

Research on the Construction of Learning Cities Empowered by the Integrated Development of Open Education and Vocational Education

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Abstract. Open education and vocational education boast their own characteristics in terms of education objects, school running and teaching models. And the intersection is the talent training, which boasts complementary advantages in serving the universal lifelong learning and skill society construction and promoting the construction of learning cities. Finally, mutual and coordinated development will be achieved.

Keywords: Open education · Vocational education · Learning city construction

1 Introduction

"China Education Modernization 2035" proposes to pay more attention to the integration and development of all types of education at all levels, pay more attention to co-construction and sharing. According to The National Open University Comprehensive Reform Plan, Open University should "mainly undertake the responsibility of serving the lifelong learning of the whole people in the region, promoting the construction of the open education system in the region and exploring the integrated development of higher education, vocational education and continuing education" [1]. The Action Plan for Improving the Quality and Cultivating Excellence of Vocational Education (2020-2023) proposes that "it is necessary to accelerate the construction of a modern vocational education system with Chinese characteristics that is vertically connected and horizontally integrated, and improve the vocational education system that serves the lifelong learning of the whole people" [2]. "The intersection of open education and vocational education is talent training, which is not only a realistic move to strengthen the country through education, but also an urgent need to build a learning city."

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2 The Integration of Open Education and Vocational Education is Conducive to the High-Quality Development of Learning Cities

To build high-quality learning cities is the continuous value pursuit and action strategy of many countries in the world. The high-quality development of learning cities has played a key role in expanding citizens' learning opportunities, improving citizens' learning abilities and enhancing social inclusion. Both open education and vocational education should assume their respective responsibilities, give full play to their respective functions and advantages, and promote the construction of learning cities.

2.1 The Current Situations, Problems and Analysis of the Integrated Development of Open Education and Vocational Education

There are many models for the integrated development of open education and vocational education. This paper only takes the model of two schools running as the integration, which is used by the open universities and higher vocational colleges on the basis of management system of "two schools with the same group of personnel", as an example for the study. At present, there are at least 27 open universities in Guizhou, Hunan, Liaoning, Ningxia, Jiangxi, Chongqing and other universities that operate higher vocational education in various forms [3]." This mode of running a school can be divided into at least two types: one is the higher vocational colleges and universities represented by Guizhou, Liaoning, Chongqing, etc., which are established under the leadership of the former provincial-level radio and TV universities with the support of the local government; the other is the optimization and integration of local vocational colleges and universities led by the local government represented by Ningxia, Wuhan, Dalian, etc. The latter two-school optimization and integration model is more common in prefecturelevel cities, county-level universities, and radio and TV universities. Although the model of two schools running as the integration is a realistic choice, the effect of many schools in the process of integration practice is not ideal. Hu Wanda et al. "believe that the integration of the two has the phenomenon of external unity and internal division [4]. Song Pu et al. believe that the two are in the stage of "grafting" integration, and there are problems such as lack of understanding and communication between various subjects and a shallow degree of cooperation [5]. The integration of the two schools is not a simple physical merger, the two kinds of education are very different in management policies, talent training models, teaching implementation processes, teacher team construction, etc. Especially, in the cultural and value mutual recognition, it is required to have a long-term process of "running-in". It is feasible and necessary to integrate open education with vocational education in local open universities (radio and TV universities). However, there are many problems, such as "a lack of perfect institutional mechanisms, insufficient integration of theory and practice, low investment, and differences in talent training goals and targets [6]. It is believed that from the perspective of serving the lifelong learning and skilled society construction of the whole people and promoting the construction of learning cities, the integration and development of the two kinds of education is more beneficial than harmful, and the general trend is the trend.

2.2 The Integrated Development of the Two Kinds of Education Provides New Momentum for the Construction of Learning Cities

Since the 18th National Congress of the Communist Party of China, General Secretary Xi Jinping has repeatedly emphasized the importance of building a learning party and learning from a big country. The construction of a learning country needs to be based on the establishment of a learning city, which is an important cornerstone of the development of a learning country, a guarantee for establishing and improving a lifelong learning system and accelerating the modernization of education, and an important part of the global action to implement the 2030 Agenda for Sustainable Development. In 2020, the CPC Central Committee and the State Council continued to emphasize the task of "improving the lifelong learning system and building a learning society" in the "Proposal of the CPC Central Committee on Formulating the 14th Five-Year Plan for National Economic and Social Development and the Long-term Goals for 2035", and the construction of learning cities entered the overall development layout of the national strategy.

In 2020, nine departments, such as the Ministry of Education, issued the "Vocational Education Quality Improvement and Excellence Action Plan (2020–2023)". The plan proposes that a new educational form of "Internet Plus" and "Smart Plus" should be vigorously promoted, and the vocational education has become a national development strategy. At the same time, the national development strategy and macro policy framework of open education that is "led by the government, main body of schools, social participation, oriented to application, and promoted by classification" have also taken shape. The integration of open education and vocational education is conducive to the construction of an education system that serves the lifelong learning of the whole people, and also coincides with the needs of high-quality development of learning cities.

If the two kinds of education can be deeply integrated, and innovative practices in education and teaching reform, integration of industry and education, management and governance mechanism construction, and innovation of school-running systems can be achieved, the two can achieve mutual growth and coordinated development, better serve the goals of universal lifelong learning and the construction of a skilled society, and empower the construction of learning cities. It is believed that in the process of optimization and integration, it is necessary to effectively integrate resources from the aspects of teachers, experimental training, teaching methods, information technology, institutional mechanisms, etc. in accordance with the idea of "open vocational education and open education professionalization", make overall planning for pre-service learning and post-service training, rational layout, achieve complementary advantages, give play to the important role of open education and vocational education in building a learning society and building a lifelong education system, and provide personalized, hierarchical, high-quality learning resources and learning support for all types of people. Besides, it is suggested to promote lifelong education to go deep into every space of learning city construction, promote lifelong learning into every citizen and his family, popularize every community, and realize a new engine for promoting urban development with learning city construction.

3 Path for the Integrated Development of Open Education and Vocational Education to Serve the Learning Cities

3.1 Realizing the Sharing and Complementarity of Two Educational Resources

Firstly, it could rely on the National Digital Learning Resource Center and the Learning Resources of the National Open University, realize the integration and aggregation mechanism of learning resources, improve the all-round resource distribution system and the co-construction and sharing mechanism of learning information, and continue to build an online teaching platform with the advantages of advanced educational technology means of open education, and build a new system of high-level online and offline collaborative education.

Secondly, it could use distance education technology to push all kinds of vocational education resources, disseminate them to learners through the network and information platform, connect distance education technology and vocational education and training with personalized learning mode, realize the interaction between distance education technology and vocational education resources, expand the coverage of regional vocational training, and improve pertinence and effectiveness.

Thirdly, it could meet the diverse and personalized learning needs of different learners. Integrate and develop high-quality social education resources with modern information technology, and transport them to the vast mountainous areas and communities, rural areas and islands, break through the restrictions of time and space, improve the educational opportunities of different ages, different education levels, and different occupations, and provide better educational services to promote educational equity. Create a ubiquitous learning environment that adapts to "everyone learns, learns everywhere, and can learn all the time", actively serves community education and lifelong learning, and meets the diversified and personalized learning and development needs of social members.

3.2 Exploring a New Model of Integrated Development of Open Education and Vocational Education Based on "Internet Plus"

The government should build a teaching environment, teaching methods and management service model for the integrated development of open education and vocational education enabled by "Internet Plus" technology. The government should use modern network information technology to build a one-stop curriculum resource sharing platform for higher vocational education and open education, maximize the optimization and integration of resources, and then improve the education mechanism and promote the coordinated development of higher vocational education and open education.

In order to serve the construction of a universal lifelong learning and skill society, the integration of open education and vocational education should focus on meeting the personalized, diversified and lifelong learning needs of the society, advocating the principle of vocational education and training for everyone, enhancing people's ability to develop and benefit society, and promoting people to live a dignified and happy life. There are three main aspects:

The first is to benchmark the construction of a skill-based society, continuously expand the depth and breadth of school-enterprise cooperation, and form a new pattern of all-round school-enterprise cooperation with first-class well-known enterprises at home and abroad and extensive cooperation with small and medium-sized enterprises. The school could carry out in-depth cooperation with enterprises to promote the construction of online learning spaces such as virtual factories and create a real working environment. Moreover, the government should expand social training, serve industry enterprises and carry out a variety of continuing education for social groups such as active and retired soldiers, school students, in-service employees, urban and rural unemployed people, rural practical talents, migrant workers in cities, new citizens in the process of urbanization, transfer workers, and the disabled.

The second is to focus on "Internet Plus Education" to strengthen the application of information technology in open education and teaching. At the same time, it is suggested to implement the strategy of rural revitalization, build high-quality curriculum resources, cultivate rural grassroots party members and cadres and new rural practical talents, explore new farmer talent training models, and explore the provision of high-quality personalized education services. Also, it is required to focus on solving the problem of education for vulnerable groups, and provide vocational training "skill packages" for special students.

The third is to use two kinds of educational resources to vigorously promote community education for the elderly and serve learning cities. The government should strengthen the top-level design of education for the elderly and community education and develop community education and education projects for the elderly with distinct regional characteristics. For example, during the epidemic period, the community education resources in all aspects have been integrated in many regions so as to enrich the spiritual and cultural life of the majority of community residents, who "fight the epidemic at home".

4 Measures to Give Full Play to the Respective Advantages of Open Education and Vocational Education to Empower the Construction of Learning Cities

4.1 Establishing an Integrated School-Running System, and Doing a Good Job of Top-Level Design for the Integrated Development of Open Education and Vocational Education

To implement the national and local policies on the integrated development of open education and vocational education, schools with the principle of two schools running as the integration should set up a leading group for the integrated development of open education and vocational education headed by the party secretary and the principal, so as to achieve mutual learning, model integration and mechanism innovation between the two in the integration. Besides, overall guidance and top-level design should be made in the integration of institutional functions and personnel, professional layout, spatial layout, development planning and other aspects of. Leaders of functional departments and second-level colleges, professional and curriculum leaders and industry experts shall form a special working group for the integrated development of open education

and vocational education, establish a joint meeting system for departments and units, comprehensively improve the integrated development guarantee system, provide effective policy support for the integrated development of open education and vocational education, and formulate corresponding management methods and evaluation systems according to their own conditions and integration development goals. After optimization and integration, it is necessary to deeply promote the optimization and reorganization of education and teaching personnel, unify the setting of teaching, teaching aids and social service departments, reposition departmental responsibilities and job responsibilities, and reconstruct management processes and work specifications.

4.2 Establishing a Mechanism for the Communication and Integration of Open Education and Vocational Education

The Opinions of the Ministry of Education on Accelerating the Informatization Development of Vocational Education requires "vigorously developing distance vocational education, accelerating the promotion of distance vocational education with multi-level complementarity, multi-mode coexistence and diversified development, and gradually forming a highly open and shared vocational education and training network". To promote the resonance of open education and vocational education at the same frequency and empower the construction of learning cities, it is necessary to create a modern vocational education system that is vertically connected and horizontally integrated, explore, cultivate and open up a new talent cultivation system that covers urban and rural areas, runs through all stages of labors, and adapts to the needs of industrial transformation and upgrading, provide learning resources that integrate teaching, service and practical training, and provides various academic and non-academic, realize the open model of online and offline and digital education interaction and sharing, and empower the needs of skilled society construction with the sharing of educational resources. And then, it is suggested to form a new development mechanism of cultural integration, system integration, resource integration, technology integration, and personnel integration, realize resource sharing, complementary advantages and mutual benefit, and jointly serve the high-quality development of learning cities.

With institutional innovation, it is necessary to build a general pattern of innovation in the talent training model of the integrated development of open education and vocational education, accurately implement policies, open up blockages and difficulties, break through bottlenecks as soon as possible, promote system convergence and support, improve a series of systems and standards such as funding input, teacher team, professional teaching, and information construction, and achieve integrated development in terms of funding investment, overall guidance, macro decision-making, and coordinated evaluation. First of all, it is suggested to build an integrated development community, be closer to the needs of learners, more highlight the characteristics of running a school, establish a new type of education community with resource sharing, and establish a perfect public digital learning resource platform for all citizens based on the advantages of local and local educational resources and relying on the integrated school-running system. Secondly, it is required to further improve the evaluation mechanism of open education integration vocational education, accurately position its evaluation, scientifically evaluate the results of each stage of the integration and development of the two,

and regard the evaluation results as an important reference basis for taking improvement measures. Third, local power universities and universities should adhere to the people-oriented development concept, build a perfect incentive mechanism according to the integration and development of open education and vocational education, and fully stimulate the enthusiasm of all parties to improve the quality of schooling and talent training through the integration of the two.

4.3 Building a System for Integrating Open Education with Modern Vocational Education

The certification of different learning outcomes between the two types of education through the credit bank is conducive to the efficient use of different educational and teaching resources between the two. Therefore, it is suggested to realize the mutual penetration and mutual promotion of vocational and open academic education and nondegree education. Especially, in the construction of majors and courses, information resources, multimedia resources and other aspects, it is better to achieve complementary advantages, sharing, the establishment of a unified education credit accumulation and recognition program. According to flexible training methods, it is suggested to implement flexible learning mechanisms, use multiple evaluation mechanisms, set "compulsory + elective" ratio and various forms of "elective" courses, including 1 + X certificate system pilot, and converse vocational skills certificates into credits. Then, the accumulated learning results will be transformed into various types of vocational skill level certificates, and the organic connection between vocational skills certificates and academic certificates will be completed. At the same time, it is suggested to work with vocational colleges, open education and training institutions and enterprises to ensure that the unified standards on the digital platform can achieve mutual certification, so as to achieve mutual benefit and win-win results between students, higher vocational education and open education institutions and enterprises.

Besides, it is required to continuously promote communication between academic education, academic education and vocational training and other types of education, explore the establishment of mutual recognition rules for learning outcomes that serve the needs of higher education, vocational education and enterprises and industries in the region, build vertical connection and horizontal communication, serve the "overpass" of lifelong learning of urban and rural residents, and promote the same frequency resonance between the construction of the regional lifelong education system and the high-quality development of learning cities.

5 Conclusion

In summary, to promote the integrated development of open education and vocational education, it is necessary to take the spirit of the Fourth, Fifth and Sixth Plenary Sessions of the 19th Central Committee of the Communist Party of China as the guide, improve the efficiency of running schools, promote the integration and optimization of the two types of educational resources, the reform and improvement of the education mechanism, promote the optimization of the talent training model, and provide support for the

transformation from "education for all" to "quality education for everyone". It has taken an important mission in promoting educational fairness and inclusiveness, meeting the people's lifelong and high-quality higher education needs, and further giving play to the important role of the integration of open education and vocational education in the construction of a regional lifelong learning system and learning society.

Authors' Contributions. This paper is independently completed by Shuang Jiang.

References

- Notice of the Ministry of Education on Printing and Distributing the Comprehensive Reform Program of the National Open University [EB/OL]. (2012-08-31) [2020-12-21]. http://www.moe.gov.cn/srcsite/A07/zcs_zhgg/202009/t20200907_486014.html.
- Notice of the Ministry of Education and nine other departments on printing and distributing the Action Plan for Improving the Quality and Cultivating Excellence of Vocational Education (2020–2023). http://www.gov.cn/zhengce/zhengceku/2020-09/29/content_5548106.htm.
- Guo, Qing, and Shanyun Yu. 2014. Two schools running as the integration: An Ideal Choice for the Open University of China——A Case Study of Chongqing Radio and Television University. China Distance Education 2014 (8): 81–85.
- Hu, Wanda, and Jiming Hu. 2019. Practical investigation and optimization path of integration of distance open education and vocational education. Education and Careers 2019 (7): 98–104.
- Song, Pu, and Xiaofang Shen. 2018. The Current Situation, Dilemma and Governance Of the Integration of Distance Education and Vocational Education from the Perspective of Symbiosis Theory. *Adult Education* 2018 (1): 18–22.
- 6. Zeng Xiangyue and Qi Zhiming opened the university under the model of "two schools running as the integration" of running the school Research on the Construction of a Community of Common Destiny with Higher Vocational Colleges and Universities Adult Education 2020 No. 12.

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