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On the International Cooperation of Baotou Vocational and Technical Colleges

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ABSTRACT

Economic Globalization makes the internationalization of higher vocational education an inevitable trend. However, there are some problems with the international cooperation of Baotou's higher vocational schools. This paper analyzes the effective modes of the international cooperation of the Higher Vocational Colleges in Baotou from the perspective of the foreign language proficiency of teachers and students, the construction of teaching staff, the cooperation between schools and enterprises, the investment of funds, the renewal of ideas, and the Sino-foreign cooperation in running schools.

1. Introduction

Baotou is the biggest industrial city in the Inner Mongolia of China, which has formed six pillar industries: steel, rare earth, aluminum, equipment manufacturing, power, and coal chemical industry. During the 13th five-year plan period, Baotou will strive to become a strategic fulcrum to open up to the north and west for the autonomous region, if it can make full use of the advantages of the joint city of the China-Mongolia-Russia Economic Corridor and the nearest northern port of the Hohhot- Baotou-Ordos economic circle, actively integrating into the national "Belt and Road" strategy. For this, Baotou is in urgent need of skilled personnel, modern service industry and information technology personnel,

as well as those who understand foreign languages and international development. In order to meet these needs, Baotou higher vocational colleges need to speed up the development and urgently need to learn new ideas, new specialties, and new knowledge, need to broaden their horizons, learn from the world, to achieve international cooperation.

There are three higher vocational colleges in Baotou: Baotou Vocational and Technical College, Baotou Light Industry Vocational and Technical College and Baotou Railway Vocational and Technical College. In 2017, the three colleges had 25,981 full-time students and 2,328 teachers, offering more than 70 majors in 16 major categories including equipment manufacturing, iron and steel metallurgy, power equipment, environmental protection

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and chemical industry, transportation, civil engineering, finance and economics, tourism, art design, information technology, etc.

The Outline of National Medium and Long-term Education Reform and Development Plan (2010-2020) points out that China's higher vocational education should "strengthen international exchanges and cooperation."^{[1] ①}

Under the guidance of national policy, the pace of international cooperation of higher vocational education is quickening, but there are also many problems.

2. Problems Existing in the International Cooperation of Higher Vocational Colleges

2.1 The Weak Foreign Language Proficiency of Teachers and Students in Higher Vocational Colleges is the Bottleneck of the Internationalization of Higher Vocational Education

Most of the teachers in higher vocational colleges are non-foreign language majors, their English level is not high, and they do not have the ability to teach specialized courses in English or in bilingual language in foreign exchange and cooperation, or to communicate with foreign experts and foreign teachers in foreign languages. While using foreign language teachers to substitute, they are not proficient in the teaching of professional courses, and the process of internationalization of Higher Vocational Colleges has been delayed.

Students in higher vocational colleges generally have low English entrance scores and poor foundation, so they can't use English to listen to specialized classes in the international cooperation schools. For example, the overall English level of the new students enrolled in Baotou Vocational and Technical College is low. The total score of English in the college entrance examination is 150 points. Some students score only about 20 or 30 points in English, and 60-70 points are high scores. The realization of international cooperation in higher vocational colleges requires students to have a high level of English, whether they go abroad for further study or carry on professional courses for Chinese students taught by foreign teachers in Chinese-foreign cooperation in running schools. Their basic level of English should reach 5.5 points of IELTS. This huge gap is the first difficult point to break through for higher vocational colleges to achieve international cooperation.

2.2 Insufficient Co-operation between Schools and Enterprises

Although the vocational colleges in Baotou have estab-

lished long-term cooperative relations with many enterprises such as Mengniu Dairy Company, China Ordnance Inner Mongolia No. 1 Machinery Manufacturing Group Corporation, Inner Mongolia North Heavy Industry Group, Baotou Steel and coal chemical enterprises, etc.. A large number of internship and employment positions are provided for students. However, there are still many problems in the cooperation between schools and enterprises, such as the lack of integration between vocational education and enterprise development.

Enterprises participate in higher vocational education, often pay a lot of training costs. For enterprises, this is undoubtedly an additional expenditure, so enterprises do not think it worthwhile. Also, due to the lack of awareness of the benefits of school-enterprise cooperation, as well as the high pressure of work and everyone having a role to play, enterprises are usually reluctant to allocate their manpower to participate in the study and training of students during their school years, also will not take the initiative to participate in the school talent training program, the students' curriculum, the practice plan formulation and so on. At most, when students come to work as interns in enterprises, enterprise personnel give some guidance, but also do not want to in-depth training, often go through the motions in a mere formality. The talents trained by the school can't fully meet the requirements of enterprises.

Traditionally, enterprises have only been engaged in production and new product development, while universities have been engaged in teaching and research. But the experience of these years fully shows: the research and development of enterprises is behind, and the teaching and scientific research of colleges is often out of touch with the actual production.

How to take the cultivation of students as a link, how to closely combine production with teaching and research and how to cooperate deeply with Chinese and foreign enterprises is the problem that higher vocational education is trying to solve.

2.3 The Lack of Funds Makes the Internationalization of Higher Vocational Education Lack of Impetus

Since most of the funds in higher vocational colleges are allocated by the state, the majority of the funds are used for the payment of teachers' salaries, and few funds are used for the investment of higher vocational internationalization projects. Due to the lack of funds, the necessary conditions for internationalization are often not met, not conducive to the development of international projects.

According to the China Business Industry Research Institute's big database, although China's investment in education continues to increase, the country spent 2,290.6

billion Yuan on fiscal education in 2014, 4.1 percent increase over the previous year. In 2018, the national fiscal expenditure on education totaled 3,222.2 billion Yuan, 6.7 percent increase over the previous year.

There is a basic line to measure the investment in education in the world, that is, when the per capita GDP reaches 800 -1000 US dollars, the proportion of financial expenditure on education to GDP will reach 4.07%-4.25%, which can realize the sound development of education and economy.

China's per capita GDP has long been in the range of 800 -1000 US dollars, but the proportion of financial education expenditure in GDP has not reached the international standard of 4.07%-4.25%. Thus, China's total investment in education has increased year by year, but relative to China's increasing education demand is still insufficient. The government has invested most of its limited funds in key universities, and the investment in higher vocational colleges is far from enough. For the development of higher vocational education in China, for the internationalization of Higher Vocational Colleges, and for the enhancement of their international popularity, more money must be poured into the vocational education.

2.4 Stereotype and People Look down on Blue Collar Workers in Traditional Society

Chinese tradition has always had the concept of "all things are inferior, only study is high." Civil servants are regarded as the best of all professions, highly respected. they looked down upon the personnel of other industries, looked down upon skilled workers, this leads to the neglect of vocational education, which is devoted to the training of applied talents such as technicians and skilled workers, resulting in low scores and poor quality of students enrolled in higher vocational colleges, which limits the pace of the development of higher vocational education in China, it also restricts the development of internationalization of Higher Vocational Colleges.

3. The Solution of International Cooperation in Baotou Higher Vocational Colleges

In view of the above problems, the effective ways for Baotou's higher vocational colleges to achieve international cooperation are as follows.

3.1 To Improve the Foreign Language Proficiency of Teachers and Students, and to Build an International Contingent of Teachers

Internationalization requires teachers and students to have a high level of foreign language. In order to improve

students' interest in learning English, we can perform English short play, make English speech contest, English song singing contest, English fun dubbing contest, watch English original movie, imitate international companies and so on.

Through long-term and short-term overseas study tours, winter camps, summer camps, intensive courses in English for Chinese-foreign cooperation, participating in international skills competitions, the exchange of students and teachers between China and foreign countries, for example, the exchange of students and teachers, cultural communication, mutual training and so on of the Baotou Vocational and Technical College and the Canadian Camosun College. Another example, the Baotou Light Industry Vocational and Technical College has actively explored international cooperation channels, established cooperative relationships with more than 40 institutions in more than 10 countries, including Mongolia, South Korea, Russia, the United States and Malaysia etc., and sent students to each other, we can enhance the international atmosphere of the college by introducing the overseas students. We can improve the students' foreign language level through above activities and online long-distance courses as well.

For example, on the evening of 22 November 2018, Baotou Vocational and Technical College and Northern Virginia Community College conducted a second long-distance Video Lecture and interaction in Room A413 of the International College. On Thanksgiving Eve, Dean Jimmie McClellan used this as a starting point to introduce students from Business English Class 917131 American customs and traditions. Students were interested in Jimmie's lecture, and they asked a lot of questions and expressed their opinions. After class, the students said that such an online activity not only gave them the opportunity to practice English listening and speaking, but also could broaden their horizons and enhance their knowledge. With the continuous progress of science and technology, our teachers and students have the opportunity through the network to complete the "across time and space" exchange, and students can feel close to the atmosphere of the American classroom.

To improve the foreign language level of teachers, we can send teachers to study in developed countries as visiting scholars, participate in international organizations, and attend international conferences: for example, the International Conference for the Development of Vocational Education Supported by UNESCO, participate in transnational and cross university research projects, publish articles in international academic journals, cooperate with developed countries, for example, the

project of China-Canada Post-High School Vocational Education Cooperation, (China has 29 schools and Canada has 32 participated.) The two countries send teachers to each other's schools to train each other and other activities to improve teachers' foreign language and international standards.

The internationalization of higher vocational colleges requires the cultivation of high-skilled and applied talents with international vision, which requires our higher vocational colleges to establish a "double-qualified" international teaching staff.

We should learn from the experience of Singapore's Higher Vocational Colleges. In Singapore, 80% of the higher vocational college teachers have been managers or backbone of the enterprises. They teach in the school, to the enterprise to solve problems, is the real "double-division". Without the practical experience and achievements of enterprises, it is very difficult for Singapore's college graduates to take up the profession of teachers in higher vocational colleges. Singapore has also established a lifelong learning system. Every two to three years, professional teachers make some research and development of industrial projects to enrich themselves in production practice. Emphasis is also placed on the internationalization of teachers by encouraging and creating opportunities for them to teach overseas, study or work in overseas enterprises part-time^{[2] ②}.

From the experience of Singapore, we recruit elites from Chinese and foreign enterprises to join teacher staff in higher vocational colleges, encouraging teachers to join Chinese and foreign enterprises for attachment training and practice, etc.. So as to change the lack of production and practical ability of teachers, and the problem of out-of-step the production we should combine production, learning with research and really broaden the international perspective of teachers.

We will also invite business leaders, and experts to give lectures, exchange experiences and impart knowledge and skills.

We should employ foreign teachers through social recruitment and recommendation by foreign experts, and employ returnees from studying abroad to join our international teaching force, let them directly take the international advanced teaching experience, international knowledge, international skills into the classroom. We should not only employ foreign language teachers, but also professional experts and teachers to form a reasonable proportion of Chinese and foreign teachers to provide strong support for the internationalization of higher vocational colleges.

Regularly we invite high-level foreign experts to do

academic reports, lectures, academic exchanges, learning foreign advanced teaching ideas, teaching methods and models. For example, Shenzhen Vocational and Technical College has invited 21 experts from the United States, Canada, Switzerland, Japan, Korea and Hong Kong and Taiwan to give lectures. They receive 84 batches of 378 visiting teachers from outside the host country.

3.2 To Establish Close Cooperation with Chinese and Foreign Enterprises

Studying German dual system model, school and enterprise are in deep integration. The dual system in Germany refers to: "students study professional theory and public basic courses related to occupations in vocational colleges and receive relevant practical skills in enterprises as apprentices"^{[3] ③}. Students are at the school for three months and they are at the enterprise for three months which the enterprise has to pay the student's salary and living expenses during the internship, and the experienced technician acts as the tutor for the student.

Under the dual system, students must pass two kinds of examinations: one is carried out by the Trade Association, and this is to assess the students' mastery of the skills and knowledge they are taught in the enterprise training. The other is carried out by vocational colleges, which mainly tests students' academic knowledge of the school, including written and oral examinations. After passing the examination, the student obtains two kinds of certificates: one is the skill certificate issued by the Trade Association. The other is a diploma from a vocational school. After graduation, students can freely choose the companies, most of who are willing to stay in the original internship company. The dual system makes enterprises, schools and trades cooperate closely.

We can also learn the school-running model from the German University of Applied Science and Technology. On the one hand, the university trains talents for enterprises, solves problems, provides consulting services, provides cutting-edge information, and forecasts the future development direction of enterprises ahead of time, training of personnel for enterprises and direct transfer the results of scientific research and technology to enterprises, etc. On the other hand, enterprises provide production practice positions, post-holding practice positions and employment positions for schools, and provide some applied research projects, donate some updated equipment to the school, and provide the school with experienced staff as trainee teachers. The cooperation between schools and enterprises can promote the reform and renewal of teaching methods, means and contents, as well as the construction of theoretical courses and practical teaching

materials^[4].

We propose to set up an advisory committee composed of enterprises and colleges to form an expert group to participate in the whole process of student training, jointly set up specialties, formulate school personnel training programs, and choose learning courses and practical training, and internship program for students. School and enterprise deeply integrate and cooperate, mutually serve, commonly carry on public relations.

Vocational colleges should strengthen cooperation with transnational corporations, foreign enterprises and Chinese enterprises developing abroad to create internship, study and employment opportunities for students. We, together, will train a large number of high-quality skilled talents with strong business ability, innovative consciousness and international vision.

International logistics of Tianjin Vocational College of Business established long-term cooperation with world-class logistics enterprises: Singapore Ye Shuifu Company. They select outstanding students to study and work in Singapore for a year. The school's hotel management major sends students to work as paid interns in Thailand's many hotels. These collaborations enable students to experience the advanced management experience of world-famous companies, market operation mechanism, enterprise operation mode and technical advantages, and greatly improve the quality of personnel cultivation.

3.3 Increase the Investment of Higher Vocational Education Funds

We will learn from the successful experiences of advanced and developed countries and build a diversified investment system with the government as the main body and enterprises, schools, individuals and social organizations to provide adequate financial support for the vocational education.

Following the example of the Singapore government, education accounts for the largest share of national expenditure, at 25.3 per cent, and is increasing at an annual rate of about 30%^[4] ④. The financial allocation of the Singapore government accounts for more than 80% of the total funding for higher education, and uses also heavily for vocational education, for example, the Singapore Polytechnics receives 75% of its funding from the government. The government has also set up an education savings scheme with a large annual allocation of funds to the Scheme Fund for various types of on-the-job training. A Skills Development Fund was also established in 1979, with the government requiring enterprises to pay a tax of 4 per cent of the salary of employees earning less

than \$750 per month as a training fee to upgrade their skills. The vocational education in Singapore has achieved a high level of social recognition thanks to the investment of the government and enterprises^[5].

For example, Shandong Rizhao Vocational and technical college and Hyundai Motor Group of Korea set up Hyundai Motor College, and promote the donation of teaching equipment.

We should strive for the financial support of governments at all levels, participate in the international cooperation and exchange projects supported by the special financial funds at the provincial level, strive for the investment of social organizations, and support the internationalization projects of Higher Vocational Colleges.

3.4 Establish the Concept of Equality and Mutual Respect in All Walks of Life

Change the fetter of the stale ideas of the past, learn from Germany. In Germany, there is no high or low social status between blue collar workers, white collar workers and civil servants. German society has not looked down blue-collar workers, "Master" has a higher social status. Artisans are an important part of the middle class and belong to the main body of society. It is precisely because of the concept of equality and mutual respect in all walks of life that vocational schools are enviable for their job prospects in great demand rather than humiliating. In terms of income, blue-collar workers do not fall behind. Ordinary civil servants may not earn as much as plumbers, and senior technicians may be paid more than university professors or doctors. Christian Sewing, who started as an apprentice in Bielefeld branch of Deutsche Bank, became the youngest chairman in 30 years later in the largest bank in Germany. And in the September 2017 federal election, Merkel's rival, the Democratic nomination for Prime Minister, Martin Schulz was also an apprentice in a bookstore.

Only by changing the traditional concept of our country and the social understanding of vocational education, the vocational education can cultivate high-skilled and applied talents. The general higher education focuses on the innovation of theory and knowledge, both of which are indispensable to the development and progress of society. Only by forming the concept of equality and mutual respect in all walks of life, can our society and our higher vocational education develop better and the internationalization of higher vocational colleges develop faster.

3.5 Cooperation in Running a School Is an Important Way for the Internationalization of Higher Vocational Colleges

China's cooperative education refers to the education that "Chinese educational institutions and foreign educational institutions or enterprises cooperate to organize the education in China with Chinese citizens as the main enrollment objects."^⑤ It is the most common mode of internationalization of Higher Vocational Colleges in China. Through Chinese-foreign cooperation in running schools, we have introduced foreign mature disciplines new methodologies and new specialties, advanced school-running models, international advanced professional courses, high-quality textbooks, advanced teaching methods, teaching means and teaching concepts, it can improve the internationalization level and teaching ability of teachers, and also bring the educational administrators into contact with the latest educational ideas, and improve the quality of personnel training.

At present, international cooperative education project of higher vocational colleges mainly adopts the "1 + 2" mode: students study in domestic higher vocational colleges for one year, lay a good foundation for language, then go abroad to study in the cooperative colleges for two years, study professional knowledge, carry on the practice, complete the graduation project and so on. "2+1" mode: students study in domestic higher vocational colleges for two years, and go abroad in the third year to complete professional study, internship, employment, etc.. And "3+ 2" mode: students complete three years of study in domestic higher vocational colleges, get a junior college diploma, and then go to foreign cooperative colleges to continue to study for two years, get a bachelor's degree. We work with foreign partner institutions to develop talent training programs, jointly determine the curriculum system, mutual recognition of credit. Students can be flexible to choose credits, complete high-quality studies. Another mode of running a school refers to: students can obtain corresponding certificates and diplomas without studying abroad and completing all their studies in Chinese-foreign cooperative higher vocational colleges^⑥.

For example, in the 1980s, the governments of China, Germany, Spain and Japan established the Tianjin Sino-German Vocational and Technical College, which was renamed Tianjin Sino-German University of Applied Science. The university, together with well-known enterprises in Germany, Japan and the United States, such as IBM, Mitsubishi Heavy Industries and Bosch, has built a number of high level training centers with a total investment of more than 60 million Yuan. The school

has reached cooperation with many famous educational institutions at home and abroad to train a large number of skilled workers for Airbus Tianjin Assembly Line, Tianjin Subway and other large enterprises.

4. Conclusion

The realization of international cooperation in higher vocational colleges has encountered problems such as insufficient foreign language proficiency of teachers and students, low level of internationalization of teaching staff, lack of deep integration of cooperation between schools and enterprises, insufficient investment of the state in higher vocational education, and backward traditional concepts. In order to solve these problems, we need to improve the foreign language proficiency of teachers and students through a variety of ways. We need to strengthen our international "double-qualified" teaching force by recruiting teachers from enterprises, hiring foreign teachers and overseas returnees. Colleges and enterprise in-depth cooperation jointly cultivates high-quality application talents with international vision and international competitiveness. It is hoped that the state will increase its investment in higher vocational education and form a diversified investment system with government-based enterprises, schools, individuals, social organizations and other diversified investment systems^⑦. We should change backward traditional concepts, establish a new social trend of equality and mutual respect in all walks of life, encourage Chinese-foreign cooperation in running schools, introduce advanced professional courses and high-quality textbooks, advanced teaching methods, teaching concepts and management experience. All these serve for the international cooperation of Baotou higher vocational colleges, for the development and improvement of China's higher vocational education, and improving the international reputation of higher vocational education in China.

Notes

① National Medium and Long-term Education Reform and Development Plan (2010-2020).

② Zhang Xiujun. The Characteristics and Enlightenment of Singapore Vocational Education [J]. Vocational Education Newsletter, 2012(12).

③ Nie Zhenghua. A Brief Talk on the German Dual System of Vocational Education. [J]. Technology Communications, 2014(7).

④ Bu Xiaoyuan. Enlightenment of the Development of Vocational Education in Singapore to the Construction of Key Vocational Colleges in China[J]. Vocational

Education Research,2012(1).

⑤ Chen Baorong. Research on the Internationalization Development and Countermeasures of Higher Vocational Education in China [J]. *Vocational Education Forum*, 2012 (1).

References

- [1] Li Zhenhong. Problems and Countermeasures in Teaching Management of Sino-Foreign Cooperative Education [J]. *Journal of Shandong Vocational and Technical College of Commerce*, 2010 (3).
- [2] Gao Shuliang. Study on the Practice and Countermeasures of Vocational Education Internationalization in Secondary and Higher Vocational Schools [J]. *Transportation Vocational Education*, 2016 (5).
- [3] Mai Linyan. Internationalization of Vocational Education: Current Situation, problems and Countermeasures——Based on the Investigation and Analysis of Guangzhou Vocational Colleges[J]. *Vocational Education Forum*, 2016 (4).
- [4] Dong Dakui. German FH Education and its Practice in China [J]. *Vocational and Technical Education*, 2007 (1).
- [5] Chen Chunyi, Liu Renxiong. Absorption-Integration-Reconstruction: on the Triple Realm of International Running Schools of Higher Vocational Education -- Data Analysis of 2016 Annual Report of Higher Vocational Quality [J]. *Journal of Jiangsu Vocational and Trade College*, 2017 (4).
- [6] Yan Ying, Kang Qiang. Learning from Singapore Vocational Education to Develop China's Modern Higher Vocational Education [J]. *Textile Education*, 2016 (6).
- [7] Tan Zhuping. Research on the Promotion Strategy of “Going out” of Higher Vocational Education Internationalization [J]. *Modern Vocational Education Research*, 2017 (6).