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Research on the Education and Training System of Farmers' Professionalization from the Perspective of Rural Revitalization

Jing Xiaoling[a], Li Na[b], Nie Xiujun[c*], Luan Chengjie[d], Zhou Song[e] , Zhao Xia[f]

Binzhou Politechnic, Binzhou, Shandong Province, China
[a]sdsjxl@163.com,[b]411245815@qq.com,[c]343637505@qq.com,[d]luanchengjie123@163.com,*
[e]187172111@qq.com, [f]yxzhaoxia@sian.com,
**Corresponding author*

Abstract: *China is a large agricultural country, so the issue of "agriculture, rural areas and farmers" has always been regarded as a key issue. With the development of modern agricultural science and technology, the revitalization of rural construction has been pushed onto the historical stage. This paper studies the specific plan for the construction of farmers' Vocational education and training system from the perspective of rural revitalization. Through "macro design at the upper level, detailed path at the middle level and improvement measures at the lower level", a logical and hierarchical framework of farmers' vocational education and training system can be established. It provides a theoretical reference for solving the contradiction between supply and demand of farmers' vocational education, helping the development of modern agriculture and the revitalization of rural talents, and cultivating new vocational farmers.*

Keywords: *Rural Revitalization; farmers' Professionalization; training system*

1. Introduction

The problems of agriculture, rural areas and farmers are fundamental issues related to China's national livelihood. The Communist Party of China has always regarded solving the problems of "agriculture, rural areas and farmers" as the top priority of the whole Party's work. The proposal of the Central Committee of the Communist Party of China on formulating the 14th five year plan and the long-term goals for 2035 for national economic and social development, which was deliberated and adopted at the Fifth Plenary Session of the 19th CPC Central Committee, pointed out that "China will meet the employment and entrepreneurial needs of farmers, develop vocational and technical education and skill training, and build a number of production education integration bases. Carry out farming and reading education. Accelerate the development of rural online education. Strengthen the construction of agricultural colleges and universities, agricultural vocational colleges and agricultural disciplines". As one of the important subjects of vocational training, vocational colleges should, from the perspective of rural revitalization, deeply analyze the contradiction between supply and demand of farmers' vocational training, analyze the causes of the problems, and explore the construction scheme of "farmers' Professionalization" education and training system, so as to play a role in cultivating new professional farmers, professional skilled talents, rural craftsmen and cultural talents, actively promote the revitalization of rural talents.

2. Research status at home and abroad

In recent years, the related research at home and abroad mainly focuses on the following four aspects: (1) research on new professional farmers and smart agriculture. By analyzing the problems existing in the development of smart agriculture, it is considered that the effective development of smart agriculture must improve the quality of farmers[1]. We can improve their agricultural technical ability and management ability by providing new professional farmers with relevant training in the application of modern technology[2]. And from the point of farmers' maladjustment in modern smart agricultural production, we can more accurately locate farmers' training projects[3]. (2) Research on Problems and Strategies of farmers' vocational training. Based on the analysis of the typical structural problems on the supply side of farmers' vocational training, we need to promote the supply side reform of farmers'

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vocational education and training from the aspects of institutional structure, and governance structure[4], and actively use the advantages of modern distance education to carry out farmers' training[5]. The ability of farmers to access and use online data services is particularly important in farmers' vocational training[6]. (3) Research on Farmers' Vocational Education under the strategy of Rural Revitalization. Under the Rural Revitalization Strategy, there are some "blind spots" in farmers' vocational training, such as the disconnection between the setting of training content and the market[7]. We should achieve rural revitalization through the development of regional characteristics[8], and strive to solve the problem of farmers' Vocational Education under the Rural Revitalization Strategy from four aspects: improving the identification mechanism, endogenous power, training system and assessment mechanism[9]. (4) Research on the construction of training system. The construction of China's farmers' vocational training system must be composed of the government, agricultural enterprises and vocational colleges[10], and must reflect the characteristics of county and modernity[11]. The construction of the training system must go through five stages: analyzing the training needs, designing the training process, formulating the training curriculum, implementing the training and evaluating the training effect[12].

The existing literature provides an important reference for this study, but there are still some limitations, which are mainly reflected in the following two aspects: first, the research on the construction of farmers' vocational training system from the perspective of Rural Revitalization is still rare. The existing research mostly focuses on problem combing and strategy exploration, and lacks a logical and hierarchical system architecture; Second, the existing research on Farmers' vocational training mostly takes county-level units as the research area. Although it is in line with the characteristics of regional development, it is not strong in migration, and lacks the model of farmers' vocational training system and promotion strategy suitable for the whole province.

3. Research significance

3.1. Theoretical significance

3.1.1. Enrich the research of Rural Revitalization in the field of vocational training

Taking farmers' vocational training as the research object, through the research on the construction of farmers' vocational training system, we can further strengthen the talent support in rural areas. From the perspective and ideas of vocational training, it has comprehensively assisted the revitalization of rural talents in our province and enriched the research of Rural Revitalization in the field of vocational training.

3.1.2. Broaden the development ideas of both education and training in Vocational Colleges

Vocational colleges are incorporated into the farmers' vocational training system and regarded as one of the diversified training subjects. By focusing on the contradiction between supply and demand of farmers' vocational training and optimizing training methods and modes, we can further improve the social service of Vocational Colleges in the work of "agriculture, rural areas and farmers", and enrich and broaden the development ideas of Vocational Colleges' education and training in the new era.

3.2. Practical significance

3.2.1. It provides a decision-making reference for solving the contradiction between supply and demand of farmers' vocational training

On the basis of investigating the contradiction between supply and demand of farmers' vocational training in our province, this paper analyzes the root causes of the problem. By exploring the mode and path of farmers' vocational training, we can further establish and improve the farmers' vocational training system in our province, and provide decision-making reference for realizing the customized, continuous and lifelong development of farmers' vocational training and solving the contradiction between supply and demand of farmers' vocational training.

3.2.2. It provides a model that can be migrated and popularized for the construction of farmers' vocational training system in our province

Combined with the big data of farmers' vocational training in 16 cities of Shandong Province, this paper analyzes and deduces the regional development characteristics and spatial distribution of farmers' vocational training in Shandong Province. Based on the deduction conclusion, the applicability of the construction scheme of farmers' vocational training system in 16 cities is adjusted, and the model of farmers' vocational training system is migrated, popularized and feedback optimized.

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4. Research content

4.1. Investigation on the current situation of farmers' vocational training

Taking farmers as the object, this paper investigates their demand for the content, form and obstacles of vocational training; Taking industrial enterprises as the object, this paper investigates their talent demand and post ability setting; Taking vocational colleges as the object, this paper investigates the construction of professional groups related agriculture and vocational training organizations; Taking the relevant staff of the government and education departments as the object, this paper investigates the characteristics of regional economic development and the revitalization of rural talents; Taking the senior experts engaged in the research of farmers' vocational education as the object, this paper investigates the research hotspots and achievements of farmers' vocational training in China.

4.2. Analysis on the causes of the existing problems in farmers' vocational training

In terms of capital investment, it analyzes the matching degree between the injection rate of financial funds for vocational training and the growth rate of farmers' demand for vocational training, and analyzes the interest connection mechanism between social resources and farmers' vocational training; In terms of guarantee and supervision system, it analyzes the formulation basis and detailed implementation of incentive policy and supervision system; In terms of training forms and methods, this paper analyzes the inapplicability of the traditional vocational training mode and the current farmers' vocational training needs; In terms of training projects and regional talent demand, it analyzes the matching degree between the professional training contents of agriculture and the characteristics of regional economic development. The above contents are shown in Figure 1.

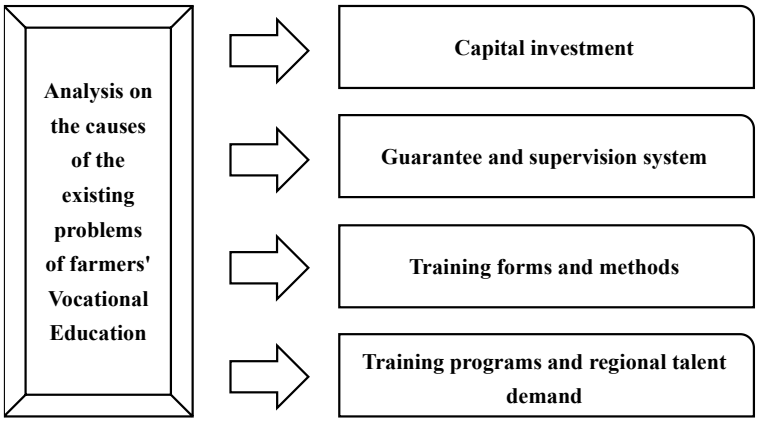

Fig.1 Analysis of existing problems in farmers' vocational training

4.3. Construction of farmers' vocational training system

4.3.1. macro design at the upper level

Local governments can play a leading role and introduce the theory of government ecology, so as to improve the management function and supporting role of the government in farmers' vocational training, and give full play to the publicity and leading role of strengthening the task force for the construction of rural grass-roots party organizations; Through the establishment of a multi subject collaborative education system, as shown in Figure 2, and the establishment of a collaborative education system composed of the government, vocational colleges, enterprises, industry associations and third-party evaluation institutions, mutual recognition of vocational qualification and academic education can be realized, and a systematic and long-term skill improvement system can be established by introducing the credit bank system, So as to realize the through lifelong education and carry out the exchange and mutual recognition of academic certificates and vocational skill level certificates in an orderly manner.

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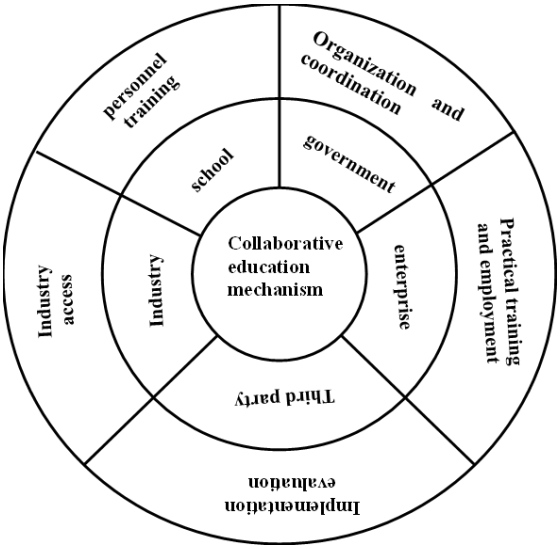

Fig.2 collaborative education mechanism

4.3.2. detailed path at the middle level

In the construction of professional groups, we should build agricultural professional groups around the modern agricultural industrial structure system, build a professional group of skilled talents around the production structure system of modern enterprises, and build a complex professional group ecosystem combined with "Internet plus" and "intelligent intelligence". In terms of training mode construction, the "offline + online", "higher vocational + Secondary Vocational", "school + enterprise / rural" training modes of government supervision, industry access and school enterprise education will be established. In the construction of training content, professional post standards should be integrated into the development of training content to make the training content fully meet the needs of professional standards. Finally, the training content will be built to improve the comprehensive quality of trained farmers, which should be based on professional knowledge, be with professional ability as the core and professional quality as the main line.

4.3.3. improvement measures at the lower level

The training objects will be hierarchical, and the training objects of new professional farmers, management professional farmers and professional service professional farmers will be selected. The diversification of training methods should be realized. We can organically combine offline and online training, in order to realize the recordability, supervision, Q & A, evaluation and testing of the whole process of training and learning. We can make the teaching staff structured and establish a structured training team of "combination of full-time and part-time" and "coexistence of schools and enterprises". We can modularize training resources so as to develop training resources more suitable for farmers. The modular packaging of training resources should be completed to form a course "training package" to facilitate record management and lay a foundation for progressive learning and mutual recognition with academic certificates.

Finally, the executable farmers' vocational training system of "macro design at the upper level, detailed path at the middle level and improvement measures at the lower level" will be completed.

5. Conclusion and Prospect

5.1. Vocational education and training should be inclined to agriculture related majors from the perspective of Rural Revitalization

To realize the Rural Revitalization requirements of industrial prosperity, we must accurately grasp the county pillar industries and characteristic industries, extend the agricultural industry chain, improve the value chain, ensure the supply chain, and improve the interest chain on the basis of the transformation and upgrading of traditional agriculture, in order to realize the integrated development of primary, secondary and tertiary industries in rural areas. The special plan for modern and efficient agriculture in the transformation of old and new kinetic energy in Shandong Province (2018-2022) points out that "The development of modern and efficient agriculture mainly depends on advanced science and technology,

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excellent material equipment, intensive organization and new employees. By lengthening the industrial chain, we can promote green production, improve product quality and economic benefits, so as to accelerate the transformation of agriculture from traditional industry to high-quality and efficient industry". On this basis, farmers' vocational education and training must build a gold lettered signboard of agriculture related majors based on agriculture related majors. Meanwhile, we should update and rebuild timely relevant agriculture related majors, and enhance the fit between the setting of agriculture related majors and the high-quality and efficient development of regional industries on the basis of combining the characteristics of regional economic development. On the basis of traditional characteristic industries, farmers' vocational education and training should provide talent support for the extension and expansion of agriculture related industrial chain, and provide compound professional group support for the construction and development of the whole industrial chain. The characteristic industries of Yangxin County include: Shuiluopo antique furniture production, cattle and sheep animal husbandry and high-quality pear planting. On the basis of cross-border integration and three chain reconstruction, farmers' vocational education and training can provide agriculture related majors such as art design, e-commerce sales, folk tourism, intelligent breeding, deep processing of agricultural products and characteristic catering for the cross-border extension of the traditional industrial chain. This provides talent support for promoting the structural reform of the agricultural supply side and building a modern and efficient agriculture in the transformation of old and new kinetic energy.

5.2. A long-term mechanism for improving farmers' skills is established to consolidate the achievements of poverty alleviation

The opinions of the Central Committee of the Communist Party of China and the State Council on comprehensively promoting rural revitalization and accelerating agricultural and rural modernization pointed out that "we should carry out vocational skills training in depth, so that the people who enjoy the policy of poverty alleviation with the will to find employment and training needs can master at least one skill of getting rich and improve their ability of employment and entrepreneurship". It can be seen that "supporting ambition" and "supporting intelligence" are effective measures to effectively block the intergenerational transmission of poverty and further consolidate the achievements of poverty alleviation. Farmers' vocational education has attracted much attention from farmers because of its diversity of training forms, practicability of training contents and flexibility of training time. It is an important way for farmers to accept "supporting ambition" and "supporting intelligence". Farmers' vocational education should not be a one-time vocational training, but should build a long-term mechanism to improve farmers' skills. The establishment of long-term mechanism can be carried out through the following two aspects: first, we should introduce the credit bank system into Farmers' vocational education and training, and establish and improve the lifelong growth system of farmers' vocational education and training. So that the courses and achievements of farmers in vocational training can be recorded, queried, stored and transformed, so as to realize the hierarchical, progressive and lifelong improvement of farmers' skills. On this basis, further establish a certification system of mutual recognition between vocational skill level and academic certificate. Second, another important aspect of establishing a long-term mechanism for improving farmers' skills and getting rid of one-time training is to provide a series of support methods and incentive policies for the participating farmers after the training process, so as to help and encourage the participating farmers to obtain employment, start a business and continuously improve in their majors. To realize the whole process training service of "mobilization before training, quality assurance during training and support after training" in farmers' vocational education and training is an important guarantee to avoid one-time farmers' vocational education.

5.3. "Internet + agriculture" will become an important direction for occupation training of farmers in the future

The application of Internet technology in farmers' vocational education and training is the need for the continuous renewal of educational methods and training methods, is the need for educational ideas and training models to keep pace with the times, is the need for the development of modern agriculture and the cultivation of new professional farmers, is also the need to comply with the development of the times and promote agricultural modernization. The special plan for modern and efficient agriculture in the transformation of old and new kinetic energy in Shandong Province (2018-2022) points out that "The development of intelligent agriculture should be accelerated. We should vigorously implement the "Internet +" modern agriculture strategy, and apply modern information technology such as Internet of things, cloud computing, big data and mobile Internet, so as to promote the upgrading and upgrading of the whole industrial chain of agriculture. The application of Internet technology in farmers' vocational

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training is mainly reflected in the following aspects. The first aspect is Internet + teaching. In the implementation of farmers' vocational training, Internet technology is used to reform teaching methods and forms. We can use multimedia teaching means and online teaching platform to implement teaching activities and develop online teaching resources, so as to break the space and time constraints of vocational training. The second aspect is Internet + professional. Combined with the characteristics of regional economic development, we can set up science and technology-based and forward-looking agriculture related majors, such as e-commerce, artificial intelligence and new energy, so as to provide reserve talents for the construction of modern intelligent agriculture system. The third aspect is the Internet + production. We can intensify the building of the intelligent agricultural science and technology innovation platform, promote agricultural technology innovation, and organize the research and development institutes of the industry, University and research institutes to develop the Internet of things, precision agriculture and intelligent decision-making, and promote their application in the fields of grain production, livestock breeding, special forest products and efficient economic crops. Through the application of Internet technology in the above aspects, we will eventually build a number of Agricultural Internet of things cloud service platforms and agricultural big data management platforms to improve the guarantee and support ability of remote monitoring, data analysis, soil testing formula and quality and safety traceability of agricultural products.

5.4. Application and promotion in Shandong Province in the future

This paper selects Binzhou City, Shandong Province as the research area to conduct field research, analysis and summary on the development of farmers' vocational education and training. Based on the investigation and analysis of the current situation of farmers' vocational education and training, combined with the big data of farmers' vocational training in 16 cities of Shandong Province and the regional economic and educational development factors of different cities, using the input-output and spatial analysis ideas of econometrics and artificial neural network model, we can analyze and deduce the regional development characteristics and spatial distribution of farmers' vocational education and training in Shandong Province, so as to provide reference for policy formulation and training program promotion. According to the effect feedback of popularization and application, the diagnosis and reform mechanism of farmers' vocational education and training system in Shandong Province can be established to continuously improve and optimize the training system. It provides theoretical basis and path reference for effectively improving the level of farmers' vocational education and cultivating new vocational farmers in our province.

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