernization, and do a good job in education to the satisfaction of the people." [9]As the main force of talent training, colleges and universities must focus on building a high-level talent training system to provide important support for speeding up the construction of a powerful country in education and the in-depth implementation of the strategy of strengthening the country with talents in the new era.

4.1. Persist in Taking Students' Growth as the Center

People are not only the center and starting point of education, but also the purpose and destination of education. The key to all education is to make people become free beings and the subject of free development. The basis of the rationality of the value of the educational system should point to human liberation and freedom, and should serve for the expansion of human educational freedom and the promotion of human free development. [10] For this reason, we should firmly establish the concept of learning-centered OBE, take the promotion of students' all-round development as the main line, take curriculum education as the guide, promote all kinds of courses to educate people in the same direction and cooperate with each other, pay attention to science education and humanities education, general education and professional education, theoretical teaching and practical teaching, the connection between the first classroom and the second classroom, and strengthen the cultivation of creative thinking, innovative spirit, entrepreneurial consciousness and innovative entrepreneurial practical ability. Comprehensively enhance students' competitiveness in employment and the internal driving force of development.

4.2. Pay Attention to Creating Professional Characteristics

"Some opinions on further promoting the construction of world-class universities and first-class disciplines" clearly points out that it is necessary to "optimize the management evaluation mechanism and guide the construction of the characteristic development of colleges and universities".[11]Today, with the increasingly fine division of labor in the labor market, the level of specialization has been raised to an unprecedented position, and characteristics have become a condition for the survival of a university. The core competitiveness of a university is the unique characteristics and advantages of a university. [12]For this reason, we must further focus on the connotation of the specialty and the characteristics of running a school, organize full discussions on disciplines and specialties around the frontiers of science and technology and major national strategies, and find out the focal points that support the development of the service industry. to build a professional system with distinctive characteristics that adapts to the development of social industries.

4.3. Pay Attention to Strengthening the Integration of Industry and Education

The market, whether it is a concept or a real social force, determines that higher education must have new attributes in the new ecological environment.[13]According to the new requirements of new technology, new industry, new business type and new model for talent training in the new era, we must closely revolve around the national strategy and the needs of industry and

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regional development, find the right combination point of talent training and industry demand, further strengthen the deep cooperation with industries, enterprises and research institutes, promote the deep integration of industrial chain, innovation chain and talent chain, and actively make use of the high-quality resources of enterprises and industries. Bring new content and technologies such as artificial intelligence, big data, cloud computing and blockchain into the existing curriculum teaching system, and introduce cutting-edge knowledge, industry development direction and the latest scientific research achievements into the classroom, so as to vigorously improve the talent training level at the forefront of the development of the industry.

4.4. Pay Attention to the Interdisciplinary Recombination

According to the Manufacturing Talent Development Planning Guide issued by the Ministry of Human Resources and Social Affairs and the Ministry of Industry and Information Technology, the talent gap in China's 10 key areas of the manufacturing industry will exceed 19 million in 2020, and the number will be close to 30 million in 2025, with a gap rate as high as 48%.[14]The cross-disciplinary and cross-disciplinary integration that the development of new engineering depends on involves not only the cross-integration of different engineering disciplines, but also the cross-border integration of engineering and science, as well as the intersection, cross-border and integration of engineering and humanities and social disciplines.[15]For this reason, with the support of superior disciplines, we should strengthen the cross-integration of science, engineering, liberal arts, medicine and other disciplines, and make overall plans to set up public basic courses, introductory courses and professional courses. Vigorously promote the integration of theory and practice, in-class and extra-curricular, online and offline, integrate disciplinary courses and professional courses, and encourage students to take interdisciplinary elective courses. To provide more advanced, innovative, research and international development courses for students with different characteristics to improve students' ability to solve systematic and comprehensive complex problems.

5. Conclusion

The worldwide popularization and popularization of higher education make higher education face more fierce competition, and the introduction of competition mechanism has become a standard policy for developing higher education. According to D.Bok, former president of Harvard University, competition and autonomy are a companion pair, and the autonomous nature of American universities allows competition between school levels to arise. In turn, competition subtly preserves and strengthens the autonomy of the school. Under the new situation, colleges and universities must adhere to the principles of moral education and learning, deepen the comprehensive reform of education and teaching, promote the cross-fertilization of disciplines, continuously improve the level of modern university governance, enhance the core competitiveness of talent cultivation and lifelong development ability, build a contemporary, scientific and forward-looking cultivation system, and continuously promote the high-quality development of higher education.

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