

Exploration and Practice of School-enterprise Cooperative Education for Art Design Specialty

Taking the International Jewelry Academy of a Higher Vocational College in Yunnan as an Example*

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Abstract—Taking the International Jewelry Academy run by the mode of school-enterprise cooperation as an example, the thesis analyses the urgent need for school-enterprise cooperation in education of art design specialty in higher vocational education, and puts forward innovative practices and enlightenments for the management of art design specialty in higher vocational colleges in order to provide the dual-subject implementation path thinking and reference experience for the study of the key links of integration of industry and education and school-enterprise cooperation in higher vocational colleges.

Keywords—school-enterprise cooperation; art and design; management practice

I. INTRODUCTION

The Measures for Promoting School-Enterprise Cooperation in Vocational Schools, issued jointly by the Ministry of Education and other five departments in February 2018, has established the basic institutional framework for school-enterprise cooperation in vocational schools at all levels and types, and put forward the idea of "promoting the formation of a joint education mechanism of integration of production and education, school-enterprise cooperation, combination of work and learning, and unity of knowledge and practice, so as to build knowledge-based, skill-oriented and innovative labor forces and improve the modern vocational education system". The cooperation mechanism between schools and enterprises in higher vocational colleges has become an important part of vocational education with top-level design, government promotion and industry guidance in the new era.

II. THE REQUIREMENTS OF SOCIAL DEVELOPMENT FOR HIGHER VOCATIONAL COLLEGES TO REFORM THE SCHOOL-RUNNING MODE OF ART DESIGN SPECIALTY

Education is the supplier of human resources, and employment market is the demander of human resources. They are two complementary and interrelated systems, and it is

*Fund Project: Scientific Research Foundation Project of Yunnan Education Department: Exploration and Practice of Higher Vocational Students Management under School-Enterprise Cooperation Mode (Project Number: 2017ZZX168).

difficult to develop absolutely independently. If there is a big gap between the concept of education reform and the pace of employment market renewal in some areas, it may partition the close relationship between education system and employment system to a certain extent, which will inevitably lead to a partial dislocation between the training objectives of schools and the employment market demand. Bauhaus College in Germany, called as the cradle of modern art design, is famous for its education system of art design from workshop to studio, which lays equal stress on knowledge and technology and synchronizes theory with practice. They put forward the view that "art cannot be imparted, but craftsmanship can be taught". They invite skilled craftsmen to assist professors to complete the teaching work and implement the teaching method of integration of design and production. This characteristic of art design determines that art design specialty is more suitable to adopt "apprenticeship" to cultivate talents, which can promote the reform of school management mode. Schools actively cooperate with enterprises to achieve "apprenticeship" in depth. Compared with other disciplines, art design specialty has its own distinct characteristics, such as high professional applicability and strong practicalness. So, it is relatively easy to find the entrance to the employment market. Art design specialty of higher vocational colleges mainly tends to train craftsmen.

As a type of higher education, higher vocational colleges need to focus on serving the state's initiative of "the Belt and Road", serving regional economic and social development and the overall requirements of industrial transformation and upgrading, and shall give full play to self-distinctive advantages, improve their ability to provide social services, and focus on training high-quality technical personnel. In November 2006, the Ministry of Education officially launched the project "Construction of 100 Demonstrative Higher Vocational Colleges". Its main objective is to accelerate the healthy and sustainable development of higher vocational education and gradually form a higher vocational education system with reasonable structure, perfect function and excellent quality. Higher vocational education in Yunnan Province has developed rapidly and enjoys a good construction environment. Higher vocational colleges that have been supported by the project have made substantial breakthroughs

in reform and development, teaching quality, management services and comprehensive level. At present, two higher vocational colleges have been successfully established as "National Demonstrative Higher Vocational College". As one of them, Kunming Metallurgy College has actively played a demonstration role and won more than 160 projects of quality engineering construction at or above the provincial level. It has explored the diversified apprenticeship mode of cooperation between modern schools and enterprises, promoted the deepening reform of higher vocational education, and better served the regional economic construction and social development.

III. TO PROMOTE THE MANAGEMENT INNOVATION OF ART DESIGN SPECIALTY IN HIGHER VOCATIONAL COLLEGES BY THE SCHOOL-ENTERPRISE COOPERATIVE EDUCATION

The cooperation between higher vocational colleges and enterprises needs to have a common sense of social responsibility, pursue common development of both sides' undertakings, complement each other's advantages, improve school-running quality and enterprise efficiency, and realize the goal of promoting the integration and balanced development of education system and employment system.

In line with the purpose of mutual trust, mutual benefit and win-win cooperation, the college has established Qianxingcui International Jewelry Academy of Kunming Metallurgy College with Yunnan Qianxingcui Commerce and Trade Co., Ltd. Starting from 2015, they started the innovative management based on the school-enterprise cooperation framework, constructed the project-oriented course system, made corresponding personnel training programs according to the actual needs of enterprises and the market. Through the three-in-one teaching mode of integrating production, learning and research, the art design professionals can be trained, and the win-win situation of schools, enterprises, teachers and students can be constructed.

A. *To Integrate the Teaching and Production, and Set up Specialized Courses Systematically*

Qianxingcui International Jewelry Academy combines social needs, regional economy, artistic expertise and school-running conditions to form a supporting relationship including regular education course module, professional education course module and post education course module in the specification of talent training. It focuses on improving students' ideological awareness, political quality, moral concepts and legal awareness, helps build the theoretical and cultural knowledge that higher vocational students should possess, lays stress on building students' professional theoretical knowledge and professional perceptual knowledge, strengthening professional ethics and team spirit, building perceptual knowledge of specific post, and cultivating the technical and skilled art design talents of all-round development and high quality.

The main basis of the professional curriculum setting in school is the main work system and task for graduates' employment, in order to meet the professional requirements of jadeite processing industry, precious metal design industry,

luxury jewelry design industry, fashionable jewelry design and manufacture industry, jewelry appraisal and quality inspection center. The college and enterprise cooperate to build the Productive Training Base of International Jewelry Academy. The enterprise selects high-level technicians to participate in the training, is responsible for purchasing raw jewelry materials and related equipment, and the construction of cutting, processing, polishing training room. The enterprise invested to purchase raw jadeite materials for daily teaching and training, invested in indoor decoration and purchase related facilities. In this way, the teaching mode of "apprenticeship" and "factory" is formed. International Jewelry Academy introduces real studios and factories into the field of learning. The professional teaching places of the school are fully integrated with the production workshops of enterprises, which can effectively improve the professional teaching quality of personnel training.

B. *To Combine Theory with Practice to Train Students Jointly by School and Enterprise*

Traditional art design specialty attaches importance only to theory teaching, so students lack practical ability. The school-enterprise cooperation mode emphasizes the combination of theory and practice. In the process of student training and management, Qianxingcui International Jewelry Academy carried the strategy of clearly division of labor and orderly cooperation between school and enterprise, and asked students to learn relevant knowledge according to job requirements. It has changed the teaching method of acting blindly and promoted the combination of art design teaching and enterprise production practice.

The college is mainly responsible for the enrollment of students and the teaching of basic and theoretical courses. Teachers are dispatched to assist enterprises in guiding and managing students' practical teaching. The college invites the relevant staff of enterprises to directly participate in the training and management of students, and transforms the job content into students' learning projects. The purpose is to cultivate students' post vocational ability. At the same time, the college assesses employment accomplishing of the enterprise at fixed period.

The enterprise is mainly responsible for the management of teaching and production activities in the productive training workshop of International Jewelry Academy to ensure that priority is given to meeting the needs of the implementation of the teaching plan. According to the curriculum arrangement of professional practice links set up by International Jewelry Academy, the enterprise selected a sufficient number of high-level technicians as practical training instructors. Qianxingcui International Jewelry Academy pays attention to various practical training courses, so that students can operate design projects and effectively use the theoretical knowledge they have learned. Students learn materials, design and technology from doing, which can effectively improve their professional quality and working ability. With strong market competitiveness, they are able to adapt to fierce social competition.

C. To Share Resources in Practical Training and Strengthen the Construction of Double-typed Teacher Teams

Qianxingcui International Academy cooperates with the jewelry industry to build a complete set of training center with complete facilities and teaching process, so as to achieve the willingness to share the technical and hardware resources of both sides. Joint construction of jewelry craft and production training room, jade carving technology and production training room, jewelry appraisal and specimen training room in the school provide a more comprehensive training environment for students, laying a solid foundation for students to enter society and embark on practical jobs. Colleges and enterprises jointly seek more and more opportunities for cooperation outside the school, and carry out in-depth research on the educational mechanism of "school-enterprise cooperation, integration of industry and education, and combination of work and learning", so as to ensure that each student in Qianxingcui International Academy can complete his/her internships before graduation.

The college employed senior teachers and excellent young teachers both inside and outside the school to form teaching teams and established a long-term and mutually beneficial mechanism with strong operability. For example, school teachers can participate the practical training in enterprise or serve as technical consultant. At the same time, the college selected technical experts of the enterprise to take part-time teaching in school and participate in the technical training and appraisal of employees in the industry. Through Yunnan Stone Industry Office, Stone Industry Promotion Association, Jewelry Industry Association and other governmental and industrial organizations, jewelry artists and high-level masters have been employed as part-time teachers to participate in the training of talents. The contractual joint enterprise has employed nearly 50 high-level technicians as training instructors to undertake teaching tasks.

IV. ENLIGHTENMENT OF SCHOOL-ENTERPRISE COOPERATIVE EDUCATION OF ART DESIGN SPECIALTY IN HIGHER VOCATIONAL COLLEGES

Qianxingcui International Jewelry Academy, which was built by the cooperation of school and enterprise, has invested nearly ten million yuan to add advanced practice and training equipment, and improve the school-running conditions for art design specialty. The mutual assignment of professional art design teachers provides comprehensive safeguards for the training of high-quality technical and skilled talents. The International Jewelry Academy has been awarded as "Yunnan Industry-Education Integration Demonstration Base" by Yunnan Education Department. The art design works of teachers and students in academy and enterprise have won the gold and silver awards in Yunnan Creative IDD Competition, and silver, copper and excellent awards in Yunnan Youth Talent Jade Carving Design Competition.

A. The Close Relation of School-enterprise Cooperation Mode and Regional Economic Development

Both the school and the enterprise has reached cooperation in accordance with the direction of regional economic development, actively integrated into the link of regional

characteristic economic construction, which meets the policy-oriented requirements of governments at all levels to promote vocational education and social development. The essence of regional economic development is the formation, development and promotion of regional industrial competitiveness. One of its main contents is industrial development. The adjustment and upgrading of industrial structure is the direct means to achieve the goal of high level and high quality of regional economy. In recent years, Yunnan Province has accelerated the transformation and upgrading of industries with traditional resource advantages and optimized the industrial structure. In the first quarter of 2018, its total GDP reached 339.306 billion yuan, and its growth rate ranked third among all provinces (regions) in the country, which was 2.5 percentage points higher than that of the whole country (6.8%). It has focused on building the modern industrial system of "traditional industries, pillar industries and emerging industries". Yunnan Province has many mountains and rocky landforms. Through scientific planning of jewelry and jadeite, ornamental stone and building material stone, the stone resources can be comprehensively exploited and utilized to form a new characteristic advantaged industry. Authoritative experts predict that the annual output value of Yunnan's stone industry will surpass the 100 billion yuan and become a highlight in the development of Yunnan's emerging industries in the country, driven by fierce market competition and strong market demand.

B. To Establish a School-enterprise Cooperation Mechanism That Gives Full Play to the Advantages of Resources and Benefits Each Other

School-enterprise cooperation can establish an organic interface platform between the supply side of human resources and the demand side of industry. Both sides support each other, share interests, mobilize the enthusiasm and initiative of enterprise participation, and achieve multi-dimensional coordination, stable cooperation, mutual benefit and win-win in the value chain of social industry.

Kunming Metallurgy College, aiming at Yunnan's characteristic superior resources, has set up specialties of design and processing of bornite, tin and jade for nearly 20 years. The double-typed teachers accounted for about 80% of the total number of teachers. Jewelry technology and appraisal specialties and professional groups have been listed as one of "construction projects of high-level vocational colleges" in Yunnan Province. The conditions of practice and training are at the leading level of similar institutions in China. Yunnan Qianxingcui Commerce and Trade Co., Ltd. is a leading company of jewelry and jadeite processing and the supplier of jewelry products in China. Its main business scope is jadeite series products. It covers the fields of raw jadeite stone acquisition, design and processing, finished product sales and special customization. The main business types are Jadeite Museum, high-end jadeite clubs and chain franchise stores. The cooperation of school and enterprise has realized complementary advantages, mutual use of resources and mutual influence. Qianxingcui International Jewelry Academy has realized the docking of teaching process and production process, the docking of professional curriculum content and

professional standards, the docking of professional competence training and industrial professional posts.

C. To Have Same Vision but Different and Clear Rights and Responsibilities in School-enterprise Cooperation for Joint Construction and Development

Based on the strong sense of enterprise and social responsibility of both sides, school-enterprise cooperation hopes to provide learners with diversified vocational education opportunities and high-quality products and services for social development. Yunnan has unique regional advantages and unique industrial resources. Northward, it connects the Silk Road Economic Belt. It connects the maritime Silk Road to the south. With the outstanding geographical advantages in the construction of "the Belt and Road", it is the only land that enables China to connect Southeast Asia and South Asia. It will become a new forward position in the reform and opening up. Yunnan Province is vigorously promoting the transformation of traditional resource advantages into industrial advantages and regional competitiveness advantages, and there is a larger expansion space for cultural tourism industry. Vocational education has gradually formed a multi-level development pattern, which is led by national demonstration backbone colleges, focuses on provincial demonstrative and provincial characteristic backbone colleges, and is supported by regular higher vocational colleges.

In the process of co-construction between school and enterprise, there must be a relationship of exchange of resources and interests. Both of them shall abide by the contractual relationship and the spirit of contract, define the relationship of rights and responsibilities with quality as center, and coordinate and guarantee the deep and long-term cooperation between them. In the context of economic, social and demographic transformation, the state has established the strategic concept of "giving priority to investment in the all-round development of human beings", paying more attention to the unity of economic development and human development, and the speed and quality of economic growth, in order to realize the transformation from a populous country to a powerful country of human capital. The research shows that there is a mutually reinforcing and causal relationship between the process of new urbanization and regional economic development, which is manifested in the level of urbanization development, the per capita fiscal income and gross domestic product of the region, the per capita consumption level of the whole society and the obvious increase of fixed assets investment.

V. CONCLUSION

At the national level, the continuous deepening of vocational education reform and the continuous promotion of "integration of industry and education, school-enterprise cooperation" are the important development direction to establish and improve the training system of high-end talents in the development of docking industry. It is also an important way to connect schools and enterprises, talents and markets, students and employers, and optimize the allocation of resources between schools and enterprises. The specialty of art design in higher vocational colleges has distinct characteristics.

It can meet the demand of cultural and creative industries for high-quality talents in the development, and has the advantages in school-enterprise cooperation. Only by strengthening the cooperation between schools and enterprises, combining teaching with production, deeply exploring the key links and difficulties in the practice of school-enterprise cooperation, and constructing the unique school-enterprise cooperation education mode of art design specialty, can we better serve the development of regional economy and society and industrial transformation and upgrading.

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