

An Exploration of Construction and Management Mode of Practice Teaching Bases in Local Application-Oriented Universities Based on the Purpose of Collaborative Education

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Abstract. The integration of industry and education and collaborative education is an important way for application-oriented universities to achieve high-quality development and cultivate innovative talents. The off-campus practice teaching base is no longer just a place for students to practice and train. Universities and Businesses should expand cooperation fields, innovate cooperation modes and enrich cooperation contents on the basis of the original cooperation, jointly cultivate innovative and applied talents, and comprehensively improve the quality of talent training. Taking Shandong Management University as an example, this paper discusses the measures taken in optimizing the construction and management of practice teaching bases and the innovation of collaborative education mode, and summarizes the results of cooperation.

Keywords: Collaborative education; practice teaching base; optimization measures; cooperation effect.

1. The necessity of implementing the integration of industry and education in local application-oriented universities

In 2018, the Ministry of Education held a symposium for the first time for local application-oriented universities, which put forward "guide the newly-built universities to adhere to the development of local application-oriented university, aim at service domain, closely revolve around applied talents training, and highlight cooperation in running schools, education, employment and development" [1]. Therefore, training applied talents with profound theoretical knowledge and skilled business skills has become the mission entrusted by the New Age to local colleges and universities, which is an urgent requirement for local universities to adapt to social transformation and development and serve national and local major development strategies. The Outline of the National Medium - and Long-term Program for Scientific and Technological Development (2006-2020) clearly states that "we should adhere to the combination of production, education and research, encourage and support institutions of higher learning to establish multi-channel and multi-form close cooperation with enterprises and research institutions, jointly train innovative talents and jointly carry out innovative activities"[2]. "We will support enterprises to set up internship and training bases for students in institutions of higher learning and vocational schools"[2].

The cultivation of applied talents needs to prompt students to transform and apply knowledge quickly in their work. Colleges and universities need to use the open mode to put students in a more real social environment and keep close contact with enterprises, scientific research institutions and industrial organizations extensively [3]. Therefore, the cultivation of applied talents must take the cooperation of industry-university-research as a breakthrough, strengthen the integration of industry and education, and pay attention to the improvement of students' practical innovation ability and comprehensive quality. Under the new situation, the practice teaching base is no longer just a place for students to practice and train, but also an important platform for improving students' practical and innovative ability. Practice teaching bases must deepen roles in time, broaden areas of cooperation, innovate cooperation mode, enrich the content of cooperation, jointly develop innovative and applied talents, and comprehensively improve the quality of personnel training to

fundamentally solve the problem of disconnection between school education and social needs, enhance students' social competitiveness, and give full play to the function of colleges and universities in serving local economic and social development [4].

2. Measures taken to optimize the construction and management of practice teaching bases

Shandong Management University (SDMU for short) follows the developing trend of higher education reform and establishes the school orientation of being local and application-oriented, according to the tradition, the construction situation and development opportunities. To cultivate high-quality applied talents with outstanding practical ability, SDMU strengthens resources integration, constantly improves collaborative education mechanism and adopts a series of specific measures, which finally promote extensive and in-depth cooperation with industry and enterprises.

2.1 Optimize management system and strengthen standardized construction

The standardized management system is a good guarantee for carrying out cooperation with the bases, and doing well in resource management, project management, teachers and students management, information and archives management, quality control, etc [5,6]. The university has issued a series of institutional documents, such as The Implementation Opinions on Strengthening Industry-University-Research Cooperation Education, Implementation Opinions on Strengthening School-Local Integration and Promoting High-quality Development of the University, Management Measures for School-Enterprise Cooperation, and Construction and Management Measures for Practical Teaching Bases. The cooperation conditions, cooperation objectives, cooperation content, base examination and approval procedures, management responsibilities, information and archives arrangement requirements, safeguard measures, etc., are specified, and each base is required to establish teaching files, strengthen standardized construction, and constantly improve management level and quality.

2.2 Attach importance to top-level design and ensure organizational support

SDMU continually perfects the industry-university-research cooperative education organization system of the university and the secondary college, forming a work pattern and resultant force of "unified leadership of the school, division of labor and cooperation of departments, and implementation of secondary colleges". The university has set up a leading group for industry-university-research cooperation education, headed by the president and composed of heads of various functional departments and secondary colleges, to explore the establishment of industry-university-research cooperation joint meeting system and strengthen the overall planning and coordination of industry-university-research cooperation. Each secondary college is responsible for promoting and implementing the specific work.

2.3 Clarify development requirements and promote in-depth cooperation

In line with the idea of basing on the local, integrating into the local, serving the local and focusing on the "top ten" industry in Shandong Province, each major is required to establish at least 1-2 bases, and carry out in-depth cooperation around the "six aspects and a mode", namely, co-education of students, co-construction of majors, co-construction and sharing of courses, co-training of teachers, collusion in employment, joint research of projects and innovation mode. At the same time, SDMU strengthens the training of teachers and pays attention to the construction of double-qualified and double-capable teacher teams. Management measures for teachers to practice training in enterprises was issued to encourage teachers to industry enterprises and the state organs for not less than half a year's practice, which finally improve teachers' production practice, science and technology development and educational practice ability, and at the same time provide strong support and talent guarantee for the local economic development. Moreover, specific task

requirements are put forward for the teachers who go to the enterprise to practice. Upon the expiration of the practice period, the school will assess the teachers according to the completion of the task and store the teachers' files.

2.4 Reform assessment and improve incentive mechanism

SDMU improves the evaluation and incentive mechanism of the industry-university-research institute, incorporate the effect of in-depth cooperation with the bases into the annual work assessment index system of each secondary college, and take the effectiveness of teachers' participation in the enterprise training and cooperative education as one of the important assessment indicators. SDMU reforms the evaluation system for scientific research achievements and their transformation, improves the evaluation index system for scientific research achievements and their transformation oriented towards horizontal research, applied research and serving the public interest, and effectively promotes the application and transformation of scientific research achievements. SDMU improves the policy for evaluating professional titles, and perfects the professional title evaluation system in favor of teachers and administrators who have made remarkable achievements in industry-university-research cooperative education, so as to fully mobilize the enthusiasm of the staff in carrying out industry-university-research cooperative education.

3. Cooperative effect

3.1 The number of bases has increased significantly to meet the needs of students' practice and training

Under the policy guidance, organization guarantee and various incentive measures of the school, The Teaching Affairs Office took the lead in actively docking with local industrial parks and other enterprise clusters and established the first-level practice teaching base development mode of "professions + industrial park", such as Financial Service Center of Li cheng District in Jinan, Mengxiang Town of Changqing District in Jinan, Jinan Economic Development Zone, Fenghuang Mountain Industrial Park. Nearly a thousand internship and training positions were supplied for students to practice. At the same time, the secondary colleges established 124 second-level practice teaching bases with enterprises and institutions to accurately connect various majors and meet the needs of students' practice and training. In the 2020-2021 school year, the off-campus practice teaching bases have accepted 5693 students, an increase of 39.8% year-on-year. More than 90% of enterprises have high satisfaction with our students. They think that the comprehensive quality of the students in our school is higher than that in similar colleges and universities, and their practical application ability is better.

3.2 Breakthroughs have been made in joint construction of professional resources, and the cooperation has achieved good results

All majors have introduced experts from industrial enterprises to participate in the construction of majors, and carried out in-depth cooperation from the revision of talent training programs, curriculum construction, practical teaching, teacher training, employment and entrepreneurship, etc. Nine School-enterprise cooperation majors have been established in cooperation with Shandong Inspur, Jinan Dasen, Qingdao Qingruan and other enterprises. From 2019 to 2021, 140 industry-university cooperative education projects initiated by the Ministry of Education were declared. There are 14 laboratories and institutions jointly developed by the university and enterprise, 70 course resources jointly developed, and 49 courses jointly taught.

3.3 "Please come in and go out" is carried out simultaneously, and the effect of education is outstanding

SDMU actively introduced resources from the cooperation bases and gave full play to the advantages of the labor union, hired 53 "model workers" and "the great craftsman of Qilu" as moral education and practice mentors, and held various activities such as "Finance Director Forum", "Craftsman into campus" and "Entrepreneur into campus". A group of experienced, outstanding technical backbone were selected and hired as instructors to jointly carry out graduation thesis guidance, develop the graduation internship plan, and guide the assessment of students. In the past three years, the university and enterprises jointly supervised 823 graduation theses and 13,939 students' practice and training. The internship performance of the students was highly recognized by the enterprises, and 379 students have got jobs in the internship enterprises from 2020 to 2021. In the past three years, 83 teachers have applied for "going out" to practice in enterprises, which not only enriched the case teaching content, but also broadened their vision, updated the teaching concept, and laid a solid foundation for comprehensively improving the quality of applied talents training.

3.4 Teachers and students help local economic development, and the society responds well

At present, SDMU has signed cooperation agreements with 19 local government agencies and labor unions to cooperate in e-commerce poverty alleviation, cloud services, rural revitalization construction, cultural and creative product development, big data management and other aspects to serve the local economic and social development, and has received good social response. Especially e-commerce professional teachers and students in our school help many villages and towns set up "taobao village", use e-commerce projects to target poverty alleviation and broaden the channels for agricultural products sales, which have effectively solved slow-moving problem of the local government and business. A variety of agricultural and sideline products have been turned from "unsalable" to "out of stock", which has solved many farmers' difficulties in producing agricultural products and effectively boosted rural revitalization.

4. Summary

The university always actively explores the integration of industry and education, and has achieved certain results. However, the development of various majors is not balanced. Engineering, management and art majors are relatively well developed, while literature majors have not fully exploited their resource advantages to meet the needs of industries and enterprises. Teachers' awareness of applied research is not strong, and their ability to learn, apply and transfer new technologies is weak. There are few high-level projects and high-quality achievements in line with local economic and social development prospects and scientific research trends in disciplines. The adoption rate and conversion rate of teachers' scientific research achievements are low, industrialization is insufficient, the advantage of attracting enterprises to participate in cooperative education is not prominent, and the development and utilization of social resources need to be strengthened. In the future, SDMU will strengthen the study and practical exploration, and change teachers' ideas. By means of study and discussion, experts' report and on-the-job exercise, teachers' educational ideas should be updated to enhance the enthusiasm and initiative of promoting industry-university-research cooperation. SDMU will actively explore the implementation path of industry-university-research cooperation education focusing on humanities and social science majors, and make full use of high-quality resources of enterprises and industries to improve the quality of applied talents training. At the same time, the university will give full play to the talents and professional advantages of the school, guide teachers to take the production demand of enterprises as an important source of scientific research topics, carry out collaborative innovation centering on the key issues of industrial technological innovation, and promote the transformation and application of applied scientific research achievements.

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References

- [1] Information on: http://edu.cnrcn/list/20190226/t20190226_524522868.shtml
- [2] Information on: http://www.gov.cn/gongbao/content/2006/content_240246.htm.
- [3] Guosheng Chen, Jian Kang, Xin Tang. Research on Training Mechanism of Application-oriented International Business Talents in Local Undergraduate Colleges- Based on an Empirical Analysis of "Industry-University-Research-Application" Education Platform [J]. Journal of Xingtai University. Vol.30 (2015) No.3, p.183-185.
- [4] Guolin Guo, Chenshuo Cui, Wenmin Ou, et al. Research on the Training of Applied Talents in Material Forming and Control Engineering major of Local Undergraduate Universities [J]. Science and Education Literature Collection. Vol.10 (2021) No.4, p.74-75.
- [5] Zhi Yang. The Current Situation, Difficulties and Suggestions for the Development of Industry-University-Research Cooperation in Universities - Based on the Survey of 95 Universities [J], Journal of National Institute of Education Administration, Vol.10 (2019) No.6, p75-80.
- [6] Sanhu Fang, Yongliang Zhang, Qingmei Xie. Reform and Practice of Application-Oriented Talents training in Universities from the Perspective of Collaborative Education [J], Laboratory Research and Exploration, Vol.35 (2016) No.4, p.219-222.