
Exploration on the Path of Hainan Universities Boosting Rural Talent Revitalization from the Perspective of Industry-Education Integration

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Abstract: At the critical stage where the construction of Hainan Free Trade Port and the strategy of comprehensive rural revitalization intersect in depth, the contradiction between the shortage of rural talent supply and the demand for industrial upgrading has become increasingly prominent. As an institutional arrangement connecting the education chain, talent chain with the industrial chain and innovation chain, industry-education integration provides an efficient path for Hainan universities to accurately empower rural talent revitalization. Based on the practical shortcomings of rural talent team construction in Hainan, this paper analyzes four major obstacles existing in current universities in terms of professional adaptation, practical teaching, faculty development and operation mechanism. It puts forward specific strategies for Hainan universities to serve rural talent revitalization from four dimensions: dynamically optimizing the training system, building a university-local collaborative ecosystem, strengthening a practical-oriented faculty team and improving a diversified guarantee mechanism. The research aims to cultivate localized talents in Hainan's rural areas who "can stay, be useful and achieve development" through the sinking and integration of educational resources, support the comprehensive rural revitalization with talent revitalization, and lay a solid grassroots foundation for the construction of the Free Trade Port.

Keywords: Industry-education integration; Hainan universities; Rural talent revitalization; University-local collaboration; Free Trade Port

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1. Introduction

Talent is the key to rural revitalization. As China's only tropical island province and a distinctive Chinese Free Trade Port, the rural development of Hainan is not only related to the people's livelihood and well-being within the province, but also undertakes the important mission of demonstrating the achievements of national ecological civilization construction and exploring the path of modern rural governance. Affected by the regional economic structure and population mobility, Hainan's rural areas are currently facing multiple difficulties such as insufficient total talent volume, structural imbalance and outdated skills. The demand for high-quality, compound and application-oriented talents has been rising steadily in fields such as tropical characteristic high-efficiency agriculture, rural tourism and ethnic cultural inheritance.

As the core position of talent training, scientific and technological innovation and social services, universities assume the important function of providing talents for local development. Against the backdrop of the construction of the Free Trade Port, how to break the barriers between universities and rural areas through the reform of industry-education integration and realize the accurate connection between educational resources and rural needs has become a key issue to solve the rural talent bottleneck in Hainan and promote the high-quality development of rural areas. Based on the actual construction of Hainan Free Trade Port, this paper focuses on the perspective of industry-education integration and discusses the practical paths and guarantee measures for Hainan universities to boost rural talent revitalization.

2. Practical dilemmas of rural talents and university industry-education integration services in hainan

2.1. Prominent shortcomings of Hainan's rural talent team

At present, the rural talent team in Hainan is characterized by insufficient total volume, low level, structural imbalance and serious brain drain. In terms of educational structure, more than 60% of rural employees have junior high school education or below, and less than 10% have college education or above. The proportion of professional and technical personnel such as agricultural technicians is far lower than the national average, and there is a huge talent gap in emerging fields such as rural e-commerce and rural governance.

At the same time, the phenomenon of talent outflow is severe. Young and middle-aged labor forces and high-quality young people continue to concentrate in urban areas and other provinces, leading to a prominent problem of “hollowing out” of rural talents, and the proportion of returning to start businesses and seek employment is low. The local talent team is facing a serious aging problem, and the skill structure mostly relies on traditional planting and breeding models, which is difficult to adapt to the new requirements of rural industrial upgrading and modern governance under the background of the Free Trade Port.

2.2. Major obstacles for hainan universities' industry-education integration to serve rural talent revitalization

First, the matching degree between professional and curriculum settings and rural needs is insufficient. The professional layout of Hainan universities is mostly oriented to urban modern service industries and the core industries of the Free Trade Port. The supply of characteristic majors and courses related to tropical agriculture, rural tourism and grassroots governance is scarce. There is a disconnect between talent training programs and the actual rural needs, and a dynamic adjustment mechanism of “demand - major - curriculum” has not been formed.

Second, practical teaching is weak and university-local cooperation is superficial. Most universities have a low proportion of practical teaching, with a limited number of off-campus practical bases and single functions. Cooperation mostly stays at the level of short-term research and voluntary services, lacking long-term carriers such as in-depth collaborative education and productive practical training. The adaptability of students' practical abilities to rural job needs is insufficient, and it is urgent to promote the in-depth transformation of university-local cooperation through policy guidance^[1].

Third, the construction of the double-qualified teacher team lags behind. Most teachers receive academic training from “campus to campus”, generally lacking practical experience in rural frontlines and industrial practical capabilities, making it difficult to carry out practical teaching. The introduction, management and incentive mechanisms for industrial tutors are not perfect, which restricts the improvement of teaching quality.

Fourth, the evaluation and guarantee mechanisms are imperfect. The university assessment and evaluation system emphasizes scientific research over services, resulting in insufficient motivation for teachers to participate in rural talent training. Local policies and fund support are not in place, and the interest linkage mechanism for university-local collaboration is missing, leading to the difficulty of long-term operation of industry-education integration projects.

Ten Measures for Hainan Province to Support the Empowerment and Upgrading of Vocational Education through Industry-Education Integration clearly states that it is necessary to co-ordinate financial and social capital to support the construction of practical bases, teacher training and project operation, and implement tax incentives and financial support for participating enterprises to stimulate their enthusiasm for participation^[2].

3. Paths for hainan universities to boost rural talent revitalization from the perspective of industry-education integration

3.1. Aligning with rural industrial needs and optimizing the talent training system

Based on the characteristics of rural industries in the Free Trade Port, Hainan universities should dynamically adjust the professional structure and curriculum content oriented by demand to realize the synchronous development of talent training and rural development. It is necessary to accurately optimize the professional layout, add or adjust professional directions around key fields such as tropical characteristic high-efficiency agriculture, southern crop breeding, rural tourism, Li and Miao cultural creativity, rural e-commerce and digital rural areas, build a rural revitalization professional group with Hainan characteristics, and accurately align with the core industrial needs of rural areas^[1]; restructure the modular curriculum system, integrate the interpretation of Free Trade Port policies, cutting-edge technologies of tropical agriculture, rural planning and design, digital skills, grassroots governance and other contents into core courses, develop school-based characteristic textbooks and practical courses suitable for rural reality, and promote the synchronous update of curriculum content with industrial frontiers; implement order-based and targeted training, carry out in-depth cooperation with municipal and county governments, towns, leading agricultural enterprises and cultural tourism parks, set up “rural talent order classes” to realize the synchronization of enrollment and demand and the connection between training and positions; improve the flexible learning system, implement the credit system and phased training for grassroots cadres, returning young people and new agricultural business entities, support the conversion of skill certificates and entrepreneurial achievements into credits, lower the academic threshold for rural talents and expand the coverage of training.

3.2. Building university-local collaborative platforms and constructing integrated education carriers

Universities should unite the government, rural areas and enterprises to build industry-education integration platforms, promote resource sharing, scene co-construction and talent co-cultivation. Co-build rural talent practical bases, establish “field classrooms”, “talent courtyards” and “science and technology courtyards” in towns, shared farms, tropical agricultural parks and intangible cultural heritage workshops, extend the teaching scene to the rural frontline, realize “base as classroom, practice as teaching”, and provide students with real productive practical training scenes. The practice of Hainan University has verified the effectiveness of this model^[3]; form industry-education integration consortia, with government coordination, university leadership and enterprise and rural participation, create a “government-park-university-enterprise” collaborative model, carry out integrated cooperation in talent training, technical services and industrial incubation, integrate multi-party resources to form a joint force for education, and the collaborative education system of Hainan College of Economics and Business provides a typical example for this^[4]; deepen the service model of science and technology courtyards, rely on the advantages of agricultural-related disciplines, organize teachers and students to reside in rural areas for a long time, carry out technology promotion, skill training, industrial planning and brand cultivation, cultivate local talents through the “scientific research + teaching + service” model, and promote the transformation and application of scientific and technological achievements; carry out regular training for local rural talents, offer special training on agricultural technology, e-commerce operation, cultural tourism planning, grassroots governance and other contents for village cadres, large growers, returning entrepreneurs and grassroots workers to comprehensively improve the comprehensive capabilities of local talents.

3.3. Strengthening the construction of double-qualified teacher teams and improving the ability of practical education

Building a faculty team with both theoretical level and practical experience is the key support for the implementation of industry-education integration. Establish a system for teachers' grassroots practice, promote professional teachers to take temporary posts and provide on-site services in rural areas, enterprises and agricultural parks, incorporate the achievements of grassroots practice and teaching effectiveness into professional title evaluation and performance assessment, and stimulate the endogenous motivation of teachers to go down to the frontline. Several Measures for Promoting the High-Quality Development of Modern Vocational Education to Serve the Construction of Hainan Free Trade Port puts forward clear requirements on this^[5]; introduce and cultivate industrial tutors and rural tutors, recruit part-time teachers and industrial tutors from agricultural technology promotion departments, rural enterprises, returning entrepreneurial leaders and inheritors of intangible cultural heritage to enrich the practical teaching faculty, and improve the selection, management and incentive mechanisms; form an interdisciplinary rural revitalization service team, integrate teachers from disciplines such as agriculture, tourism, management, design and information technology, form a joint force for collaborative education and social services, and provide all-round talent training and technical support for rural areas; strengthen special training for teachers, carry out special training on industry-education integration, rural industrial development, Free Trade Port policies and practical teaching methods to improve teachers' teaching and service levels in aligning with rural needs.

3.4. Improving the evaluation, incentive and guarantee mechanisms and consolidating the foundation for long-term operation

Stimulate the participation motivation of universities, teachers, students and rural areas through institutional innovation to ensure the long-term operation of industry-education integration projects. Optimize the evaluation orientation of universities, incorporate the effectiveness of industry-education integration, the achievements of serving rural talent revitalization and the benefits of technological transformation into the university performance assessment and professional evaluation, and guide the tilt of university resources to rural talent training; improve incentives for students' grassroots employment, implement policies such as tuition compensation, student loan compensation, targeted employment and preferential professional title evaluation, encourage graduates to work and start businesses in rural areas, and expand the scale of grassroots service projects such as the "Three Supports and One Assistance" and science and technology commissioners^[6]; strengthen policy and fund guarantees, implement the supporting policies for industry-education integration in Hainan Province, co-ordinate financial and social capital to support the construction of practical bases, teacher training and project operation, and implement tax incentives and financial support for participating enterprises^[2]; establish a talent tracking service mechanism, provide continuous technical guidance, entrepreneurial incubation and resource connection for the rural talents cultivated and delivered, form a closed-loop whole-chain service of "training - employment - growth", and improve the talent retention rate and contribution rate.

4. Conclusion

Industry-education integration is an important starting point for Hainan universities to serve rural talent revitalization, and also an inevitable choice to promote the coordinated development of education and rural areas. Facing the dual missions of the construction of the Free Trade Port and comprehensive rural revitalization, Hainan universities need to further break the university-local barriers, deepen the supply and demand connection, optimize talent training based on industrial needs, strengthen practical education through collaborative platforms, improve teaching quality with double-qualified teacher teams, and consolidate the long-term mechanism with institutional guarantees. By promoting the "three sinkings" of talent training, intellectual resources and scientific and technological achievements, universities can cultivate localized talents in Hainan's rural areas who "can stay, be useful and achieve development", support the comprehensive rural revitalization

with talent revitalization, and provide a solid grassroots talent support for the high-quality development of Hainan Free Trade Port.

Disclosure statement

The author declares no conflict of interest.

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