

# ***Coupling Mechanism between Talent Demand for Rural Revitalization and Higher Vocational Education Talent Cultivation in Northern Jiangsu***

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**Abstract:** Currently, the higher vocational education talent cultivation system still suffers from a certain degree of misalignment with the diversified and complex talent needs presented by rural areas in multiple aspects, including professional layout, curriculum design, and practical teaching structure. Furthermore, the coupling between talent supply and actual job requirements is insufficient. In view of this, to actively respond to this practical problem, this paper takes the talent demand characteristics reflected in the process of rural revitalization as a guide, and introduces the unique perspective of coupling theory to construct a collaborative operation mechanism covering all aspects of "demand analysis—training design—practice implementation—competency feedback." In addition, this study also summarizes the adjustment directions of higher vocational education talent cultivation in terms of the accuracy of professional alignment, the integration of curriculum and practice, and the adaptability of comprehensive ability cultivation through qualitative analysis of policy texts, practical cases, and training models.

## **1. Introduction**

The Rural Revitalization Strategy, a crucial national strategy implemented in China's new era to promote agricultural and rural modernization, sets its core objectives as achieving thriving industries, ecologically sound living environments, civilized rural customs, effective governance, and prosperous lives. Against this backdrop, rural areas are experiencing a growing demand for highly qualified personnel with diverse application skills in various fields, including modern agricultural technology promotion, rural e-commerce operations, rural tourism development, and basic public services. This makes graduates of higher vocational colleges a significant source of

talent in these areas.

Based on a thorough consideration of the aforementioned realities, this paper focuses on the talent demand situation revealed in the rural revitalization process in northern Jiangsu Province. It also closely examines the current talent cultivation model implemented by higher vocational colleges, aiming to construct a theoretical framework for a coupling mechanism encompassing four key aspects: "talent demand insight—higher vocational education and training—practical implementation—capability and effectiveness feedback."

## 2. Related Works

Researchers have proactively conducted targeted studies from multiple perspectives, such as the specific methods of talent cultivation, the degree of support provided by relevant policies, the actual situation of entrepreneurship and employment, and the useful practices that enterprises have gained in management. These research results can provide some help and guidance for higher vocational colleges to carry out relevant work and for local areas to carry out specific practices in terms of theoretical reference and experience. In the context of the important and far-reaching rural revitalization strategy, Bai and Liu conducted a comprehensive and in-depth analysis of the urgent needs of grassroots talent cultivation, and then explained the important role and practical needs of colleges and universities in the process of rural talent cultivation [1]. Zhong analyzed the problems faced by young people when they return to their hometowns to start businesses and find employment, such as insufficient funds, lack of talent, complex market environment, insufficient policy support, and weak resource integration capabilities, and proposed solutions such as strengthening policy support, improving financial services, strengthening talent cultivation, optimizing market environment and resource integration capabilities [2]. Urme investigated the impact of talent management strategies on employee retention in a highly competitive environment, emphasizing the need to improve employee retention through scientific recruitment and selection, training and development, performance management, competitive compensation and benefits, and a healthy corporate culture, thereby reducing turnover costs and improving productivity [3]. Bristol-Alagbariya et al. analyzed the challenges faced by leadership development and talent management in a resource-limited environment, including limited funding, talent shortage and inadequate infrastructure, and proposed strategic human resource countermeasures, such as low-cost leadership training, innovative recruitment and retention strategies and succession planning [4]. Although existing research has made some progress in talent training, policy support and practical exploration for rural revitalization, there are still problems such as insufficient systematicness, insufficient empirical verification and a lack of close integration between higher vocational colleges and the actual needs of rural areas.

## 3. Methods

### 3.1 Talent Demand for Rural Revitalization in Northern Jiangsu

Under the background of rural revitalization in northern Jiangsu, talent demand has shown diversified and composite characteristics oriented towards industrial development. With the rapid development of modern agriculture, agricultural product processing industry, rural e-commerce, leisure tourism and rural public service system, the demand for talent in rural areas has shifted from single skill type to composite configuration of "technology + management + service". From the perspective of talent structure, there is a need for technical talents who have mastered modern planting and breeding technology, agricultural facility operation, agricultural machinery application and other professional skills, as well as management talents with project operation, marketing,

brand management and other capabilities. At the same time, composite talents with professional technical background and business governance capabilities are in the most shortage. Overall, technical talents are still the main body of grassroots rural revitalization talent team, but the proportion of management and composite talents is obviously low, and the structural imbalance problem is prominent [5].

### **3.2 Construction of the Coupling Mechanism between Talent Demand and Higher Vocational Education**

#### **3.2.1 Principles for the Construction of the Coupling Mechanism**

The coupling mechanism between talent demand for rural revitalization in northern Jiangsu and higher vocational education should follow the principles of demand orientation, capability orientation and sustainable development. Demand-oriented emphasizes taking industrial upgrading and grassroots governance as the starting point, aligning talent training goals with regional development, and avoiding courses from being divorced from reality; competency-oriented emphasizes job competency, guiding higher vocational education to transform from single skills to composite competency training; sustainable development requires the mechanism to have long-term stability and dynamic adjustment capabilities. In operation, it should rely on school-enterprise collaboration, policy guarantees and dynamic feedback to achieve resource sharing, process co-education and result sharing, and optimize talent training content through regular demand surveys and training effect evaluations to ensure that supply and demand are synchronized [6].

#### **3.2.2 Coupled Model Design**

Guided by the construction principles, a coupled model of "talent demand—training design—practical implementation—competency assessment—feedback improvement" is formed. Based on industry and job surveys, the professional settings and curriculum content are optimized, integrating new agricultural technologies, rural e-commerce, rural governance, and public services into the curriculum system to achieve cross-professional and cross-job competency integration. Practical training relies on school-enterprise co-constructed training bases and rural projects to enhance students' practical abilities. Competency assessment is conducted from dimensions such as skills, comprehensive practice, innovative awareness, and service willingness, and the assessment results are fed back to curriculum and professional adjustments, forming a closed-loop mechanism.

#### **3.2.3 Key Coupled Strategies**

Curriculum should align with the needs of the industrial chain and job positions, adopting project-based and task-based design to enhance practicality. School-enterprise collaboration should extend from internship cooperation to the entire process of education, with enterprises deeply involved in curriculum development and evaluation, and implementing dual-mentor guidance. Competency assessment establishes a multi-subject system, with enterprises and rural units participating in the assessment, and the results used for curriculum adjustments. In terms of policies and incentives, special funds, employment subsidies, and professional title promotion are used to guide graduates to devote themselves to rural areas, while supporting colleges and universities to deepen the integration of industry and education and ensuring the long-term stable operation of the mechanism.

### **3.3 Policy and Institutional Guarantees**

#### **3.3.1 Policy Support**

The construction of a coupling mechanism between the talent needs for rural revitalization and the talent cultivation of higher vocational colleges in northern Jiangsu Province cannot be separated from the continuous support of multi-level policies. At the national level, focusing on the rural revitalization strategy and the construction of a modern vocational education system, emphasis is placed on the integration of industry and education, collaborative education between schools and enterprises, and the functional positioning of vocational education in serving regional economic development, providing clear policy guidance for higher vocational colleges to deepen the direction of talent cultivation in the rural field. Relevant policies encourage higher vocational colleges to optimize their professional structure to align with rural industrial development, strengthen practical teaching and technical service functions, and improve the adaptability of talent cultivation to industrial development, providing an overall basis for the top-level design of the coupling mechanism.

At the provincial and municipal levels, a series of support policies have been introduced focusing on key areas such as the development of local characteristic agriculture, the cultivation of new rural business entities, and the improvement of grassroots governance capabilities, strengthening policy inclination towards the cultivation of urgently needed talents for rural revitalization and local employment guidance. On the one hand, support is provided to higher vocational colleges to strengthen the construction of agricultural-related majors and improve practical conditions through special vocational education funds and industry-education integration demonstration projects; on the other hand, measures such as talent introduction subsidies, settlement guarantees, and grassroots service incentives are used to guide graduates to return to rural areas for employment and entrepreneurship. These policies provide important support for the effective operation of the coupling mechanism in terms of funding, construction of practical platforms, and employment guidance.

#### **3.3.2 Institutional Construction and Guarantee Mechanism**

At the institutional construction level, firstly, a systematic operational system should be built around the entire talent cultivation process. The needs of rural revitalization should be integrated into the professional setting argumentation, curriculum standard formulation, and teaching implementation management of higher vocational colleges, forming a demand-oriented teaching management system that ensures that training content is consistently aligned with regional development realities. By establishing a dynamic professional adjustment mechanism and a regular curriculum content revision system, the continuous adaptability of talent cultivation direction can be ensured.

Secondly, regarding the assessment and evaluation system, a multi-stakeholder quality evaluation mechanism should be improved. Enterprises, grassroots employers, and industry organizations should be introduced to participate in the evaluation of student training effectiveness and professional education quality assessment. The evaluation orientation should be strengthened, focusing on job competence and practical performance. Evaluation results should be linked to teaching reform, resource allocation, and teacher performance evaluation, forming an endogenous driving mechanism that promotes construction through evaluation and improvement through feedback.

In the design of the school-enterprise cooperation system, the rights, responsibilities, and obligations of both parties in teaching organization, joint construction of practical bases, mutual

appointment of teachers, and achievement transformation should be clearly defined through agreements, projects, and institutionalization. This ensures the long-term stability of the cooperative relationship and avoids cooperation becoming merely a formality. Simultaneously, through institutionalized operation, the deep participation of enterprises in the entire process of higher vocational talent cultivation should be promoted, realizing the transformation of collaborative education from "loose cooperation" to "close community."

Regarding resource investment guarantees, a diversified investment mechanism that combines government investment as the mainstay with overall planning by colleges and universities and enterprise participation should be built, focusing on improving practical teaching conditions, teacher training, and curriculum resource development. A supporting performance evaluation and supervision system for the use of funds should be established to ensure the precise allocation of various resources to key links in the coupling mechanism, providing a continuous and stable institutional guarantee for the effective connection between talent cultivation and rural revitalization.

## **4. Results and Discussion**

### **4.1 Pilot Study Design**

#### **4.1.1 Pilot Subjects and Data Sources**

The pilot subjects were mainly representative vocational college practice cases in northern Jiangsu Province in recent years, focusing on agricultural professional development, industry-education integration, and regional services. Data sources were also used, including local government policies on rural talent revitalization, vocational education reform implementation plans, and relevant research findings from industry associations and research institutions.

The research materials included three categories: first, central and local government policy documents on rural revitalization talent strategies, vocational education reform, and industry-education integration; second, official websites, development reports, and typical project introductions of vocational colleges; and third, case descriptions and theoretical summaries of vocational education services for rural revitalization in northern Jiangsu Province from academic journals and research reports. Through cross-referencing of multiple textual sources, common and representative information was extracted to enhance the comprehensiveness and theoretical generalization ability of the pilot analysis.

#### **4.1.2 Research Methods and Analytical Path**

This study primarily adopted a qualitative research path combining literature analysis and case induction.

First, through a systematic review of policy texts and academic research literature, this paper summarizes the mainstream talent cultivation model and institutional support logic for higher vocational education serving rural revitalization.

Second, it extracts content and decomposes elements from typical university practice cases, summarizing their operational characteristics from dimensions such as professional settings, curriculum alignment, practical platform construction, and faculty collaboration.

Finally, based on the talent demand-cultivation coupling theoretical model constructed above, it compares and analyzes the mechanism elements presented in pilot practices, exploring the points of convergence and deviation between the model conception and actual operation, and forming structured qualitative cognitive conclusions.

## 4.2 Qualitative Analysis of Pilot Practice Content

Pilot materials show that some vocational colleges in northern Jiangsu have systematically optimized their agricultural and service-related majors around leading industries such as modern agriculture, rural e-commerce, rural tourism, and agricultural product processing. They have enhanced industry orientation through professional cluster integration, initially reflecting a demand-oriented training philosophy. In terms of curriculum development, rural e-commerce practices, agricultural product brand operation, and agricultural technology promotion are integrated into modules, employing project-based and task-driven teaching. Real project training is conducted based on practice bases, achieving a fusion of teaching, practical training, and service. However, some practices are still mainly observation-based, and the development of job skills needs to be strengthened. School-enterprise cooperation has become a key coupling mechanism. Through enterprise mentors and joint development of training programs, the adaptability of courses is improved. Local governments provide policy support by building government-school-enterprise platforms, but the overall depth of participation is still limited, and cooperation has not yet been fully normalized and institutionalized.

## 5. Conclusions

This paper takes the talent needs for rural revitalization in northern Jiangsu Province as its research object. It systematically analyzes the regional industrial structure, job competency requirements, and the current status of talent cultivation in higher vocational colleges. It proposes a coupling mechanism framework of "talent demand—higher vocational training—practical implementation—competency feedback," and explores key strategies such as optimizing professional layout, restructuring curriculum modules, and integrating school-enterprise collaborative education with practical teaching through policy text analysis and qualitative research on typical cases. Colleges are gradually focusing on industry needs in their professional settings and practical teaching, and a preliminary school-enterprise cooperation mechanism has been formed, which can improve students' composite abilities and job adaptability. This paper is mainly based on qualitative analysis and literature review, lacking large-scale empirical data verification, thus limiting its ability to quantitatively evaluate the effectiveness of the mechanism. Future research can further combine questionnaire surveys, interviews, or tracking data to conduct dynamic empirical analysis to improve the applicability and generalizability of the coupling mechanism, providing more accurate decision-making references for regional vocational education to serve rural revitalization.

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