

Research on The Construction of Specialty Clusters in Application-oriented Colleges under The Integration of Production and Education

Liang Wang

Liaoning Communication University, Liaoning, 110136, Shenyang, China

Keywords: Integration of production and education; Specialty clusters; Application-oriented college

Abstract: In recent years, the national level has clearly put forward the construction of professional clusters as an important content of the transformation and development of local ordinary undergraduate universities, and application-oriented universities have carried out the exploration of professional cluster construction. By analyzing the main problems in promoting the construction of professional cluster in applied colleges and universities, the author puts forward the methods to accelerate the construction of professional cluster in order to achieve the value dimension of professional cluster construction.

Specialty cluster is an important breakthrough in the transformation and development of application-oriented colleges and universities under the background of the integration of production and education, and a strategic choice for the optimization of specialty structure and the adjustment of specialty layout. In recent years, the state has successively issued relevant documents on promoting the construction of professional clusters in application-oriented colleges and universities, clearly proposing that the construction of professional clusters should be an important part of the transformation and development of local ordinary undergraduate colleges and universities, and an important starting point for implementing the construction plan of high-level higher vocational schools and majors with Chinese characteristics. The provinces and municipalities have specially deployed the construction of professional clusters or deployed together with the transformation and development and the "double first-class" construction. Guided by the government and promoted by policies, application-oriented colleges and universities have explored the construction of professional clusters. Application-oriented undergraduate major aims to cultivate application-oriented high-quality talents that meet local needs. Practical ability is the core ability of application-oriented undergraduate students. To improve students' practical ability, school-enterprise cooperation is needed.

1. Introduction

The integration of production and education has become a new means to improve the training of relevant professional knowledge and ability of application-oriented undergraduates. Under this background, the construction of professional groups should also explore a new mode of talent training. Based on the local economy of Liaoning province, this paper analyzes the necessity and shortcomings of the construction of relevant professional groups, explores the school-enterprise cooperation mode and long-term co-construction mode, in order to provide references for the construction of other undergraduate professional groups. It is urgent to seek effective methods and countermeasures.

2. The main problems in promoting the construction of professional clusters in application-oriented colleges and universities at present

2.1 Lack of understanding of the complexity and systematicness of professional cluster construction

The main manifestations are as follows: the theoretical understanding of the professional cluster

is vague, and the idea and measure of the top-level design for the promotion of the professional cluster are lacking; Lack of research and exploration on the planning, layout, construction, operation, guarantee and evaluation of specialized clusters; Some colleges and universities think that professional cluster is a matter of teaching lines and professional leaders, without overall planning, top-level design and top-down promotion from the school development level. Some colleges and universities have not conducted research and analysis on professional clusters, and there are obvious problems in the guiding opinions or implementation plans. Some college leaders, middle-level cadres and professional leaders have a "wait, rely, want" mentality, one-sided emphasis on the ripe time, conditions to carry out construction, or simply copy the practice of other schools, and so on.

2.2 Professional cluster construction vision is not broad

The Judging from the current situation of professional cluster construction in application-oriented colleges and universities, it is still in the initial stage on the whole, and the promotion of cluster construction is limited by inadequate ideological understanding, limited by the incomplete study and research of leaders of some colleges and universities, business departments, and leaders of secondary schools and departments, and influenced by traditional thinking sets and existing practices, the promotion of professional cluster has not broad vision and broad ideas, which are embodied as follows: The perspective of professional cluster construction is limited to more school perspectives, more teaching perspectives, and more professional perspectives of certain disciplines, but less consideration is given from the overall development strategy of the school or even from the perspective of the integration of industry and education, and less consideration is given from the perspective of multi-disciplinary or interdisciplinary professional fields. There are few extensive, sufficient and in-depth researches on stakeholders such as government industries related to professional clusters, etc.

2.3 Lack of innovation in the construction of professional clusters

In view of the current development status of application-oriented colleges, the construction of major clusters is a new strategy, new thinking and new path for the optimization and adjustment of the professional structure of application-oriented colleges and universities. A small number of application-oriented colleges and universities are in the initial stage of exploration, and most application-oriented colleges and universities are preparing to push forward, and there is no ready-made experience and mature model. Lack of innovative top-level design of talent training, no talent training program matching with professional clusters; There is a lack of innovative applied curriculum system, no course system or course group or course module that can support the construction of professional clusters and exert the effect of cluster construction, and no transformation from form layout to connotation construction of professional clusters has been realized.

2.4 In the course group construction, the professional characteristics are not manifested

To build "an application-oriented university with distinctive characteristics" or "an application-oriented university with high-level characteristics" is the vision and goal of all application-oriented colleges and universities. However, there is no plan, no research, and no clear action plan for the cultivation of characteristics. Some colleges and universities lack the guidance and encouragement from local education authorities. Some colleges and universities regard the construction of professional clusters and the cultivation of school running characteristics as two independent tasks, and do not plan, organically integrate and jointly promote the construction of professional clusters and the cultivation of school running characteristics from the overall development of school cause.

3. Accelerate the construction of professional cluster methods and strategies

3.1 Enhance the understanding of professional cluster construction

First, fully understand the significance of professional cluster construction to the development of application-oriented colleges and universities. Professional cluster construction is a strategic choice of professional structure adjustment and professional construction in application-oriented colleges and universities, which can solve the problem of structural contradiction of higher education majors, meet the needs of connotation construction of higher education in the new era, echo the trend of modern industrial agglomeration development, and highlight the transformation and development of local undergraduate colleges and universities.

Secondly, do a good job in promoting the overall design of professional cluster construction. The construction of professional clusters should consciously obey and serve the strategic goals of the overall development of the school, plan and move forward, and avoid "sandwich" or "rework". Both the provincial level and the school level should make plans and implementation plans, and become documents that can guide the work of secondary units, so that the process of developing and demonstrating guiding opinions or implementation plans can truly become a process of unifying the ideological understanding of cadres and teachers in the whole school.

Thirdly, strengthen the study of professional cluster theoretical knowledge. From the theoretical study, we should renew the concept and enhance the consciousness of the cadre teachers to carry out and promote the construction of professional clusters.

Fourthly, by using the cluster promotion strategy combining gradual cultivation, application-oriented colleges and universities can determine the key construction and cultivation of professional clusters according to the school situation.

3.2 Expand the thinking breadth of professional cluster construction

Professional clusters emphasize local, docking but not limited to local industrial clusters, if the local industry is underdeveloped or has not formed a cluster, you can first focus on gathering the backbone enterprises in some industries, but also can expand the docking cooperation perspective to the region, the province or even outside the province.

3.3 Innovative measures to build quasi-professional clusters

Some colleges and universities have taken the lead in making innovations. Jiangxi Institute of Fashion Technology relies on the key disciplines of Fashion design and Engineering in Jiangxi Province and the majors of Fashion Design and Fashion Design and Fashion Design and Engineering ranked first in the comprehensive evaluation of undergraduate majors in Jiangxi Province. With seven professional groups of clothing design, clothing e-commerce logistics, clothing marketing management, clothing information technology and intelligent manufacturing, fashion media, cultural and creative design, and environmental art design, we closely connect the industrial chain of clothing design, production, management and marketing. Corresponding to fashion design, fashion design, fashion plate making, fashion craft, fabric design, production management, fashion performance, fashion marketing, fashion display and other professional job groups, to form a professional cluster structure and layout that connects and serves the large fashion industry and fashion industry cluster, gathering all disciplines and specialties of the school, with distinct industry characteristics. Chongqing University of Science and Technology builds core majors according to the main positions of each sector of the industrial chain, and forms a disciplinary professional cluster.

The construction of professional clusters must improve the construction and development mechanism of professional clusters with docking industries, dynamic adjustment and self-improvement, and establish and improve the sustainable development guarantee mechanism of multi-party coordination of professional clusters. Based on the implementation of the form layout and connotation construction of the professional cluster and the implementation of the top-level design and target strategy of the school, the school-running system that conforms to the application-oriented orientation is reorganized. At the same time, it is necessary to organize the re-development or revision of the talent training plan of each professional in the cluster, and clarify the professional training objectives, graduation requirements, curriculum system, teaching staff, platform conditions, and quality assurance requirements. In particular, it is necessary to clarify the

shared course platform, experimental and practical training platform, scientific research and innovation platform, professional characteristics cultivation direction and student ability training requirements of each professional in the cluster. Therefore, the construction of curriculum system is the key to professional construction, and the construction of professional cluster should be implemented through the curriculum group based on the specialties in each group.

4. Achieve the value dimension of professional cluster construction

Firstly, to improve the level of professional construction through the key development strategy of professional clusters, build high-level application-oriented colleges with strong supporting role for regional and industrial development, realize the transformation and upgrading of regional industrial clusters through professional cluster talent training, and enhance the contribution to regional economic and social development by improving the talent supporting ability and regional service ability.

Secondly, promote the growth of students and enhance the fit degree of professional cluster talent training. High-level professional clusters often have the characteristics of high degree of fit between professional setting and industry, high level of professional teachers, high ability of professional service to society, high enrollment rate of major, high employment rate of major and high quality of talent training. From the perspective of students, the formation of professional cluster advantages can promote interdisciplinary, cross-professional and in-depth cooperation and interaction with industry, promote first-class professional construction and undergraduate teaching, improve the level of professional construction, and expand and extend the space of students' future entrepreneurship and employment based on professional.

Thirdly, promote the joint development of schools and improve the efficiency of professional cluster resource allocation. Professional cluster is the top-level design for optimizing resource allocation of schools. To optimize resource allocation, we must first have a scientific and reasonable layout and structure of professional cluster, so as to form a scientific and reasonable allocation of human, financial and material resources of schools and maximize the benefits of various resources.

5. Conclusion

Discipline cluster has become a new paradigm of discipline construction in application-oriented colleges and universities, a new path for the transformation and development of application-oriented colleges and universities, and a new requirement for the integration of production and education in application-oriented colleges and universities. Under the background of the integration of industry and education, how to construct high-level professional groups with characteristics? This is an important subject facing the applied undergraduate field. The author believes that the construction of specialty groups with provincial or national characteristics should be the axis, the integration of production and education should be the link, and the radiation should be extended to other related majors, so as to promote the coordinated integration and development of all professional groups in the school. The prospect of future professional group research is as follows: (1) Research on the mechanism and logic of professional group construction. Study the correspondence between professional groups and industrial chain, adopt "one to one", "one to many" and "many to one" to connect industries, and formulate the direction of professional group formation; Strengthen the research of high-level professional groups with higher vocational characteristics, and explore the group logic of connecting different industries (clusters) of high-level professional groups with higher vocational characteristics under the background of integration of industry and education. Analyze the logical relationship and basic context between professional group, industrial cluster, occupational post group, etc. (2) Research on standards and indicators of professional group construction. Based on the premise of the integration of production and education, and grasping the two keywords of "characteristic" and "high level", the paper discusses a series of construction standards such as the curriculum system, teacher team, teaching resource library, teaching implementation, and performance evaluation for the characteristic high-level

professional groups of higher vocational colleges in different industries (clusters), so as to build a dynamic development assessment index system. (3) Research on the model and path of professional group construction. By referring to the industrial cluster theory and focusing on the three elements of "structure, resources and mechanism" of professional groups, this paper deeply discusses the logic and construction mechanism of high-level professional groups with characteristics of different industrial types (clusters) under the background of the integration of industry and education, proposes the construction model and construction path, promotes the special, high-level, high-quality and sustainable development of professional groups, and builds the brand of application-oriented undergraduate colleges.

Acknowledgement

This paper is the research result of the general project of the 13th Five-Year Plan of Education Science in Liaoning Province in 2020, "Research on The Construction of Specialty Clusters in Application-oriented Colleges under The Integration of Production and Education" (project number: JG20DB182).

References

- [1] Chunyan Li. Research on the Development of Practical Ability of College Teachers from the Perspective of Teacher Professional Development, Education University of China[J].2014(5):81-84.
- [2] Qin Tian et al.. Challenges and reflections on the reform and development of higher pharmacy education under the background of "Healthy China" strategy[J]. intelligence, 2020(15):56.
- [3] Chuanhui Xie et al.. Thinking and practice on the improvement of practical teaching ability of teachers in application-oriented undergraduate universities[J]. Journal of Jilin University of Agricultural Science and Technology,2017(1):82-84
- [4] Qi Xing. Research on the current situation and training system of engineering technology ability of teachers in undergraduate colleges and universities with engineering application[J].Journal of Nanjing Institute of Technology[Social Science Edition],2017(1):79-82
- [5] Minghua Zhou. Exploration on the construction of "dual-teacher dual-ability" faculty team in application-oriented undergraduate universities[J],Teacher Education Forum,2019(7):24-27.