

Integrating Introduction and Export, Guided by Standards, Supported by Platforms, and Focused on Skills. Innovating New Modes of International Exchange and Cooperation

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Abstract: This article describes a college's innovative model of international exchange and cooperation in vocational education. The model focuses on combining introduction (importing best practices) and export (sharing Chinese expertise), guided by standards, supported by platforms, and focused on skills development. The college implements this model through various initiatives, including curriculum development based on international standards, industry collaboration for practical training, and talent cultivation programs for international students. This approach has resulted in the college being recognized for its high level of internationalization and its contributions to Heilongjiang Province's efforts to expand its international presence.

Keywords: Internationalized Vocational Education, Skills-based Learning, Standards and Platforms

1. Introduction

The college actively serves the high-quality development of the "Belt and Road" initiative, actively participates in the construction of the "China-Mongolia-Russia Economic Corridor" and the China (Heilongjiang) Pilot Free Trade Zone. It deeply implements the introduction of quality educational resources (Atenas, et al 2014), the export of standards, and the promotion of cultural exchanges between China and foreign countries.

The college has explored a new model of international exchange and cooperation that combines introduction and export, guided by standards, supported by platforms, and focused on skills. This has enhanced the college's internationalization level and contributed to Heilongjiang's efforts to create a new high ground for opening up to the north. To further strengthen its internationalization strategy, the college has forged partnerships with renowned institutions across Central Asia, Eastern Europe, and Southeast Asia.

These collaborations focus on curriculum alignment, joint research, and student-faculty exchanges that promote mutual understanding and shared development. By aligning its educational offerings with international benchmarks and qualifications, the college ensures that its students are equipped with globally recognized competencies, enhancing both their employability and cross-border mobility. In support of this international framework, the college leverages digital and physical platforms such as bilingual e-learning environments, international training bases, and cross-border innovation hubs.

These platforms serve as bridges for integrating global resources and disseminating Chinese vocational education standards abroad. They also provide practical opportunities for students and faculty to engage in transnational projects, skill-building programs, and intercultural activities that reflect the institution's commitment to high-quality, applied education on an international scale.

At the core of this cooperative model is a strong emphasis on skill development tailored to global industry needs. The college actively incorporates international occupational standards into its training modules, while inviting experts from partner countries to participate in curriculum co-design and co-teaching. This approach ensures not only the transfer of technical knowledge but also the cultivation of soft skills such as communication, leadership, and intercultural competence crucial for navigating today's global workforce. Through this multifaceted strategy, the college is setting a precedent for how institutions can effectively innovate new modes of international exchange and cooperation.

2. Main Approaches

2.1 Combining Introduction and Localization to Promote the Practical Application of International Technologies in the Local Context

2.1.1 Focusing on Content Development, Strengthening the Apprenticeship Pilot Program through "Importing"

The college has established three overseas teacher training bases in Northwest Swiss University of Applied Sciences and Arts and other locations. These bases have provided special training in modern apprenticeship for key teachers in the college as well as for the core teachers of the modern agricultural vocational education group led by the college (Thwala, 2017), aiming to enhance teachers' ability to implement apprenticeship programs. The automobile inspection and maintenance technology major has introduced German handcraft industry association's standards for automobile talent cultivation, upgraded 20 traditional courses on maintenance, service marketing, and new energy, and cultivated 565 composite talents. Drawing on the apprenticeship teaching models of Switzerland and Germany, the college has comprehensively launched pilot programs for modern apprenticeship with Chinese characteristics in 38 majors, cultivating 5,241 students (apprentices).

2.1.2 Promoting Achievement Transformation through "Importing" Based on the Training Package Development Model

The college has undertaken the national key project of agricultural vocational education during the 13th Five-Year Plan period, the development pilot project of the "Australian Agricultural Vocational Education Training Package." The "Rural Business Training Package" is a corresponding standard system for agricultural (rural business) qualifications under the Australian Qualifications Framework (Pratley, 2013). The college has introduced the Australian "Rural Business Training Package" development model, sorted out the corresponding positions of the rural business training package, formulated international talent cultivation standards, reconstructed the "rural business" teaching content based on the rural business operation process, and developed international teaching resources (standard package, resource package, guide package). On the basis of publishing the "Rural Business" textbook, the college has developed a localized practical school-based textbook, "Operation of Agricultural Product Stores," and conducted pilot applications in majors such as agricultural economic management.

2.1.3 Emphasizing Local Practice and Innovation, Promoting Agricultural Technology Upgrading through "Importing"

The college focuses on introducing world-leading agricultural technologies, standards, and specifications. It has introduced the latest breeding achievements of Japanese rice and strawberry and other horticultural crops, vegetable varieties such as tomatoes, peppers, and cucumbers selected and bred by Rijk Zwaan of the Netherlands, and advanced cultivation techniques such as water-saving irrigation and intensive planting from Israel into the construction of practical training bases and industry-education integration project platforms (Weiwei & Chen, 2020). It has upgraded smart greenhouses, built new winter-warm energy-saving sunlight greenhouses, plant factories, and other teaching, scientific research, and innovation service platforms. It has promoted and applied four advanced cultivation models such as vertical cultivation, hydroponics, and aeroponics, and introduced and domesticated nine new varieties of crops such as rice, strawberries, and grapes. Through the guidance of advanced standards and local practice and innovation, the college has cultivated more than 1,100 composite talents

2.2 Guiding with Standards to Create an International Brand for Chinese Agricultural Vocational Education

Relying on the college's status as a member of the ITEA (International Tertiary Education Alliance) and as a governing unit of the International Exchange Alliance for Vocational Education Curriculums, we leverage the leading role of our high-level professional groups to develop and continuously export four mutually interchangeable and shared professional standards (Branch, 2013), 20 curriculum standards, five internationalized courses such as "Cross-border E-commerce," and two internationalized textbooks, "E-commerce Operational Practice" and "E-commerce Data-driven Operations." We have also developed three agricultural planting technology standards for Russia, three technical and skills training

packages, and hosted the development of four vocational standards for the Gambian nation in Africa, including "Food Inspection and Testing Technician." These have formed Chinese standards and solutions with a "rural economy imprint," enhancing the college's international influence and radiation power. The college has received a thank-you letter from the Gambian Ministry of Education.

3. Platform Support to Build a Carrier for International Capacity Cooperation

Serving the "Belt and Road" initiative and fostering an open highland to the north, we actively promote going overseas with enterprises to create the Longjiang "Vocational Education Going Overseas" brand and establish the "1 Consortium, 1 Workshop, 1 Valley, and 2 Bases" model. The "1 Consortium" refers to the college's collaboration with the Mudanjiang Economic and Technological Development Zone and Wanding Dairy to jointly build a Russian-oriented agricultural commerce and industry-education consortium (Zhao, 2024). The "1 Workshop" is a collaboration with the Malacca Technical University in Malaysia and Alibaba (China) Education Technology Co., Ltd. to establish the Malaysia "Kaiwu Workshop." The "1 Valley" is a collaboration with the National E-commerce Industry Steering Committee and Beijing Bodao Qiancheng Information Technology Co., Ltd. to build the "Belt and Road" E-commerce Valley (Mudanjiang) Center. The "2 Bases" refer to the Sino-Russian Agricultural High-tech Cooperation Demonstration Park and the overseas (Russian Far East) grain production service base, co-built with the Mudanjiang Branch of the Heilongjiang Academy of Agricultural Sciences and the Far East Agricultural Biotechnology Research and Technology Center of the Russian Federation. The "1 Consortium, 1 Workshop, 1 Valley, and 2 Bases" provide a platform for deepening international industry-university-research cooperation, offering support for talent cultivation and technical services.

4. Emphasizing Skills to Foster Internationalized Compound Talents.

4.1 Balancing Chinese Proficiency and Skills to Train International Students in Bangladesh

The college aims to cultivate compound talents who excel in both Chinese proficiency and practical skills. With a focus on enhancing the job readiness of international students (Jackson & Greenwood, 2015), the college has constructed a curriculum system that emphasizes the reinforcement of Chinese proficiency throughout the learning process and progressive cultivation of skills. The college innovates the "five-in-one, four-party linkage" talent cultivation model for international students. The "five-in-one" approach integrates the cultivation of Chinese language proficiency, professional knowledge and skills, innovative abilities, cultural awareness of Chinese culture, international perspective, and sustainable development capabilities. The "four-party linkage" refers to the collaboration between the college's international cooperation and exchange office (Edelson, 2003), foreign language teaching team, professional departments, and the internship base of Harbin Engineering University for international students. Through this collaboration, the college has successfully cultivated 23 international students from Bangladesh, employing various measures to ensure a smooth transition from undergraduate to postgraduate education and comprehensive cultivation.

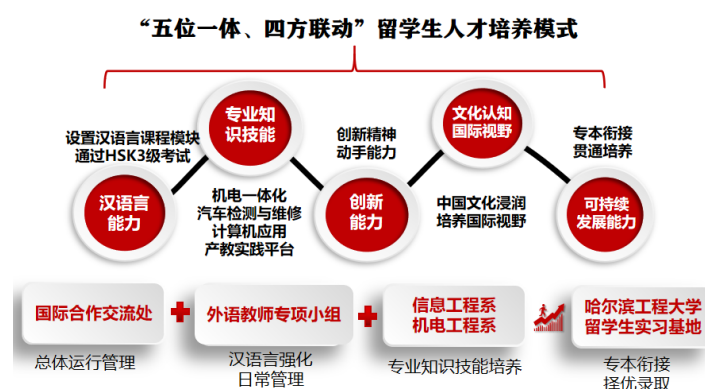


Fig. 1 - Undergraduate to postgraduate education and comprehensive cultivation.

4.2 Developing Internationalized Majors to Foster Compound Talents

The college offers distinctive majors such as customs affairs and foreign trade services, cross-border e-commerce, etc (Yu, 2018). Collaborating with leading companies such as JD.com, the college has established a JD Smart Supply Chain Operation Center. Working with Rosutong Intelligence Technology Co., Ltd., it has built the Rosutong Cross-border Trade Industry College. Jointly with Alibaba (China) Education Technology Co., Ltd., the college has established the Alibaba Rural E-commerce College. In 2022, it was selected as one of the first provincial model industrial colleges in

Heilongjiang Province, cultivating a batch of compound high-quality technical and skilled talents who are competent in cross-border trade, international logistics, and other fields.

4.3 Integrating Advantages to Develop Overseas Education Projects

Serving outstanding enterprises in their overseas expansion (Luo & Tung, 2007), the college has developed overseas education projects such as the "Kaiwu Workshop" in Malaysia and the "Chinese + Vocational Skills" demonstration school in China-Thailand cooperation. Guided by demand and standards, the college conducts professional collaboration in a high-quality and efficient manner, jointly developing talent cultivation programs and curricula for e-commerce majors that meet the local needs of Thailand and Malaysia. It also conducts teacher training and vocational skills training, supporting the overseas expansion of Chinese e-commerce enterprises.

5. Achievements

The college has been selected as one of the first pilot institutions for the Sino-German Advanced Vocational Education Cooperation Project, a demonstration school for the Sino-Thai "Chinese + Vocational Skills" Project, an initiating member of the National "Luban Workshop" Construction Alliance, and a leading unit for two projects of "Self-Awareness" and "Core Competency Enhancement" under the cooperation between the Ministry of Education and the United Nations Children's Fund in youth education. The college has been recognized as a vocational school with a high level of internationalization in Heilongjiang Province in 2023, receiving two provincial-level internationally influential vocational education standards and four resources. The Sino-Russian Agriculture, Commerce, and Industry Consortium has been approved as a provincial-level project, the Customs Affairs and Foreign Trade Service major has been approved as a national-level key major, and the Sino-Russian Agricultural High-tech Demonstration Park has been approved as a national-level school-enterprise co-constructed production and training base, significantly enhancing its capabilities in serving the opening up to the north and accompanying enterprises to go global.

6. 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.

7. Conclusion

The college's model demonstrates the effectiveness of international collaboration in enhancing vocational education. By combining international best practices with local expertise, the college provides students with a well-rounded education that prepares them for success in the global workforce. The model also serves as a valuable example for other institutions seeking to internationalize their vocational education programs.

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Conflict of Interest

The authors declare no conflicts of interest.

References

- Atenas, J., & Havemann, L. (2014). Questions of quality in repositories of open educational resources: a literature review. *Research in Learning Technology*, 22, 20889. <http://dx.doi.org/10.3402/rlt.v22.20889>
- Branch, A. E. (2013). *Export practice and management*. Springer.
- Edelson, P. J. (2003). *International Collaboration in Higher Education: An Overview of Critical Issues*.

- Jackson, D., & Greenwood, K. (2015). Enhancing work-integrated learning outcomes for international students in Australia. Edith Cowan University Funded by the Australian Collaborative Education Network (ACEN).
- Luo, Y., & Tung, R. L. (2007). International expansion of emerging market enterprises: A springboard perspective. *Journal of international business studies*, 38, 481-498.
- Pratley, J. (2013). Review into agricultural education and training in New South Wales Report.
- Thwala, W. M. (2017). Agriculture Vocational Education Programme and the Promotion of Job Creation Skills in the Free State Technical Vocational Education and Training College (Doctoral dissertation, University of Fort Hare).
- Weiwei, J., & Chen, L. (2020). Research on project-based curriculum based on the integrated design platform of industry and education. In *Education and Awareness of Sustainability: Proceedings of the 3rd Eurasian Conference on Educational Innovation 2020 (ECEI 2020)* (pp. 623-626).
- Yu, T. (2018). A case study of B2C cross-border e-commerce challenges in China from Customs to consumers. *World*
- Zhao, X. (2024). Study on the matching degree of major groups and industrial groups in higher vocational colleges. *Heliyon*, 10(8).