

# Research on Diversified Talent Cultivation Paths through School-Region Collaboration

Yang Wu, Shuifang Xu, Zhijian Xiao, Naifu Dong

Zhejiang DongFang Polytechnic, Wenzhou, Zhejiang, 325000, China

## Abstract

The report of the 20th National Congress of the Communist Party of China states that "education, science and technology, and talent are the fundamental and strategic supports for building a modern socialist country in all respects", expounding on education, science and technology, and talent as an integrated whole. At present, with the rapid development of economic globalization, how to enable students to deeply understand and master professional knowledge through education, cultivate their local cultural heritage, and become high-level talents adaptable to international competition has become a hot social topic. This paper combines the education of vocational colleges with the exploration of regional resources, deeply explores the diversified paths of talent cultivation, analyzes relevant issues, and puts forward countermeasures and suggestions, aiming to provide references for the cultivation of high - skilled talents in the industry.

## Keywords

School-region Collaboration; Talent Cultivation; Diversification; Paths; Problems; Countermeasures and Suggestions.

## 1. Introduction

General Secretary Xi Jinping emphasized that strengthening basic research ultimately depends on high - level talents, and it is necessary to build a systematic and high - level platform for cultivating basic research talents. Against the backdrop of economic globalization, the information technology revolution, and the in - depth adjustment of the industrial structure, the social demand for high - quality talents has shown a multi - level and multi - dimensional structural transformation. Vocational colleges, as important bases for talent cultivation, face both opportunities and challenges. Local industries have an urgent need for relevant talents. Therefore, exploring diversified talent cultivation paths through school - region collaboration has become an important topic in the reform and development of education. This model aims to meet the diversified needs of society, respect the individualized development of students, and focus on cultivating students' comprehensive qualities, practical and innovative thinking. School - region cooperation can integrate regional resources, promote the integration of industry, education, and research, and inject impetus into local development. This paper aims to deeply explore the relevant content of diversified talent cultivation paths through school - region collaboration, analyze problems and challenges, and propose solutions, providing support for school - region cooperation and helping to cultivate more high - quality and compound talents [1].

## 2. Introduction to the Research on Diversified Talent Cultivation Paths through School-Region Collaboration

### 2.1. Keeping Pace with the Requirements of Education Reform

Vocational colleges, as the main front for talent cultivation, need to constantly innovate talent cultivation models to adapt to the needs of social development. Deepen reforms in key areas such as training objectives, teaching models, professional systems, and school - enterprise cooperation to enhance teaching vitality and the quality of talent cultivation. [2] Adhere to the unity of goal - orientation, problem - orientation, and effect - orientation, accelerate the construction of a high - quality education system, and focus on optimizing the allocation of regional educational resources. Build a high - quality and professional teaching staff, improve the long - term mechanism for the construction of teachers' professional ethics, and strive to cultivate more high - quality technical and skilled talents, master craftsmen, and great artisans. Focus on solving the essential problems of the in - depth integration of industry and education, enabling two - way empowerment and mutual pursuit between schools and enterprises, and creating a good ecological environment for the synchronous development of education and the economic society.

### 2.2. Meeting the Needs of Regional Development

In the context of the information age, China's technology industry is transforming from low - end to mid - high - end, and the requirements for talents' professional abilities and comprehensive post capabilities are gradually increasing. Different regions have different regional advantages, resulting in different industrial development directions and varying demands for post talents. Local governments, as the leaders of economic and social development, will actively participate in the talent cultivation process to achieve a close connection between industries and talents. Vocational colleges will closely cooperate with local governments and enterprises to jointly cultivate compound talents with theoretical knowledge and practical abilities, better meeting the needs of regional development.

### 2.3. Policy Promotion and Support

The "Several Opinions on Comprehensively Improving the Quality of Higher Education" issued by the Ministry of Education clearly proposes to explore and establish open, integrated, and efficient new models such as school - school collaboration, school - institute collaboration, school - enterprise collaboration, school - region collaboration, and international cooperation, enhance the social service capabilities of universities, promote the inheritance and innovation of culture, and build a high - quality educational resource sharing system. The state and local governments attach great importance to and support school - region collaborative talent cultivation [3]. The introduction of relevant policy documents provides strong guarantees for school - region collaboration. For example, in the cooperation between a certain university and an agricultural product enterprise, the school takes its crop research and development achievements and planting technology as an intellectual investment, the enterprise invests advanced production equipment and funds, and the local government provides land and preferential policies. The three parties work together to promote resource sharing and complementary advantages within the region.

### 2.4. Practical Exploration and Experience

In reality, some vocational colleges have explored school - region collaborative talent cultivation and achieved certain results. These practices provide valuable experience and inspiration for the research on school - region collaborative talent cultivation paths. For example, schools cooperate with local governments and enterprises to establish high - quality employment practice bases and practical teaching bases, providing students with more job

opportunities and better practical platforms; integrate "local" and "characteristic" knowledge with professional and academic courses closely, and optimize teaching design; actively carry out school - region collaborative talent cultivation work by introducing relevant policies and financial support.

### **3. Research Status at Home and Abroad**

#### **3.1. Domestic Research Status**

Domestic scholars' research on diversified talent cultivation paths through school - region collaboration mainly focuses on aspects such as collaborative education mechanisms, optimization of talent cultivation plans, construction of teaching staff, construction of innovation and entrepreneurship platforms, and in - depth integration of industry, education, and research [4].

The talent cultivation model in China usually takes disciplines as the leading factor, emphasizes both theory and practice, and conducts diversified cultivation. In China's higher education system, schools focus on discipline education, pay attention to the cultivation of students' disciplinary abilities, and promote students' academic growth through scientific research. At the same time, they provide students with practical opportunities, allowing them to learn and grow in practice and transform the learned theoretical knowledge into practical abilities. With the continuous changes in social development and talent demands, schools encourage students to explore and practice in different fields, expanding students' multi - element qualities, which helps them cultivate practical abilities and innovative spirits.

A diversified talent cultivation pattern has gradually taken shape in China's education system, covering basic education, vocational education, higher education, and other levels. It encourages interdisciplinary integration, emphasizes innovation and entrepreneurship education, and improves students' comprehensive qualities. Enterprises' enthusiasm for participating in talent cultivation is constantly increasing, and the trend of integration of industry and education and integration of industry, education, and research is obvious. Some schools and local industries have begun to explore methods of diversified talent cultivation through school - region collaboration. Through diversified channels such as jointly establishing training centers, signing strategic cooperation agreements, and implementing talent co - cultivation plans, they promote the efficient integration of resources and the coordinated development of advantages, thus achieving a win - win cooperation pattern.

Although domestic research has achieved certain results, there are still problems in some aspects, such as difficult resource allocation, imperfect cooperation mechanisms, and poor talent mobility. In addition, due to the large demand for professional talents in regional development, the mismatch between the talent cultivation of vocational colleges and local demands is likely to lead to brain drain.

#### **3.2. Foreign Research Status**

Foreign scholars' research on diversified talent cultivation paths through school - region collaboration is relatively in - depth and comprehensive, covering many aspects such as education policies, curriculum settings, teaching methods, and construction of teaching staff.

The talent cultivation models abroad usually focus on open - type education and research - type education, and cultivate practical abilities. In foreign higher education, students can not only choose their interested majors but also study a variety of courses in different fields, enhance interdisciplinary knowledge, and cultivate cross - border thinking and problem - solving abilities. While learning basic knowledge, students also participate in relevant research, which not only cultivates students' research abilities but also promotes academic innovation and disciplinary development. Schools usually provide students with various practical

opportunities, such as projects and internships, allowing students to apply the learned theoretical knowledge to practice and enhance their practical operation abilities.

Collaborative education, as a new educational concept, has also been widely applied and promoted abroad. For example, the Parent - Teacher Association (PTA) in the United States is a form of collaborative education organization. In Europe, some countries are also actively promoting the practice of collaborative education, such as the home - school cooperation in Finland. The cooperation between foreign universities and local governments, enterprises, etc. is becoming increasingly close. Through measures such as implementing collaborative projects and jointly establishing research and development institutions, they promote the in - depth integration of the industrial, academic, and research fields [5].

Foreign research also faces some challenges, such as inflexible organizational forms and practical forms of collaborative education, and conflicts of interest among participants. In addition, differences in education systems and cultural backgrounds in different countries and regions may also affect the implementation of school - region collaboration.

In summary, both domestic and foreign research on diversified talent cultivation paths through school - region collaboration have achieved certain results and practical experience. Each has its own emphasis and characteristics, with differences and complementary aspects. However, there are still some problems and challenges to be solved. It is necessary to further strengthen domestic and foreign exchanges and cooperation, draw on advanced experience and practical models, and promote the continuous innovation and development of research.

## **4. Problem Analysis**

### **4.1. The Mismatch between the Effect of School - Region Cooperation and Regional Development**

In fact, the resources of schools, local governments, enterprises, and other parties are relatively scattered and have not been effectively integrated. In the practice of school - region collaborative development, the two sides have not yet achieved in - depth integration in aspects such as cooperation projects and field layout. The existing cooperation models mostly remain at the surface integration and mechanical superposition of resource elements, failing to fully activate the potential value of social advantageous resources and lacking the systematic integration and efficient allocation of innovative elements of multiple subjects. There is a certain gap in the connection between the selection of cooperation projects and regional development needs. Some local enterprises cannot obtain the urgently needed talents and technologies from a single vocational college, resulting in less - than - satisfactory cooperation effects that do not fully meet the direction of regional development.

### **4.2. The Imperfection of the School - Region Cooperation Mechanism, Lacking a Long - Term Cooperation Mechanism and Institutional Guarantee**

School - region cooperation generally adopts a project - oriented model, promoting management effectiveness through specific projects. However, this mechanism often lacks a systematic strategic layout and is difficult to form a sustainable development plan. Existing cooperation is usually based on short - term projects or tasks, lacking long - term and stable goals and plans, making it difficult for cooperation to be continuous and in - depth. At the same time, the lack of a sound institutional guarantee, such as intellectual property protection and benefit distribution mechanisms, makes the two sides of school - region cooperation face many uncertainties and risks. For example, some school - region cooperations do not have clear cooperation frameworks and agreements, resulting in unclear rights and obligations between the two sides during the cooperation process and causing contradictions and disputes. The two sides of school - region cooperation should focus on improving the project management system,

deepen cooperation by optimizing task execution efficiency and enhancing information communication efficiency, and effectively enhance resource integration capabilities and collaborative innovation levels.

### **4.3. The Need for Further Optimization of School - Region Cooperation Methods**

At present, there is still room for improvement in school - region collaboration. Its cooperation model has not formed a mechanized operation system. Project decisions often focus on the unilateral strategic planning of the school, lacking in - depth integration with regional development needs, as well as a unified management mechanism and good overall coordination. The cooperation form is still in a simple and extensive model where the school provides talents and scientific research results, and the enterprise provides platforms and project funds. This single model limits the depth and breadth of cooperation and makes it difficult to give full play to the resource advantages of both sides of school - region cooperation. Moreover, the lack of an effective evaluation mechanism to accurately assess the performance of cooperation makes it difficult for both sides of cooperation to understand the actual situation and results of the project, so as to make targeted improvements. The cooperation methods of the two sides of school - region cooperation have not formed a joint force and have not fully mobilized enthusiasm. For example, the number of school - region cooperation platforms is continuously increasing, but high - quality projects with significant social influence and benchmark brand effects have not yet fully emerged.

## **5. Countermeasures and Suggestions**

### **5.1. Improve the Advantageous Resource Sharing System**

The report of the 20th National Congress of the Communist Party of China points out that "optimize the allocation of regional educational resources, and coordinate the collaborative innovation of vocational education, higher education, and continuing education." The primary problem faced by school - region collaboration is the difficulty of integrating innovative resources. On the one hand, there is insufficient resource sharing among the main bodies of various units in schools and regions, resulting in low utilization of innovative resources; on the other hand, there are barriers between different majors in schools, restricting interdisciplinary collaborative innovation. To achieve the integration and sharing of high - quality resources between vocational colleges and regions, the key lies in innovating the resource allocation mechanism. Under the premise of controlling or reducing educational funding investment, focus on developing the comprehensive effectiveness of human resources, material bases, capital reserves, and potential resources, so as to improve the overall resource utilization efficiency. Activate stock resources through optimization and combination methods, and maximize the input - output ratio of resources while ensuring educational quality. Rely on informatization to carry out inter - school exchanges and cooperation, transmit the most advanced educational concepts in a short time, form the most optimized cooperation form, and provide a fast - track platform for the stable and long - term sharing of multi - party resources, thus creating a better educational atmosphere for the cultivation of compound talents. [4] Strike a balance between school teaching and enterprise production, jointly conduct scientific and technological research and development, complement resources, and exchange advantages to cultivate talents in practice. When promoting the construction of the resource sharing system, efforts should be made to build a clear framework for the division of rights and responsibilities, and guide multiple subjects to participate in the design and improvement of institutional norms. By innovating and developing diversified resource circulation channels, gradually build a three - dimensional, multi - dimensional, and all - field talent cultivation resource sharing pattern,

and effectively promote the in - depth integration and coordinated development of school - region advantageous resources.

### **5.2. Establish a Long - Term Collaborative Education Mechanism**

For school - region collaboration to achieve in - depth integration and talent cultivation to yield significant results, it is necessary to promote the research capabilities of vocational colleges to a higher level, accelerate the practical application and industrialization process of scientific research results, and thus assist in the transformation and upgrading of the regional economy. By constructing an innovation ecosystem with in - depth integration of industry, education, and research, effectively transform technological research and development results into the driving force for industrial upgrading, and ultimately achieve the organic connection of the education chain, talent chain, and industrial chain, which is guaranteed by the construction of a long - term mechanism. It is necessary to strengthen top - level design, formulate a top - level plan for diversified talent cultivation through school - region collaboration, clear the responsibilities and rights of all parties, and establish a responsibility mechanism for sharing benefits and risks in industry - education - research cooperation. Each participating subject also needs to attach importance to integrating the core advantages of production practice, educational resources, scientific research innovation, and other fields. At the specific implementation level, adhere to being guided by real - world problems, key projects, and actual needs, and continuously improve the construction of the school - region collaboration mechanism. In view of the weak links in the existing institutional system, deepen research and exploration to promote the effective implementation of various institutional norms. Establish a collaborative education system with the participation of the government, enterprises, vocational colleges, etc. Through signing cooperation n agreements, jointly building training bases, and other means, standardize and systematize the joint cultivation of talents. During the implementation stage of school - region collaborative projects, deepen the strategic cooperation relationship between schools and regions by optimizing the structural construction of the innovation mechanism, and effectively transform talent cultivation results into social service effectiveness. This can not only drive the development of vocational colleges to a higher level but also provide continuous impetus for the optimization of the regional economic structure, ultimately forming a benign development pattern of in - depth connection between educational supply and industrial demand, and two - way promotion of resource sharing and benefit improvement.

### **5.3. Innovate the Output Model of Industry - Education - Research**

In the industry - education - research collaborative education mechanism, vocational colleges play a core hub role, the government acts as a bridge and link, and enterprises serve as the practical subject. The three parties collaborate to promote the research and development of scientific research projects and the breakthrough of key technologies, and promote the industrialization of scientific and technological innovation achievements. The purpose of school - region collaboration is to promote the transformation of scientific research achievements of universities into real productive forces through enterprise practice applications. This model of integration of industry and education effectively connects the channels between technological research and development and market demand, and promotes local industrial upgrading and economic development. The weak innovation atmosphere is a major dilemma in the collaborative innovation of vocational colleges. Affected by the traditional education model, teachers and students in schools often pursue short - term results, lack long - term vision and the spirit of adventure, resulting in a weak innovation atmosphere. In the practice of vocational colleges serving local development, constructing an education mechanism with colleges as the core and in - depth school - enterprise collaboration has become the key path. By establishing an industry - education - research linkage platform, vocational colleges can more efficiently connect with regional industrial demands, thus forming a positive interaction between the

cultivation of technical and skilled talents and the transformation and upgrading of the regional economy. This can not only enable students to understand the latest industry trends but also stimulate innovative thinking and promote their learning of industry - related knowledge. By strengthening the cultivation of scientific research talents and the dissemination mechanism of innovation culture, the transformation efficiency of scientific and technological achievements can be effectively improved, injecting sustainable kinetic energy into the high - quality development of the regional economy and the prosperity of social culture. If enterprises want to obtain professional and technical talents with strong "practical skills", they need to arrange front - line experts and excellent managers to participate in the talent cultivation work of vocational colleges to achieve resource collaboration and in - depth integration of industry and education. [5] According to the key requirements of the professional talent cultivation process, match corresponding projects to teaching links and scientific research projects according to majors, integrating teaching, production, and scientific research. Through selecting enterprises, introducing projects, refining teaching, and promoting collaboration, a three - dimensional and modular education system can be constructed.

### 5.4. Optimize the Talent Cultivation Plan

Academic Year	Stage	Practice	Competence Development	Certificates Obtained
Third Academic Year	Certified Position Personnel	Enterprise Internship on - the - Job	Pre - employment	Internship on - the - Job Certificate
Second Academic Year	Quasi - position Personnel	Productive Training	Comprehensive Position Competence	Vocational Qualification Certificate
First Academic Year	Newcomers in the Major	Cognitive Internship, In - school Internship	Public Quality, Professional Skills	-
Academic Year	Incremental Progression in Positions	Incremental Progression in Skills	Incremental Progression in Competence	Certificates Obtained

**Figure 1.** Diagram of the Talent Cultivation Model

Optimize and adjust the talent cultivation plan according to the development needs of local industries. Further deepen the reform of the "gradual ability - cultivation" talent cultivation model, gradually solve problems such as the overly scattered demand for professional talents. Align professional settings with industry demands, curriculum content with vocational standards, the teaching process with the production process, and vocational education with lifelong learning. Fully implement the apprenticeship reform, as shown in Figure 1. Add professional courses and practical links closely related to local industries to improve students' practical and innovative abilities. Offer public basic courses, professional basic courses, professional core courses, elective courses, and practical courses in a hierarchical manner. The knowledge system should be arranged from easy to difficult and in a progressive way, which is in line with the cultivation direction of high - quality skilled talents, enabling students to master more professional knowledge and skills. Based on the existing talent cultivation plan, strengthen the reform and construction of professional core courses, including the reform of

teaching methods and textbook construction. Teach the curriculum content flexibly according to the actual situation of students. Combine multiple teaching methods such as practical teaching, project - based teaching, innovation education, interactive teaching, and online teaching to improve students' comprehensive qualities and vocational competitiveness.

### 5.5. Strengthen the Construction of the Talent Cultivation Platform

Vocational colleges and local governments jointly build a talent cultivation platform to provide students with guidance and support in education, time management, innovation, and entrepreneurship. Organize activities such as innovation and entrepreneurship competitions and training camps to stimulate students' learning and innovation enthusiasm. Leverage the advantages of local governments in developing cultural and creative industries, deepen school - enterprise cooperation, expand the scale of off - campus internship bases, and carry out the pilot construction of the "2 + 1" modern apprenticeship system to meet the talent needs of different employers. Strengthen the construction of the teaching staff, introduce outstanding talents with rich practical experience and innovation capabilities to enrich the school's teaching staff. Encourage school teachers to take temporary posts in enterprises to improve their practical abilities and teaching levels, and build an influential "dual - qualified and dual - capable" teaching team in the industry. Improve the teaching quality evaluation system, conduct comprehensive evaluations through practical achievements, assignment works, classroom performance, and examination results to fully reflect students' learning situations and actual abilities, and provide strong support for students' career development. Ensuring teaching quality requires the collaborative efforts of multiple parties. Classroom management should be the main focus, supplemented by student evaluations and supervision and evaluation. Schools need to develop strict management systems for students to ensure that teachers can manage effectively, providing a guarantee for the cultivation of high - quality talents.

## 6. Conclusion

Collaborative cultivation of diversified talents by schools and regions is a crucial measure to adapt to the development of the times. Although current cooperation faces problems such as insufficient resource integration and imperfect mechanisms, countermeasures like improving the resource sharing system, establishing long-term mechanisms, and innovating the integration model of industry and education can promote the deep integration of the education chain, talent chain, and industrial chain. It is expected that all parties will reach a consensus and work together to cultivate more high-quality composite talents adapted to regional development through a more dynamic cooperation ecosystem, injecting strong momentum into the high-quality development of the economy and society.

## Acknowledgments

Horizontal Project:

- 1)The achievement of the project "Research on the Dual - Coordinated Talent Cultivation Path Oriented by Enterprise Post Abilities - Taking the Visual Communication Design Major as an Example".
- 2)Research on AIGC-Enabled Innovative Design and High-Skilled Talent Cultivation in Packaging Enterprises (ZJDF-HX2025003);
- 3)Research and Practice on Strategies for Improving the Innovative Design Capabilities of Packaging and Printing Enterprises under New - Quality Productivity (ZJDF-HX2025009);
- 4)The Second Batch of Teaching Reform Projects during the 14th Five-Year Plan Period of Higher Vocational Education in Zhejiang Province (Research and Practice on the New-Quality

Teaching Reform of Art Design Professional Groups in Vocational Colleges Enabled by AIGC+ , jg20240290).

## References

- [1] Ge Nan. Research on the Path of Academic Atmosphere Construction from the Perspective of Diversified Talent Cultivation [J]. Heihe Journal, 2016(05).
- [2] Shi Xiaomin, Wang Yanjun. Exploration of the Diversified Talent Cultivation Path in Colleges and Universities Based on Personalized Teaching [J]. Green Science and Technology, 2020(19).
- [3] Feng Yangyang. Analysis of the Diversified Applied Talent Cultivation Path for Computer Majors in the Internet + Era [J]. The Guide of Science & Education (Upper Edition), 2020(31).
- [4] Wang Zhouhong. Exploration of the Diversified Paths for Cultivating Compound Talents in the New Model of University Cooperation and Exchange [J]. China Adult Education, 2015(21).
- [5] Yang Yan. Research on the Diversified Construction of the Teaching Staff in Vocational Colleges and the Path of Collaborative Innovation [J]. Research in Higher Education of Engineering, 2016(02).