

Create a New Paradigm of International Cooperation in Digital Education, Standards Leading, Resources Sharing and Platform Supporting

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Abstract: This article describes Heilongjiang Agricultural Economy Vocational College's innovative approach to international cooperation in digital education. The college's model, "Standards Leading, Resources Sharing, Platform Supporting," emphasizes developing and sharing high-quality digital resources aligned with international standards. The college has established the "Malaysia Kaiwu Workshop" as a model for collaborating with foreign institutions to train skilled talents and build the vocational education brand of Heilongjiang Province. This approach has led to the development of several internationally recognized vocational education standards and resources, fostering deeper collaboration with countries like Russia and Malaysia.

Keywords: Digital Education, Standards-based Curriculum Development, Kaiwu Workshop Model

1. Introduction

Heilongjiang Agricultural Economy Vocational College attaches great importance to international cooperation in digital education (Selwyn, 2012) and has innovated a new paradigm of "Standards Leading, Resources Sharing, Platform Supporting".

Firstly, strengthens standard leading. The college has promoted 4 professional standards and 20 curriculum standards for interoperability and sharing. The teaching group has participated in the "African National Occupational Standards Development Project - the Gambia", and has presided over the development of four occupational standards that have been certified by the National Accreditation and Quality Authority of Gambia (NAQAA).

Secondly, emphasizes resources sharing (Czajkowski, et al 2001). Taking full advantages as the member units of the International Exchange Alliance for Vocational Education Curriculum, the college have developed and shared 5 international courses in both Chinese and English and participated in the development of 2 international textbooks in both Chinese and Thai languages.

2. Measures

2.1 Utilize the Advantages of National High-Level Professional Groups

(Wang, 2021) and promote high-quality digital resources As the member unit of the ITEA (International Transaction Education Association) and the International Exchange Alliance for Vocational Education Curriculum, the college leverages its leading role in high-level professional groups, has developed and promoted 4 professional standards and 20 course standards for crop production and management that are interconnected and shared.

And also, the college has presided over the development of four occupational standards: Logistics Management Technician (NTA 6), Smart Logistics Technician (NTA 4) and Food Inspection and Testing Technician (NTA 4), Livestock Veterinary Technician (NTA 5). All those standards combine the school characteristics with the development of labour force in Gambia, thus international influence has been enhanced and has received national accreditation from NAQAA.

Besides, the college has developed five international courses (bilingual in Chinese and English) on the Xuetao Online International Edition Course Platform, including "Dessert Master's Guide - Baking Food Culture and Processing

Technology", "Cross border E-commerce", "Agricultural Product Foreign Trade", "International Marketing", and "Ice and Snow Adventures - Northeast Ice and Snow Tourism Resources and Culture".

Moreover, the college has participated in the development of two international textbooks, "E-commerce Operation Practice" and "E-commerce Data-driven Operation", in both Chinese and Thai languages. The teaching group have also developed three planting technology standards and three technical skill training packages for Russia.

2.2 Jointly build “Malaysia Kaiwu Workshop” and create an overseas brand for Vocational Education in Heilongjiang.

The colleges serve the "Belt and Road" initiative, accelerate the exchanges and cooperation in vocational education and training with Malaysia, and actively connect with and serve Chinese "going global" enterprises.

Cooperating with Alibaba (China) Education Technology Co., Ltd. and Universiti Teknikal Malaysia Melaka, “Malaysia Kaiwu Workshop” has been settled to closely combine talents training with society needs (Jiang, et al 2019), school teaching with enterprise peers (Westheimer, 2008). Those three parties have jointly built and shared the experience and achievements of vocational education reform and development in the field of e-commerce, and created the overseas brand for Vocational Education's in Heilongjiang.

The three parties have together developed a professional teaching standards for e-commerce talents, and six core course standards for e-commerce professionals that meet the local needs of Malaysia, including "Short Video Shooting and Production", "E-commerce Operations", "E-commerce Data Analysis", "Visual Marketing", "Customer Service and Management", and "Supply Chain and Logistics Management".

“Kaiwu Workshop” has successfully promoted and shared Chinese standards and teaching resources of e-commerce majors, trained e-commerce teachers, cultivated e-commerce technology skilled talents who are familiar with e-commerce technology, understand Chinese culture and skills. In this way, the program has provided better talent support for the development of Chinese e-commerce enterprises such as Alibaba in Malaysia, accelerated cultural exchanges and deep cooperation in vocational education between China and Malaysia, and enhanced the international influence of Chinese vocational education.

2.3 Main Achievements and Innovations

Combine talent training with society needs, digital education helps Heilongjiang in building a new highland for opening up to the north Serving the "the Belt and Road" initiative, the college deepens exchanges and cooperation with Russia, and focuses on building a provincial agricultural commerce and trade municipal industry and education consortium (Campus, 2014) with Russia. School, enterprise and industry jointly build a Sino-Russian agricultural high-tech cooperation demonstration park, an overseas (Russian, Far East) grain production service base.

The college has developed 3 planting technology standards for Russia, 3 technical skills training packages, and has trained 1652 Russian talents. Thus, assists in building an industry chain characterized by "overseas planting, grain back transportation, and domestic processing".

Besides, the college has shared its experiences in the international seminar “2023 Education Plus International Vocational Education Conference” and “Going aboard with Enterprises” for Vocational Colleges.

2.4 Mode sharing, closely integrate digital education with the creation of the "Kaiwu Workshop" vocational education brand

Actively promoting the cooperation mode of Malaysia's "Kaiwu Workshop" with other Chinese institutions, co-building and sharing the experience and achievements of vocational education reform (Sirakaya & Kilic Cakmak, 2018) and development, the "Kaiwu Workshop" project has been highly recognized by the Heilongjiang Provincial Department of Education.

Heilongjiang Provincial Department of Education has learned from the cooperation mode of Malaysia's "Kaiwu Workshop", jointly with Heilongjiang Provincial Department of Finance and the Foreign Affairs Office of Heilongjiang Provincial People's Government, issued the Notice on Guiding Opinions on Promoting Vocational Colleges (Zeng, 2024) to Carry out "Kaiwu Workshop" Construction Overseas, which emphasizes anchoring the strategic needs of serving the country's "the Belt and Road", and serving the "going out" Chinese enterprises.

Combining talents training with society needs (Jia, et al 2023), school teaching with enterprise peers, "Kaiwu Workshop" has played an active role in promoting Chinese and foreign vocational education cooperation with training exchanges, thus to create of the vocational education brand of Heilongjiang Province.

By 2025, ten "Kaiwu Workshops" will be successfully built and the overseas cooperation mode of Heilongjiang Province will be initially formed.

3. Main Achievements

3.1 Two professional standards have been approved by the Provincial Department of Education

Food Inspection and Testing Technician (NTA 4), Logistics Management Technician (NTA 6), these two standards developed in “African National Occupational Standards Development Project – the Gambia”, have been selected for the list of internationally influential vocational education standard construction projects in Heilongjiang Province in 2023, and have been recommended for national project selection.

3.2 Four courses have been approved by the Provincial Department of Education

Four national courses, including "Dessert Expert Guide", "Cross border E-commerce", "Ice and Snow Adventures - Northeast Ice and Snow Tourism Resources and Culture", and "Agricultural Product Export Business", have been selected for the list of vocational education resource projects (Ahmad, et al 2023) with international influence in Heilongjiang Province in 2023, and have been recommended for national project selection.

3.3 The college has been approved as a provincial high level in internationalization

The college has been selected for the list of vocational schools with a high internationalization level in Heilongjiang Province in 2023, and has been recommended for national project selection.

3.4 Six Malaysian e-commerce teachers have come for further training

Together with Alibaba (China) Education Technology Co., Ltd., the college has completed a total of 230 hours of training for 6 Malaysian professional course teachers, including 60 hours of offline training and 170 hours of online training. The Malaysian teachers have reached the level of independently undertaking teaching tasks with Chinese e-commerce standards.

4. Main Difficulties and Challenges

- a. Lack of high-level bilingual teachers.
- b. Significant differences in language, culture, policies, and other aspects among cooperating countries.

4.1 Fund Projects

- a. The phrase research achievement of Heilongjiang Agricultural Economy Vocational College in "Double High-level" Vocational Colleges Construction Project in terms of “Enhance internationalization level.
- b. Teaching Reform Research Project of Higher Vocational Education in Heilongjiang Province: “Practical Exploration of Chinese & Vocational Skills Training Programs in Agricultural Vocational Colleges” (Project Number: SJGZY2022185).
- c. Crosswise projects: The phrase research achievement of “Exploration the Path and for and Direction of International Curriculum Construction and Promotion”.
- d. Crosswise projects: The phrase research achievement of “Exploration and Implementation of Internationalization of Chinese Vocational Education Standards”.

5. Conclusion

Heilongjiang Agricultural Economy Vocational College's model demonstrates the potential of digital education to enhance international cooperation in vocational training. By combining standardized curriculum development with resource sharing and collaborative platforms, the college has successfully trained international talents and established a strong vocational education brand. The "Kaiwu Workshop" model provides a valuable framework for other institutions seeking to expand their international reach and contribute to a globally skilled workforce. However, challenges remain, such as the need for more bilingual teachers and navigating cultural and policy differences. Overcoming these challenges will be crucial for further success in this innovative approach to international vocational education.

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Conflict of Interest

The authors declare no conflicts of interest.

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