DOI: 10.53469/jsshl.2024.07(05).09

# Developing Vocational Education and Deepening the Integration of Industry and Education Providing Human Resources Support for Building a Strong Provincial Centre-Taking the Development of Vocational Education in Sanmenxia as an Example

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Abstract: Since the 18th National Congress of the Communist Party of China (CPC), China's vocational education has experienced significant improvement and optimisation, and the group of graduates from vocational colleges and universities has grown to become the backbone of China's industrial army, which not only provides a solid support for the vigorous development of small and medium-sized enterprise clusters, but also greatly promotes the transformation and upgrading of the regional industry, and accelerates the process of urbanization, which has become an important driving force for the socio-economic development of the society. In recent years, Sanmenxia City has paid special attention to the development of vocational education in the process of strengthening the construction of provincial centre city, and has cultivated a large number of high-quality technical talents, which has provided a solid talent foundation for the transformation and development of the city's economy and society. Taking the development of vocational education in Sanmenxia as an example, this paper focuses on the inevitability and positive contribution of vocational education to the construction of Sanmenxia as a provincial central city, analyses the current situation, and puts forward countermeasures and suggestions for the future of vocational education in the provision of talent support for the construction of a provincial central city.

Keywords: Vocational education; Sanmenxia; Provincial central city; Integration of industry and education.

# 1. THE INEVITABILITY OF DEVELOPING VOCATIONAL EDUCATION IN PROMOTING THE CONSTRUCTION OF SANMENXIA AS A PROVINCIAL CENTRE CITY

# 1.1 The Development of Vocational Education is a National Policy Trend to Promote High-quality Development

Vocational education, as a core part of the national education system and human resources development, shoulders the important mission of cultivating diversified talents, inheriting exquisite skills, and promoting employment and entrepreneurship. General Secretary has attached great importance to the development of vocational education, and since the 18th National Congress of the Party, he has made many insightful comments, pointing out the way for the innovation and development of vocational education in China in the new era, laying a solid foundation for the construction of a modern vocational education system with international competitiveness and Chinese characteristics, and clearly depicting the blueprint for the future.

# 1.2 The Development of Vocational Education is an Important Means of Providing Talent Support for Sanmenxia to Build a Strong Provincial Centre City

At present, Sanmenxia on the one hand, as a resource-based city, traditional industries still dominate the industry chain is still relatively fragile; on the other hand, the new development momentum is accelerating the accumulation of the country to speed up the optimisation and upgrading of economic structure, deepen the reform and opening up of the context of macroeconomic policy, industrial policy is more conducive to accelerate the

construction of the province's "one nucleus, four axes and two belts" spatial layout also provides us with policy dividends and development resources, facing another round of new opportunities for development. 2023 in-depth implementation of the strategic policy of innovation drive, science and education and talent city. The spatial layout of "one core, four axes and two belts" also provides us with policy dividends and development resources, facing another round of new opportunities for development. 2023, we will deeply implement the strategic policy of innovation-driven, science and education and talent-intensive city, and through the implementation of a new round of R & D investment and the number of high-tech enterprises "doubling plan" and "full-scale innovation of enterprises under the regulation". This goal will be promoted through the implementation of a new round of the "Doubling Plan" for R&D investment and the number of high-tech enterprises, as well as the "Innovation Coverage Action for Regulated Enterprises". We will focus on the construction of first-class innovation platforms such as the Key Metal Henan Laboratory and independent undergraduate colleges, and promote the industrialisation and application of innovation results by using the pilot base of high-purity metal arsenic and the science and technology market. At the same time, the implementation of the "30 Talent Policies" will attract first-class innovative talents.

# 2. POSITIVE CONTRIBUTION OF VOCATIONAL EDUCATION TO THE CONSTRUCTION OF THE PROVINCIAL CENTRE CITY OF SANMENXIA

Take Sanmenxia Vocational and Technical College as an example, vocational education comprehensively implements the Party's education policy, with the construction of a modern vocational education system as the main line, adhering to the positioning of vocational education, adhering to the moral education, moral and technical and cultivation, with the connotation of vocational education as the leader, constantly deepening the integration of production and education, school-enterprise cooperation, focusing on mending the shortcomings, strengthening the weaknesses, and maintaining the momentum of sustained and rapid development in the past five years, the college to carry out various types of vocational skills training reached 165,000 people, providing technical personnel to support the construction of Sanmenxia province centre city, and making positive contribution to the development of vocational skills training. In the past five years, the college has carried out various kinds of vocational skills training numbered 165,000 times, providing technical personnel support for Sanmenxia to build a strong provincial centre city and making positive contributions.

#### 2.1 The Party's Policy has Been Disseminated More Forcefully.

We organise all kinds of preaching activities and thematic study seminars, and make full use of national patriotic education demonstration bases such as the Sanmenxia Dam and other red resources to teach practical ideological and political lessons. By telling the story of the Party's century-long struggle, students are educated and guided to firmly "listen to the Party and follow the Party".

## 2.2 The Training of Technical Personnel has Blossomed in Many Ways.

Adhering to the principle of being led by actual demand, we focus on cultivating high-quality technical and skilled talents that meet the requirements of industries and trades. To this end, Sanmenxia Vocational and Technical College, together with Sanmenxia Speed Traffic Energy Saving Technology Co., Ltd. and Henan Juntong Vehicle Co., Ltd. and other enterprises in the industry, have launched the modern apprenticeship teaching and practice project in three key areas, namely, electromechanical integration technology, construction and decoration engineering technology, and tourism management. Through this innovative mode, we have explored the integrated reform path combining enrolment and recruitment, and so far we have successfully cultivated more than 270 excellent students and achieved a high employment rate of over 95% for many years in a row, which fully demonstrates the effectiveness of the in-depth integration of education and industry. The college has built a practical teaching platform integrating "production, teaching, research, creation and training". The

## 2.3 The Effectiveness of the Integration of Industry, Education, Schools and Enterprises has Been Highlighted.

Closely focusing on the major mission of ecological protection and high-quality development of the Yellow River Basin, as well as the core needs of the national strategic layout of "three regions and one group" and the construction of the provincial central city, based on the principle of "strengthening the professional basis of interoperability, close convergence of technical fields, highly relevant vocational positions, open sharing of teaching resources Based on the principle of "strengthening the basic interoperability of professions, close

convergence of technical fields, high relevance of vocational positions, open sharing of teaching resources", six high-level professional clusters including mechatronics technology have been carefully integrated and optimally established in order to form a synergistic and mutually complementary "wild goose flock effect". We have actively explored the new path of enterprise co-operation and education, and successfully established five industrial colleges, including Daqi Laser Industrial College, Kunpeng Industrial College, Jingdong E-commerce Industrial College, SZXS Industrial College and Henan Strategic Emerging Industries College, aiming at deepening the multi-dimensional and comprehensive co-operation in talent cultivation, scientific and technological innovation, technical service and skills training. These industrial colleges, as new school-running entities integrating "production, teaching, research, creation and training", are gradually demonstrating the effectiveness of multi-functional and multi-subject deep integration, injecting new vitality into the economic and social development of the region.

# 3. ANALYSIS OF THE CURRENT SITUATION OF VOCATIONAL EDUCATION IN THE CONSTRUCTION OF THE PROVINCIAL CENTRE CITY OF SANMENXIA

On the whole, the municipal party committee and the municipal government have attached great importance to vocational education, and have continued to make education an extremely important livelihood issue, constantly increasing investment in human, material and financial resources, and introducing a series of policies and measures to promote the development of vocational education. Various types of vocational education have focused on the implementation of the fundamental task of establishing a moral character, strengthening management, deepening reforms, and significantly improving the quality of education and the conditions for running schools, and are moving in the direction of high-quality development of education. However, it is undeniable that the level of development of vocational education and the general public's urgent expectations, with the current Sanmenxia build a strong provincial centre compared to the demand for talent, there are still some shortcomings and short boards. Specifically, the main performance in the following areas.

- 3.1 Conceptual awareness needs to be improved. The Government and the relevant departments of the Vocational Education Act and the relevant policies and measures of the higher levels of learning and publicity is not deep enough. Vocational education is not strong attraction, some parents, students of vocational education concept lagging behind, affecting the recognition of vocational education, enrolment difficulties. The city's vocational school conditions of operation, teachers are equipped with varying degrees of relative lag. At the same time, the enthusiasm of social forces to set up or donate to vocational education is not high.
- 3.2 service development needs to be enhanced. The city's vocational education can not better meet the economic and social development of technical and skilled personnel in various aspects of demand, first, the development of vocational education guidance and regulation is not enough in place, and the second is the vocational school speciality settings and local economic development and social needs of the combination is not close enough.
- 3.3 Team-building needs to be strengthened. Teacher training is still a weak link in the development of vocational education, with insufficient staffing, an irrational structure and a single source; there is a failure to attract and retain high-quality professional teachers, a lack of access to part-time teaching in vocational schools or to full-time teaching through recruitment, and a lack of favourable policies.

# 4. COUNTERMEASURES AND SUGGESTIONS FOR THE DEVELOPMENT OF VOCATIONAL EDUCATION IN SANMENXIA TO BUILD A STRONG PROVINCIAL CENTRE CITY

4.1 Strengthen planning to lead the development of vocational education system. In accordance with the requirements of the positioning of high-quality construction of inter-provincial regional centre, improve the city's vocational education development special planning, efforts to promote the investment of funds for teaching, allocation of educational resources, enrolment mechanism to improve the specific level of the work, clear the city's vocational education development of the long-term goal direction and the specific implementation of the initiative. Strictly in accordance with the "14th Five-Year Plan of Henan Province" and "Henan Province, along the yellow area of ecological protection and high-quality development plan", accelerate the construction of vocational education centres, and strive to build a new park with complete infrastructure, convenient public transport, excellent cultural and leisure services, and complete functions, so as to provide material conditions for the

development of vocational education.

4.2 Deepening the integration of industry and education and stimulating the development of vocational education. With the vigorous emergence of new-generation information technologies such as Internet technology, big data, cloud computing and artificial intelligence, global industries are entering a profound wave of transformation. These technological innovations have not only greatly promoted the deep integration of the digital economy and the real economy, but also led various industries to move towards a more digital, networked and intelligent direction, which has given rise to many novel business forms and operation models. Against this background, vocational education has ushered in unprecedented development opportunities and serious challenges.

In order to keep pace with the ever-changing pace of science and technology and the changing trends of market demand, the vocational education system is in urgent need of profound adjustment and optimisation. On the one hand, it is to set up and optimise majors around industrial development. In view of the actual needs of industrial development in Sanmenxia area, through flexible adjustment of the professional layout, consolidate and strengthen the equipment manufacturing, electronic information, automobile manufacturing, new materials and other traditional advantageous industries in the construction of professional clusters, while actively laying out a new generation of information technology, high-end equipment manufacturing, intelligent network cars, new energy vehicles, energy-saving environmental protection and other emerging fields of related professions, to ensure that the education and industry of the close docking. On the other hand, vocational education needs to actively serve the strategy of rural revitalisation. Make full use of the advantageous resources and research talent concentration effect of tourism management, e-commerce, marketing and other majors to cultivate the professional technology and management talents urgently needed for rural revitalisation for the local government. Through the continuous development of new vocational farmers training and training work, take the initiative to integrate into the construction of beautiful countryside, to provide solid intellectual support and talent guarantee for rural revitalisation.

4.3 Innovate the curriculum and create a new mode of school-enterprise cooperation. Build a comprehensive network online learning platform, the cutting-edge "big intelligence, mobile, cloud and things" and other technologies into the teaching standards and course content, and carefully create a rich and diverse network resources course library. The platform focuses closely on the latest trend of industrial development, follows the actual work logic of industry and jobs, and designs a set of scientific course system: starting from the basic courses shared at the bottom, the middle level is separated and penetrated according to the professional characteristics, and the top level provides inter-professional courses, thus building a flexible and comprehensive professional group course system. This system ensures that the content of the courses can be adjusted closely with the changes in job requirements, and realises the seamless connection between the teaching content and the job standards, so that the students can use what they have learnt.

Relying on regional industries to strengthen the curriculum, further highlighting the characteristics of the profession, effectively improving the degree of matching between the profession and the market, and providing a good basic guarantee for the employment of graduates of vocational colleges and universities. Increase the capital investment in experimental and practical training facilities, adopt multiple forms and channels to build experimental and practical training bases for key specialities, characteristic specialities and advantageous specialities of each school; actively set up a platform for sharing educational and teaching resources, promote the sharing of practical training equipment in each school, and improve the resource utilisation rate of key equipments. By analysing the big data to understand the unique trend and law of employment in the enterprise industry, and then feedback to guide vocational colleges and universities to adjust their professional settings and class sizes in a timely manner, to fundamentally strengthen the depth and effectiveness of school-enterprise cooperation. A series of incentives for school-enterprise co-operation, including financial subsidies, tax exemptions and policy support, aim to actively stimulate the enthusiasm and motivation of enterprises to participate in school-enterprise co-operation. At the same time, we are actively exploring diversified paths of running schools, encouraging and promoting the integration of various social forces into the field of vocational education, and gradually realising the transformation of the government's role from "leading the running of schools" to "management services". In this process, we support and regulate social forces such as enterprises that are in a position to set up vocational education and training programmes or work with vocational colleges and universities to carry out co-operative education, promote the development of vocational colleges and universities in the direction of shareholding and mixed ownership, further deepen the integration of industry and education, school-enterprise co-operation, and the combination of education and training, and build and improve a diversified vocational education system.

4.4 Promoting conceptual change and creating a favourable environment for vocational education. Guide the whole society to set up the concept of respecting labour, knowledge, technology and innovation, change the concept of students' parents who attach more importance to general education than to vocational education, and improve the attractiveness of vocational education. Make full use of activity carriers and the media to vigorously publicise the advanced deeds and important contributions of high-quality workers with applied technology and skills in technological innovation, process improvement, product upgrading and management optimisation. They are also increasing their commendations and rewards for front-line workers, improving the economic treatment and social status of ordinary workers and skilled personnel, actively advocating the "craftsman's spirit", achieving a positive interaction between the training of skilled personnel, social demand and employment promotion, and creating a public opinion environment and atmosphere conducive to the development of modern vocational education.

#### 5. SUMMARY

Taking the development of vocational education in Sanmenxia as an example, this paper focuses on the important relationship between the development of vocational education and the provision of talents for the construction of Sanmenxia as a provincial centre city. Firstly, it puts forward the inevitability of the development of vocational education in promoting the construction of Sanmenxia provincial central city, which is not only the trend of the national policy of promoting high-quality development, but also an important means of providing talents support for Sanmenxia to build a strong provincial central city; secondly, it enumerates the positive contributions of vocational education to the construction of Sanmenxia provincial central city, and the vigorous development of vocational education has made the propagation of the Party's policy more powerful, and the training of technical talents has blossomed, and the integration of industry, education and school-enterprise has been effective. Technical personnel training bloomed in many ways, the effectiveness of the integration of industry, education and school enterprises; and then on the vocational education in the construction of Sanmenxia provincial central city in-depth analysis of the status quo, constraints on the development of vocational education in Sanmenxia bottlenecks are the concept of awareness needs to be improved, the service development needs to be strengthened, the team needs to be strengthened and so on; Finally, on the development of vocational education in Sanmenxia province for the construction of a strong central city of the province to provide human resources to support from the strengthening of planning to lead, to achieve the vocational education system, to provide vocational education in the province to provide human resources support from the strengthening of planning Lead, to achieve the systematic development of vocational education; deepen the integration of industry and education, stimulate the development of vocational education vitality; innovative curriculum, to create a new model of school-enterprise alliance; to promote the concept of change, to create a good environment for vocational education, four aspects of countermeasures proposed. I believe that in the near future, vocational education will be able to accelerate the construction of Sanmenxia City, modern industrial system, enhance the core competitiveness of industry, cultivate new momentum of economic development and other aspects of the provision of strong talent support for Sanmenxia to build a strong provincial centre city to make greater contributions.

#### ACKNOWLEDGMENTS

Project: Henan Provincial Department of Education Higher Education Key Scientific Research Project, Project No. 22B880029, Project Name "Research on the Theory and Path of Industry-Teaching Integration in Higher Vocational Education in Jin, Shaanxi, Henan and Yellow River Golden Triangle in the Context of Double-High Construction".

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