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### RESEARCH ARTICLE

## Research on the Construction of Training Bases in Local Applied Colleges and Universities Empowered by “Three-Chain” Synergy

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### Abstract

In the context of production-education integration, joint construction of practical training bases by schools and enterprises is crucial for improving the quality of talent training in local universities and supporting local economic and social development. Research on the existing training bases at Hezhou University reveals issues such as limited specialty coverage, low alignment between the industrial chain and talent development, weak industry-university-research collaboration, and the need for improved support for disciplinary competitions. To address these issues, an optimization strategy based on the synergy of the "industry chain, practice chain, and competition chain" is proposed. This includes expanding industry-education integration, deepening practical training integration, leveraging the industry chain's benefits, creating a multi-dimensional practice system, and promoting the transformation of competition results to enhance high-quality talent development.

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### 1. Introduction

The 20th Party Congress has given higher education a new strategic position, historical mission and development pattern. With the scientific and technological revolution, industrial change in-depth promotion, the urgent requirements of educational change, universities and colleges “training what people, how to train people, for whom to train people” also need to follow the pace of the times, around the new changes in the development of the society and effectively training of talents and new business models, emerging industries to adapt to the development of the education chain, Talent chain and industrial chain, innovation chain of the depth of integration, so as to serve the economic and social development of high quality. The construction of training base is the main place in the framework system of university industry-teaching integration and collaborative education, through the study of the current local applied colleges and universities in the industry-teaching integration of the construction of training bases, not only can fully rely on the government, enterprises, industry resources to make up for the practice of talent cultivation of colleges and universities, but also for universities in the process of strengthening the foundation of the transformation, and the government, enterprises, industry to achieve long-term cooperation to provide a solid foundation. First of all, the “industrial chain” focuses on an industry and its upstream and downstream industries, forming a specific chain organization talent demand [1]. By moving the vertical and horizontal organizations on the “industrial chain” to the campus, it establishes a practical training base for the integration of industry and education with colleges and universities, and realizes the targeted training of professional talents. On this basis, the

“practice chain” focuses on the needs of regional economic development, and promotes a more rational structure of the talent team. Practice teaching highlights the local characteristics of professional services, relying on the school-enterprise training bases constructed by the “industrial chain” to cultivate innovative and entrepreneurial talents who can be used and retained for local and regional economic and social development. The “competition chain” further relies on the platform of training bases, and promotes the systematization of the competition training process, popularization of content and achievement of works on the basis of the industrial resources provided by the “industrial chain” and the talents cultivated by the “practice chain”. It also promotes the systematization of the training process, the popularization of the content, and the achievement of the works. Through the competition activities, the innovation and entrepreneurship ability of university talents is continuously improved, while highlighting the mode of school-enterprise cooperation in building training bases, boosting the effectiveness of the training of applied talents, forming a “three-chain” mutual promotion and synergistic development, and jointly promoting the overall enhancement of the quality of talent cultivation in universities and providing a powerful guarantee for the high-quality development of the regional economy. Talent guarantee.

## **2. Status of Construction of Training Bases**

### **2.1 University-Enterprise Co-construction of Industrial College Model**

The joint construction of industrial colleges by schools and enterprises is an important model for deepening the integration of industry and education and promoting the close integration of education and industry. Industry colleges are closely aligned with the local industrial layout and have become an important force in boosting the high-quality development of the economy [2]. Through the joint construction of industry colleges by schools and enterprises, the cooperation between schools and enterprises is strengthened to realize the deep integration of educational resources and industrial resources, to develop more accurate talent training programs for the needs of specific industries or fields, and to provide students with education and training that is more relevant to the actual situation and meets the market demand. The modern industry colleges of recreation and tourism in colleges and universities rely on tourism management, sports rehabilitation, public utility management and other specialties, and cooperate with relevant enterprises and scenic spots to build industry colleges. Facing the region, facing the industry, facing the industry to run the school, to promote the “education chain, talent chain and industry chain, innovation chain” organic convergence, so that students out of the classroom, in-depth enterprise, personally involved in the business process, standing in a higher perspective to understand and learn the development of the industry's current situation and future trends.

### **2.2 School-Enterprise Co-construction of Training Base Model**

One is to “introduce enterprises into teaching” to form the mode of school-enterprise co-training, through cooperation with enterprises and industries, to implement the dual-mentor system to teach students together, and both sides to jointly set up a team of teachers, in the form of appointing visiting professors or lecturers, to participate in the discussion and deliberation of the relevant professional training programs, to set up the curriculum system centered on the enterprises, and design the teaching content around the teaching objectives, so that the college curriculum can keep up with the requirements of the enterprises in future development. Design the teaching content so that the curriculum of the college can follow the requirements of enterprises and future development. For example, the College of Hot Spring Management has reached a school-enterprise cooperation agreement with off-campus enterprises to carry out off-campus internship and practical training teaching activities, which provides students with more practical opportunities, helps them better understand the industry and improves their comprehensive quality. The other is the cooperation mode of industry-university-research project. Through the establishment of Hot Springs Management College with the government and enterprises, we integrate the resources of the three parties into the teaching process, jointly cultivate applied talents for the hot springs industry and even the recreation industry, promote the integration of industry-academia-research, and provide support for the enrichment of hot springs tourism patterns and industrial development.

### **3. Problems in the Construction of Training Bases**

#### **3.1 Insufficient Coverage of Specialties Remains a Major Bottleneck in the Construction of Practical Training Bases**

Under the strategy of Healthy China, the development of China's core recreation industry has entered the fast lane. Closely following the needs of economic and social development in Guangxi, the east integration demonstration first and the Guangdong-Hong Kong-Macao Greater Bay Area and other major strategies, local colleges and universities continue to deepen the integration of industry and education in the process of transformation and development, mainly in the training of applied talents, professional construction and development, and cooperation between schools, governments and enterprises. Among them, school-enterprise cooperation to build training bases provides a better practice platform for colleges and universities in realizing professional talent training. In recent years, Hezhou University has actively promoted the integration of production and education and school-enterprise cooperation, and has established cooperative relationships with many tourist attractions, hotel enterprises and governmental organizations, and the number of co-built training bases has been steadily increasing, providing students with abundant internship and practical training opportunities. However, during the field visits to the cooperative enterprises, it was found that there are still some problems in the construction of the current industry-education integration training bases, especially in the professional coverage. Taking the training base jointly built with a hot spring resort as an example, the base mainly focuses on the needs of tourism management and hotel management majors, focusing on providing immersive real-life scenic, practical and field teaching for students of these two majors. Although this model has certain advantages in terms of professional relevance, it also reveals obvious limitations: the function of the practical training base is too single, and the fusion and integration with other majors is neglected. For example, for recreational sports majors, the resource utilization rate of the training base is extremely low, failing to fully meet its internship training needs; how to effectively integrate public tourism, sports and leisure management majors in the base to carry out practical training, but also failed to incorporate into the training base training program. The reason for this is that, on the one hand, there is a lack of effective communication and exchanges between different majors, and a lack of cross-fertilization in the design of daily teaching activities and practical training programs, which leads to each major "doing its own thing". On the other hand, enterprises are also narrow in the positioning of the use of training bases, focusing only on meeting the cooperation needs of a particular specialty, and failing to plan and design from a broader cross-specialty perspective.

#### **3.2 Failure of Training Bases to Give Full Play to Multiple Functions in Collaborative Education**

In the process of formulating industrial chain development planning, government departments should not only plan the layout of the industrial chain in a coordinated manner and improve the transformation and upgrading of the industrial chain, but also consider the integration of industry and education to promote the in-depth cooperation between schools and enterprises, so as to realize the win-win situation of the development of the local economy and the goal of collaborative education in colleges and universities. There are differences between liberal arts majors and science and engineering majors in terms of school-enterprise cooperation in building practical training bases. At present, the main form of school-enterprise cooperation in practical training arrangements, unified organization by the colleges to arrange the arrangement of junior or senior students to the relevant school-enterprise cooperation units to carry out centralized internship practice, in the design of the content of the internship, generally covering vocational skills, vocational literacy and career development planning, etc., the duration of the internship ranges from 3-6 months, the end of the internship by the internship unit in conjunction with the student's performance during the internship to evaluate, the student At the end of the internship, the internship unit evaluates the students' performance during the internship, the students return to the school, and the enterprise continues to wait for the arrival of the next batch of interns, thus creating a "window period" in the real training base. At the same time, through the visit to the relevant industry-teaching integration training bases, it is found that since the student internship program is formulated by the professional teaching and research department in accordance with the

relevant requirements of the professional talent training program, there is a gap between the specific internship content arrangements and the actual requirements of enterprises. The industry chain is long and covers a wide range of areas, due to the students in the freshman and sophomore internships before the main focus on the theoretical level of learning on campus, fewer opportunities for practice, a lack of understanding of the business of the relevant enterprises, the internship period for the understanding of the specific work tasks is more rushed, work on the work of self-confidence, the enterprise needs to spend more time and energy to guide the students, in the long run, it is easy to cause insufficient motivation to participate in the enterprises, the role of industry-teaching integration and the construction of a common practical training base The role of industry-teaching integration and the construction of training bases is just a formality.

### **3.3 The Fit Between the Training Base Talent Training and the Demand of the Industrial Chain Is Low**

The purpose of integrating the industrial chain into the industry-teaching integration training base is to deepen the industry-teaching integration and promote the collaborative participation of schools and enterprises in talent training to improve the quality of talent training, so as to realize a high degree of matching between the demand for talents and the supply of talents, and to adapt to the social changes and serve the economic development. Take the recreation industry as an example, the recreation industry covers a wide range of aspects, including pension, medical care, sports, health care, tourism and so on. It can be seen that the recreation industry chain is a comprehensive industry cluster, involving leisure and vacation, pension and health care, health care, sports and recreation and other areas of industry. From the perspective of recreation market demand, consumers pay more attention to the travel environment, service experience, sports recreation, ecological culture and other contents. Therefore, around the recreation industry school-enterprise cooperation to build a training base, the need to focus on the recreation industry chain formed in the specific chain organization talent demand training. Combined with Hezhou University's current school-enterprise cooperation to build a training base situation, the school and enterprise reached an agreement to sign an agreement to hang a sign, aimed at combining disciplinary advantages to promote the integration of industry and education, improve the quality of talent training, and serve the development of the local industry, but there is a lack of development of practical training projects related to the recreation and culture industry chain, the industry group and the job group can not be closely articulated, and the students have a more one-sided mastery of the knowledge related to recreation and culture industry, and they have a better understanding of the industry. Recreation training base internship practice process is easy to stay in their respective areas of expertise “on paper” , with the help of training bases to convert the knowledge learned into specific work practice experience is insufficient, the students are prone to stereotyped cognition of the training base, the results are not obvious.

### **3.4 Training Bases Are Ineffective in Transforming the Results of Dual-Creation Competitions**

Dual-creation competition is a crucial content in the process of talent cultivation in colleges and universities, which integrates theoretical knowledge learning, on- and off-campus practical application, innovation and entrepreneurship development, etc. [3], aiming to promote the practical training teaching mode of “promoting learning, practicing, and teaching by competition” and the integration of school-enterprise cooperation bases and symbiosis. Academic competitions are usually organized by schools to consider the comprehensive application of students' theory to practice, practical ability, innovation ability and other aspects. Through visits to students, we know that most of them are not enthusiastic about participating in academic competitions, the main problems are that they don't know how to generate projects, they don't know about the enterprise industry, and they are busy with their professional courses for a long time on campus, so they have fewer chances to go out to the enterprises for research, communication, and practice. Take “Internet+” Innovation and Entrepreneurship Competition for College Students as an example, Hezhou University has created “Culture and Tourism+Sports” , “Culture and Tourism+Research” , “Recreation and Nurture+Leisure” and other projects. Leisure” and other projects, based

on professional advantages, the formation of student teams, mining characteristics of the project, while taking into account the professional basis of each member of the project team, from the beginning of the establishment of the project, the team of students need to participate in the project with the design of the project content, financial calculations, the project demonstration and marketing to carry out the interdisciplinary field of knowledge, due to the fact that students did not participate in real The scenario of enterprise operation, students can not contact the outside enterprise, enterprise mentor due to their own work, also lack of systematic guidance, students can not these areas of book knowledge into practical use, the utilization rate in the project is not high, resulting in the results of the competition can not be effectively converted into school-enterprise cooperation practical training teaching cases, and so on. Comprehensive view of the existing problems, for the solution of the problem, but also need to rely on school-enterprise cooperation to build a training base, and further play the training base of the enterprise business process of the various resource advantages, to help the output of the results of the disciplinary competition, and then form the results of the teaching to promote the formation of school-enterprise synergy, and complement each other's shortcomings.

#### **4. Countermeasures to Enhance the Quality of the Construction of Practical Training Bases through “Three-chain” Synergy**

##### **4.1 Strengthening Cross-linkages and Promoting the Expansion of Training Bases into Multidisciplinary Fields**

Industry-teaching integration and collaborative education can help to improve the cultivation quality of new business composite talents in applied undergraduate colleges and universities, and the construction of school-enterprise cooperation to build a practical training base model is a systematic project [4], which should fully consider the benefit of the practical training base in the process of using it, and improve the participation of the two sides of the school and the enterprise in the process of practical training. Combined with the employment needs of enterprises, through the design of practical training projects, from the formation of faculty teams, practical training link design, etc., to break the traditional practical training mode dominated by a single specialty in colleges and universities, to increase the cross-linkage between majors and specialties, and to realize the inter-specialty sharing of practical training resources. First of all, in the integration of teachers, the formation of inter-professional teachers team, with the help of training base enterprise resources, around the training project will be different professional training programs and training needs for the integration of design, teachers from the original passive implementation of the professional training program arrangements, into an initiative to break through the professional limitations, thinking about how to improve their own level so as to better serve the training project, in this process, but also the teachers themselves to get the opportunity to learn and grow. In the process, it is also an opportunity for teachers to learn and grow. Secondly, in the design of practical training sessions, combined with the real production and operation activities of enterprises, for the needs of different business work, the work content will be split into practical training sessions, so as to provide students of different majors with the opportunity to get cross-combat in practical training, accumulate cross-specialty knowledge and skills, and improve the degree of employment suitability through practical training, thus realizing the win-win situation of improving the quality of talent cultivation in colleges and universities and meeting the needs of employers in the enterprises.

##### **4.2 Deepening the Teaching and Practical Training Linkage Mechanism to Boost the Construction of Practical Training Bases**

With the continuous adjustment and optimization of industrial structure, the social demand for talents increasingly emphasizes the combination of theoretical knowledge and practical ability, and requires talents to keep pace with industrial development. As an important platform for promoting the integration of industry and education, the practical training base should further strengthen cooperation and communication. Through the integration of on- and off-campus practical training resources, to build universities, enterprises, industry, the tripartite coordination of practical training management mechanism, to ensure that the content of practical training throughout the entire process of student training, to achieve the depth of the role of all parties to the integration, so as to effectively avoid

the school-enterprise cooperation, “lack of strength” problem. To this end, schools and enterprises can rely on the resources of the training base to build a “dual tutor” team. On the one hand, college teachers and enterprise tutors jointly undertake the students' professional knowledge theory and practical training practical teaching tasks. Starting from the first year of college, around the students' career planning, to realize the systematic teaching of basic theoretical learning and practical internship training courses of “enterprise training” . On the other hand, with the help of the training bases jointly built by schools and enterprises, we promote the in-depth development of teachers' resources. Arrange teachers on campus to work or reside in enterprises, participate in enterprise projects, carry out research with enterprise teams, jointly formulate technical routes and programs, and promote the transformation of results. In this way, the advantages of practical training bases in resource sharing are maximized to truly serve the needs of the deep integration of industry and education and the collaborative development of schools and enterprises.

#### **4.3 Relying on the Advantages of the Industrial Chain to Improve the Quality of Personnel Training in Colleges and Universities in an All-round Way**

The training base can effectively integrate educational resources and industrial resources, and build a direct bridge between university talent training and industrial development. This model not only gives students the opportunity to gain an in-depth understanding of industry-related business operations during their school years, but also closely integrates the learning process with practice, accumulates valuable practical experience for students, and promotes the realization of mutually beneficial symbiosis and sustainable development of both schools and enterprises in the “industry chain” . Take the recreation industry chain as an example, it covers many fields such as recreation tourism, sports and leisure, pension and health care, etc., and there is a growing demand for professional talents. Through the in-depth integration of industrial colleges and industrial chain, on the one hand, we can accurately tap the talent demand of the industrial chain, and build the “order class” talent cultivation mode of schools and enterprises, so as to directly connect the on-campus talent cultivation with the talent demand of the industrial chain outside the school. For example, for the field of recreation and tourism, the opening of a special “order class” , tailor-made curriculum system for students to ensure that they can quickly adapt to the relevant positions after graduation. On the other hand, closely connecting with the enterprise talent demand and job groups in tourism, sports, public administration and other professional fields, we optimize the design of practical training course system to improve the matching degree of its competency with the relevant positions in the industrial chain, so as to achieve the goal of “one-step to the job” that students are employed upon graduation and deepen the cooperation of school-enterprise co-built practical training bases. In addition, in terms of the construction of the faculty team, a high-level “dual-teacher” team is built around the recreation industry chain, and teachers with both profound theoretical knowledge and rich practical experience are absorbed to meet the demand for structured teacher talents in the practical training bases of school-enterprise cooperation. This mode of faculty construction not only improves the quality of teaching, but also provides students with teaching content closer to the actual industry, which further promotes the in-depth development of industry-education integration.

#### **4.4 Accelerating the Transformation of the Results of the Competition Chain to Help the Joint Development of Schools and Enterprises**

Training bases are of great significance in promoting disciplinary competitions in colleges and universities. By integrating enterprise resources, the training bases can provide students with practical training programs that simulate the competition environment, so that students can exercise their abilities in near-real scenarios. At the same time, students are encouraged to actively participate in high-level competitions such as “Internet+” competition, “Challenge Cup” , “Three Creation Competition” , etc., so that they can practice their abilities in the near-real scenarios through the way of “real projects and real work” . Through the way of “real projects and real work” , students combine theoretical knowledge with practice to improve their innovation and entrepreneurship ability. Under the framework of university-enterprise cooperation, both parties can provide all-round support for the

participating students, including project funding, technical guidance, venues and equipment, etc., to help students better understand and apply what they have learned in a real enterprise environment, and improve their ability to solve practical problems. By deepening the integration of production and education, giving full play to the leading role of discipline competitions, constructing a “competition chain”, relying on the practical training bases jointly built by schools and enterprises, and focusing on the concept of “promoting learning, practicing and teaching by competitions”, we have developed special courses that integrate discipline competitions training, professional theory and enterprise practice. We develop special courses that integrate disciplinary competition training, professional theory and enterprise practice in depth. In addition, mobilizing students to actively participate in competitions not only enhances the breadth and depth of learning, but also strengthens the challenge of learning. Encourage students to participate in high-level discipline competitions and scientific research training to cultivate their innovative thinking and practical ability. Schools and enterprises can jointly carry out in-depth cultivation and incubation of students' outstanding innovation and entrepreneurship projects, promote the transformation of the projects from creativity to practice, and then realize the win-win situation of economic and social benefits. In this way, school-enterprise cooperation to build a training base not only provides a practical platform for students, but also injects new vitality into the university discipline competition and promotes the deep integration of education and industry.

## 5. Conclusion

Through the deep integration of education chain, industry chain and innovation chain, the “three-chain synergy” model organically combines talent cultivation, industrial development and innovation drive, enriches the connotation of industry-education fusion, provides a new perspective for the in-depth cooperation between colleges and universities and enterprises, highlights the leading role of industry chain, promotes the synergistic development of the education chain and innovation chain, and realizes the seamless connection between the cultivation of talents in colleges and universities and the development of industries. industrial development. At the practical level, colleges and universities realize the in-depth integration of the education chain and the industry chain through training bases, share cross-disciplinary practical training resources, balance the needs of professional development, and improve the practical ability and comprehensive quality of students. At the same time, the “three chains” synergistically promote the transformation of the results of the “competition chain” to serve the development of industry. Universities and enterprises jointly support students to participate in high-level competitions and scientific research training, promote the incubation of innovation and entrepreneurship projects, and jointly optimize the construction and management of training bases, introduce real projects of enterprises, and improve the practical ability and comprehensive quality of the training bases. Jointly optimize the construction and management of training bases, introduce real projects from enterprises, and enhance the demonstration and radiation effect of training bases. The “three-chain synergy” model provides an innovative theoretical and practical path for the construction of industry-education integration training bases, promotes the development of industry-education integration to a higher level, and helps local economic and social development.

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