

Building an International Talent Pipeline: A Vocational College's International Collaboration Model for Agricultural Cooperation

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Abstract: Heilongjiang Agricultural Economic Vocational College has distinguished itself as a premier institution for developing international skilled talents for agricultural sector with its neighbouring country- Russia. Through a comprehensive approach focused on industry-education integration, the college has built a strong network of partnerships with government agencies, universities, enterprises, and research institutes. This network is embodied in the "1 consortium, 2 platforms, and 3 centers" model, which facilitates collaborative efforts like the Sino-Russian Agricultural High-Tech Demonstration Park and the cultivation of new-type professional farmers for Russia. The college's success in cultural exchange is also noteworthy, with initiatives like Mr. Liu Litao's exhibition in Belarus fostering deeper understanding. Looking forward, the college plans to further solidify its position by establishing a "one consortium, one workshop, and one campus" structure to support the development of key agricultural trade sectors and train skilled talents for Chinese enterprises operating in Russia.

Keywords: Russia-Oriented Vocational Education, Industry-Education Integration, "1 Consortium, 2 Platforms, and 3 Centers" Model

1. Introduction

Focusing on serving the national strategies of the "Belt and Road" and "Four New Economies", Heilongjiang Agricultural Economic Vocational College has vigorously promoted the integration of industry and education (Gao & Zhang 2020), as well as the integration of science, education, and technology. It has built "1 Consortium, 2 platforms, and 3 centers", creating a vocational education brand for Russia-oriented agriculture (Yan-li, 2007) and becoming a vocational education highland for opening up to the north. The college shared its experience at the 2023 EducationPlus International Vocational Education Conference and Seminar on Overseas School-running of Vocational Colleges "Going Out with Enterprises".

2. Main Approaches

2.1 Leading the Construction of an Industry-Education Consortium for Russia-Oriented Agricultural Trade and Commerce

To serve the upgrading of agricultural trade and commerce (Liu & Walsh, 2019) with Russia, we have collaborated with the Economic and Technological Development Zone of Mudanjiang City and Wanding Dairy. We have also partnered with nine government departments, 17 enterprises, two undergraduate universities, three higher vocational colleges, seven secondary vocational schools, and three research institutes to establish an industry-education consortium for Russia-oriented agricultural trade and commerce (Zhou, et al 2023). In 2023, this consortium was approved for provincial-level projects, providing a platform for the coordinated development of regional industry-education integration. Projects such as crop intelligent production and advanced food processing have been approved for provincial-level open industry-education integration practice centers.

2.2 Jointly Building a Sino-Russian Agricultural High-Tech Demonstration Park and Overseas Grain Production Service Base

We have collaborated with the Mudanjiang Branch of Heilongjiang Provincial Agricultural Sciences Academy to establish a Sino-Russian Agricultural High-Tech Demonstration Park, which has been approved as a national-level production-oriented practical training base jointly (Sachan & Xing, 2018) built by schools and enterprises. We have also partnered with enterprises such as Dongning Huayang Trading Co., Ltd. to establish an overseas (Far East region of Russia) grain production service base (Qiao, 2020). We have showcased six production projects for Russian soybeans, corn, etc., promoted 10 new grain crop varieties, nine new technologies, and developed three agricultural technology training packages for Russia.

2.3 Building a Center for Talent Development, Technical Services, and Cultural Exchange

2.3.1 The Reservoir Role of the Talent Development Center is Prominent

Collaborating with Russian Speedy Intelligence Technology Co., Ltd., we have jointly established a comprehensive service center for cross-border digital trade (Nicholson & Noonan, 2017). We have also partnered with Alibaba, Neworient Technology, and others to build the Alibaba Rural E-commerce Industry College and the Digital-Intelligent Agriculture and Commerce Industry College. We have conducted a series of agricultural technology training programs targeting Russia, and have cooperated with local governments in Dongning, Ning'an, and other areas to cultivate over 2,000 new-type professional farmers at the college level (Zhang & Liu, 2017).

2.3.2 The Gas Station Effect of the Technical Service Center is Evident We have selected and bred 10 new crop varieties for Russia, obtained 32 patents, developed 5 new grain products, carried out 20 horizontal research projects, tackled 21 industrial technology challenges, and provided technical services to over 4,000 people in Russia.

2.3.3 The Lubricating Function of the Cultural Exchange Center is Enhanced Relying on the college's national-level cultural science popularization (Tang, 2019) exhibition hall and the Sino-Russian Agricultural High-Tech Demonstration Park, we have created four branded projects for agricultural cultural exchanges with Russia. Mr. Liu Litao, a teacher at the college, held a solo exhibition and three Chinese painting master classes at the Palace of the Republic Gallery in Belarus, with over 300 participants. He received congratulatory letters from the Special Envoy of the Chinese Embassy in Belarus and was reported by the Belarus National Television and other media outlets.

2.3.4 Next Key Work

We will focus on establishing "one consortium, one workshop, and one campus" to serve the construction of "three bases, one barrier, and one highland."

- a. **One Consortium: Well-built Consortium for Russia-Oriented Agricultural Trade and Commerce Industry-Education Integration**

With the support of the Mudanjiang Municipal Government, we will further innovate the institutional mechanisms and explore the formulation of a series of policies, systems, standards, and models for vocational education integration and precise services for Russia-oriented agricultural trade and commerce. We will prioritize the development of a green food (Lin, et al 2010) and e-commerce industry-education integration community, as well as key professional clusters in smart agriculture, green food, commercial logistics, and cultural tourism creativity.

- b. **One Workshop: Russian "Kaiwu Workshop"**

We will select high-quality institutions to jointly establish a Russian "Kaiwu Workshop" to export Chinese vocational education standards and cultivate compound international talents for Chinese enterprises going global.

- c. **One Campus: Suifenhe Branch Campus**

We will thoroughly implement the important speech spirit of General Secretary Xi Jinping's call to "support the establishment of new vocational education institutions in border cities." We will establish a branch campus in Suifenhe to create a frontier position for Russia-oriented vocational education services, laying the foundation for striving to become a vocational education undergraduate institution.

2.4 Funding Projects

- 1) Interim research results of the "Improving Internationalization Level" phase of the "Double High" College Construction Project at Heilongjiang Agricultural Economic Vocational College.
- 2) Interim research results of the Heilongjiang Provincial Higher Vocational Education Teaching Reform Research Project titled "Practical Exploration of 'Chinese + Vocational Skills' Projects in Agriculture-Related Higher Vocational Colleges" (Project Number: SJGZY2022185).
- 3) Horizontal research project: Interim research results exploring the path and direction of international curriculum development and promotion.
- 4) Horizontal research project: Interim research results of the exploration and practice of exporting Chinese vocational education standards.

3. Conclusion

Heilongjiang Agricultural Economic Vocational College serves as a model for vocational institutions seeking to internationalize their programs. By prioritizing industry-education collaboration, cultivating skilled professionals, and fostering cultural exchange, the college has established a successful framework for cooperation with Russia. The college's "1 Consortium, 2 platforms, and 3 centers" model provides a valuable blueprint for other institutions seeking to build robust international partnerships. The college's future plans, including the "one consortium, one workshop, and one campus" initiative, demonstrate its commitment to continuous improvement and expansion of its Russia-oriented programs. Continued success in these endeavors will contribute significantly to the development of a highly skilled workforce that can navigate the complexities of the global agricultural trade landscape.

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Conflict of Interest

The authors declare no conflicts of interest.

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