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EMPOWERING THE FUTURE: A VISION FOR LOCAL UNDERGRADUATE UNIVERSITIES IN WORKFORCE DEVELOPMENT "

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ABSTRACT
This study focuses on the imperative need to strengthen the cultivation of high-quality technical talents in local undergraduate universities, particularly in the context of transforming them into applied universities. These institutions play a pivotal role in the industrial transformation of old industrial bases and the cultivation of scarce talents essential for the revitalization of Northeast China. To achieve this, local undergraduate universities must embrace a central focus on talent development and adopt a strategy that involves establishing open enterprise practice teaching bases. This research explores the multifaceted connotation of enterprise practice teaching bases, emphasizing their role in integrating and enhancing collaboration between academic institutions and industries in terms of personnel training objectives, professional curricula, and practical teaching systems. The Ministry of Education's "Guiding Opinions on Guiding Some Local Ordinary Undergraduate Universities to Transform into Application-oriented Universities" is a significant reference point, outlining the essential aspects of deepening reforms in talent training programs and curriculum systems. The document underscores the importance of innovative approaches in the training of application-oriented talents, the establishment of professional systems closely aligned with industrial and innovation chains, and the reinforcement of experimental practice bases.

Keywords: enterprise practice teaching base, applied talents, local undergraduate universities, talent training, curriculum system.

1. Introduction

The school aims to strengthen the cultivation of high-quality technical and technical talents, support and guide a group of local undergraduate colleges to transform into applied universities, organize and carry out pilot reforms for the dual cultivation of technical and technical talents in the industrial transformation of old industrial bases, and cultivate scarce talents in the revitalization of Northeast China.Therefore, it is the most essential and effective way for local undergraduate colleges to adhere to the central position of talent training and take the road of running an open enterprise practice teaching base to cultivate applied talents and effectively improve their ability to serve regional economic and social development. Therefore, it is of great theoretical and practical significance to construct the training system of applied talents in local undergraduate universities based on enterprise practice teaching base[1].

(1)The research on the connotation of enterprise practice teaching base mainly aims at the requirements of promoting the integration and development of schools and enterprises in personnel training objectives, professional curriculum and practice teaching system, and explains the

connotation of enterprise practice teaching base from different angles[2]. The Ministry of Education's Guiding Opinions on Guiding Some Local Ordinary Undergraduate Universities to Transform into Applicationoriented Universities specifically points out the guiding opinions for transforming and developing universities to take the road of school-enterprise cooperation in enterprise practice teaching bases from the aspects of deepening the reform of talent training scheme and curriculum system, innovating the training mode of application-oriented talents, establishing a professional system closely connected with the industrial chain in innovation chain, and strengthening the construction of experimental practice bases[3].

(2)Research on the motivation of enterprise practice teaching base. It is considered that the motivation of enterprise practice teaching base is mainly driven by schools and enterprises, and the country, government and society are also important driving forces of enterprise practice teaching base.

(3) The research on the mode of enterprise practice teaching base mainly focuses on the field of vocational education, but undergraduate education has not yet formed a typical mode and successful experience of applied talents training based on enterprise practice teaching base, which can be fully popularized[4].

(4)Research on the restrictive factors and countermeasures of enterprise practice teaching base. Experts and scholars put forward countermeasures from various angles in view of the contradictions and problems in the comprehensive deepening and development of enterprise practice teaching base and school-enterprise cooperation in China[5].

2. Significance of topic selection

At present, China's "guiding the transformation and development of some undergraduate colleges" is still in the initial stage of practice. The theoretical research on the training of applied talents based on "enterprise practice teaching base" mostly focuses on secondary vocational and higher vocational colleges, with little research on the undergraduate level, and the research specifically on the training of applied talents in the enterprise practice teaching base of local undergraduate colleges is very limited, which can no longer meet the theoretical guidance requirements for the training of high-level applied talents needed for the comprehensive revitalization of old industrial bases such as Northeast China and the national regional economic restructuring and industrial upgrading. Therefore, the research on the training system of applied talents in local undergraduate colleges based on enterprise practice teaching base is helpful to extend the level of higher vocational education, promote the training of applied talents at undergraduate level, and provide theoretical basis for accelerating the establishment of a complete training system of applied talents at all levels. The research on the training system of applied talents based on enterprise practice teaching base takes local universities as the research object. Through the establishment of the training system of applied talents in enterprise practice teaching base, the training practice of applied talents at undergraduate level in local universities is promoted, the deep integration of regional enterprises and teaching is promoted, and the industrial chain with advantages and potential for major technical equipment, high-end intelligent manufacturing, new materials and biology in our province is closely connected with innovation chain, effectively serving the regional economic and social development and promoting the comprehensive revitalization of the old industrial base in Northeast China. In addition, the virtuous circle mode of mutual communication and mutual promotion

between the cultivation of applied talents and the development of regional economy has a certain reference and promotion effect on promoting the transformation and characteristic development of local universities across the country[6].

3. The research contents and objectives are as follows

(1) The formation of enterprise practice teaching base.

The training of applied talents in local colleges and universities takes the construction of enterprise practice teaching base and the talent training mode of school-enterprise cooperation as the breakthrough point, and forms a network of enterprise practice teaching bases with effective connection of education chain, talent chain and innovation chain, so as to train and transport applied professional and technical talents with local characteristics for enterprises and realize the goal of application-oriented undergraduate colleges and universities serving local economic and social development[7].

(2) Strengthen the experiment, training and practice.

Practice teaching is an effective way to consolidate theoretical knowledge and deepen theoretical understanding, and an important link to cultivate applied talents with innovative consciousness. We abandon the traditional education model of emphasizing theory over practice in elite education in the past, and by strengthening experiments, practical training, and internships, we inspire students' innovative thinking, develop their innovative potential, and cultivate their innovative abilities. Research, explore, and construct an open practical teaching system to enhance students' ability to apply theoretical knowledge to solve practical engineering problems, and strive to cultivate students' practical abilities and innovative entrepreneurial spirit. Strengthen teaching quality monitoring and information feedback, and establish a quality centered and fully participatory training and internship quality assurance mechanism.

(3) Concise professional features and optimize teaching content.

The construction of professional course system of enterprise practice teaching base is based on the concept of student-centered, output-oriented (OBE) and continuous improvement of education, combined with the needs of local economic and social development and the needs of applied talents in enterprises, and with reference to professional certification standards, the teaching content and course system are optimized, and courses are set scientifically to support graduation requirements.

(4) Optimize the construction of dual-qualified and dual-functional teachers.

We build an open teaching staff, adhere to the principles of "going out" and "bringing in", organize teachers to go deep into the frontline of enterprises, participate in practical and innovative activities such as daily production, new technology research and development, and product upgrading, and hire hightech talents with rich production experience, including enterprise engineers and professional technical talents, to participate in the entire process of talent cultivation in universities as full-time or part-time teachers[8].

(5)Build a cloud platform for teaching resources of enterprise practice teaching base.

Facing the needs of internet plus era, we should build a cloud platform for teaching resources of enterprise practice teaching base, realize the sharing of teaching resources in the cloud, realize the free display and acquisition of resources of colleges and enterprises practice teaching base by innovative resource construction methods, and lay a data foundation for enterprise practice teaching base.

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4. Research ideas of this topic

(1)School-enterprise cooperation talent training mode

We take the transformation of local undergraduate colleges and the newly set professional training goals as an opportunity, relying on existing scientific research platforms such as teachers and laboratories, and relying on policy support and coordination from local governments, to lead the gathering of relevant enterprises and research institutes in the region. Based on the principles of mutual benefit and coordinated development, we establish enterprise practical teaching bases and school enterprise cooperation talent training models. Form a network of enterprise practice teaching bases in which disciplines and specialties are connected with industrial post groups, school teaching process is connected with enterprise production process, school curriculum content is connected with post professional standards, school culture is connected with enterprise culture, and academic certificates are connected with professional qualification certificates, so as to cultivate and transport applied professional and technical talents with local characteristics for enterprises and realize the goal of application-oriented undergraduate universities serving local economic and social development.

(2) Reform the operation mode of practical teaching.

Using the existing experimental environment of local undergraduate colleges and trade association enterprises to build an all-round open practical teaching platform, and by providing extracurricular independent practice activities matching the curriculum, we will build a practical teaching system integrating in-class teaching and extracurricular independent learning, and integrating theoretical teaching and practical teaching, and strengthen the links of experiment, training and internship, so that students can have solid basic knowledge, strong international vision, innovative consciousness, innovative ability and leadership potential as well as follow-up learning potential. We fully leverage the main role of the teaching and research department, teachers, and students in the evaluation of the three levels, strengthen the management of talent cultivation plans, teaching processes, and teaching conditions, and build a comprehensive quality assurance system for practical teaching. Seriously carry out monitoring of the practical teaching process, so that monitoring covers the main links of teaching, highlighting the connotation construction and characteristic development of "application"; Based on the basic status database and process monitoring evaluation of practical teaching, improve the teaching evaluation index system and highlight the evaluation of practical links.

(3)Rebuilding the professional curriculum system based on enterprise practice teaching base.

In view of the characteristics of talent training in application-oriented undergraduate colleges, we study the "national standard" and establish guiding opinions with reference to the undergraduate professional curriculum system of engineering education certification standards, highlight the cultivation of application ability, improve the proportion of practical teaching, and form a curriculum system of "foundation+specialty+general education+practical teaching". The framework of curriculum structure is divided into two systems and six modules. The two systems include theoretical teaching and practical teaching curriculum system. The six modules include general education, professional foundation, specialized courses, practical teaching and quality development and innovation courses, which effectively meet the economic and social development needs of "new technology, new industry, new format and new model".

(4) To build a team of teachers with dual qualifications and abilities.
We establish an open teaching staff and adhere to the combination of "going out" and "bringing in". College teachers "go out" and go deep into enterprises to participate in practical and innovative activities such as production, research and development; Experts from trade associations and scientific and technological talents from enterprises are employed as full-time or part-time teachers to participate in the whole process of cultivating applied talents, so as to realize the double communication between teachers from schools and enterprises, reflect the requirements and guidance of the concept of cultivating applied talents in enterprise practice teaching bases in the construction of teachers, strengthen the fit between the cultivation of applied talents from schools and the needs of social enterprises, and improve the employment rate and quality of college graduates.
(5)Building a cloud platform for teaching resources of enterprise practice teaching base.
We are building a teaching resource cloud platform in the enterprise practical teaching base, making teaching resources cloud resources and supporting real-time access by university and enterprise users.The cloud platform of enterprise practice teaching base adopts the teaching resource model of enterprise practice teaching base, which provides a hierarchical and structured resource organization form from two aspects of teaching resources and industrial resources. The resources include academic resources such as traditional teaching and real technology application cases produced by enterprises, data made in the production process and data generated by products, etc., and support text, pictures, videos and various arbitrary combinations thereof. At the same time, the automatic audit of system resources is realized by intelligent algorithm, and the concurrent access requirements of resource access are met by using distributed resource efficient access scheme.

5. Research methods

This topic adopts the research idea of combining actual investigation with theoretical analysis, starting from the current reality, tracing the formation process of the problem and looking forward to the future development. The specific research methods are as follows:
(1) Literature method: We utilized resources such as libraries, reference rooms, and journal websites to search, read, organize, and classify literature using keywords such as "enterprise practical teaching bases", "enterprise needs", "applied talents", and "talent training systems". We analyzed the research results and current development status of applied talent training systems in domestic and foreign enterprise practical teaching bases, laying a foundation for the smooth development of the research. (2) Investigation and research method: In the actual research process, the members of the research group conducted research on local enterprises through online questionnaire survey and field survey, covering major industrial fields and the scale and types of major enterprises. In addition, we will also refer to the investigation and research results of some domestic scholars to ensure the truthfulness and validity of the research data.
(3) The method of system theory: research is carried out by using systematic methods, and the training system of applied talents is constructed as a whole, making it effective and scientific.

6. Technical route and implementation steps

(1) Deeply understand and determine the plan; We organize the development of project implementation plans, strengthen organizational leadership, implement division of responsibilities, and comprehensively and orderly promote work in accordance with established goals.

(2) Highlight key points and create advantages; Based on the project implementation plan, we adhere to the idea of highlighting key points and creating advantages, implement a plan to cultivate teachers' practical teaching ability, and comprehensively and efficiently improve teachers' practical teaching ability and innovation and entrepreneurship ability.

(3) Grasp the key points and refine the characteristics; We actively strive for policy support, concentrate school resources, reform the operation mode of practical teaching, improve the practical teaching system, innovate the management system and mechanism of practical teaching, deepen the reform of practical teaching, and strengthen the construction of practical teaching platforms.

7. Conclusion

Taking Liaoning Province as an opportunity to be approved as the first batch of national enterprise practice teaching base cities, and guided by the need to revitalize the old industrial base in Northeast China, this topic selects the base school of "Innovative Experimental Project of Enterprise Practice Teaching Base" of the School Planning and Construction Development Center of the Ministry of Education and the first batch of pilot colleges in Liaoning Province for the comprehensive transformation to application-oriented. According to the necessary knowledge, ability and quality requirements of enterprises for applied talents, This paper proposes to build an applied talent training system in local universities with deep integration of enterprise and teaching, emphasizes the optimization of applied talent training with enterprise practice teaching base and school-enterprise cooperation as the breakthrough, effectively promotes the connection of education chain, talent chain and innovation chain, deepens the depth of enterprise practice teaching base in local universities, and provides theoretical support and practical basis for universities to explore the establishment of excellent professional talent training mode, thus providing exemplary methods and cases for the construction of "enterprise practice teaching base city" in our province.

References

Zacan Zhang, Tang Yuchao, Xu Shiai, Li Shuiqiang. Research on the management mode of university laboratories in various discipline competitions. Experimental Technology and Management, 2014, 2324.

Feng Quan. Research and exploration on the implementation of open experimental teaching in engineering colleges. China Electric Power Education, 2013, 104-106

Chen Xiaolong, Li Qirui, Peng Zhiping. Network engineering professional training program reform based on "Excellence Plan". Computer Education, 2012, 202-203.

Wu Yuanxin, Wang Cunwen. Relying on the professional school-enterprise cooperation alliance to innovate the training mode of applied talents. China university teaching, 2012, 245-246.

Liu Lugao, Chen Jing. Dilemma and breakthrough of local college students' innovation and entrepreneurship education. Education and Teaching Research, 2012, 78-79.

Lin Jian. Construction of engineering teachers who are qualified to train outstanding engineers. Research on Higher Engineering Education, 2012, 101-103

Du Xuewen, Shen Xi, Gu Rong. A new way to train vocational teachers in colleges and universities under the mode of combining work with study. Research on Higher Engineering Education, 2011, 233235.

Zeng Fanli. Strengthen the construction of experimental teams in colleges and universities to promote the cultivation of innovative talents. Research and exploration in laboratory, April 8, 2009.5-7.