

Research on Industry-University-Research Cooperative Education Mode of Product Design Specialty with Ideological Education

Yan Liu*, Yingying Jiang

Academy of Art and Design, Sichuan University of Culture and Arts, Mianyang, 621000, China

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Abstract: In the new normal economy, the creative design industry needs to be transformed and upgraded, and the creative level and overall strength of the cultural industry need more creative talents and design service talents. IUR (Industry-University-Research) cooperative education mode provides a direct development path and implementation platform for realizing the systematization of the content, links and environment of HVC (higher vocational colleges) ideological work education in the new era. The IUR cooperative education model systematically defines the educational content, links and environment of HVC ideological work, which greatly expands the form and carrier of ideological work. We should actively play the role of HVC, enterprises and other subjects, optimize the allocation of resources, and stimulate initiative and creativity. In view of this, firstly, the basic connotation of high IUR is analyzed; Secondly, it points out the problems existing in the construction of IUR cooperative education mode for product design specialty at present; Finally, the IUR cooperative education mode of product design specialty integrating ideological education is put forward to promote the all-round development of HVC students.

1. Introduction

IUR (Industry-University-Research) cooperative education mode is put forward based on the vocational education spirit of the National Vocational Education Reform Implementation Plan. Its connotation is to integrate and utilize the complementary resources of enterprises, HVC (higher vocational colleges) and scientific research institutions, cultivate talents with creativity and innovation consciousness that meet the needs of enterprises, and make production, teaching and scientific research cooperate in depth to cultivate applied talents [1-2]. Product design specialty is a new discipline under the background of modern industrial society, and has become one of the most dynamic industries at present. IUR cooperation is an open cooperative education form in which HVC cooperates with enterprises and scientific research units. Industrial design is a specialty closely related to market economy and culture, with strong practicality and competitiveness, and its IUR cooperation has its own unique form.

In the new normal economy, the creative design industry needs to be transformed and upgraded, and the creative level and overall strength of the cultural industry need more creative talents and design service talents. IUR cooperative education mode provides a direct development path and implementation platform for realizing the systematization of HVC ideological work education content, education links and education environment in the new period. This "grafting" and "coupling" promote the qualitative innovation of HVC ideological work system.

2. Basic connotation of IUR

"IUR cooperation" refers to the cooperation among industry, schools and scientific research units. Specifically for HVC, "IUR cooperation" refers to making full use of the resources of enterprises, schools and scientific research units, and effectively combining them to create a platform for cooperative research and development and cooperative education, which is an important mode of HVC education and training talents [3-4]. Its main manifestations are as follows: schools provide technical services and talent support for enterprises or scientific research units; schools and

enterprises or scientific research units jointly build R&D institutions or cooperate to carry out R&D projects; jointly build training bases inside and outside schools; and jointly build various cooperative training institutions; schools strengthen students' vocational skills training and improve students' employment rate by means of work-study combination, part-time study, on-the-job internship and order-based talent training, etc.

The research and development of products depends on the school vocational education, which has an accurate positioning for the development of products. The professional and technical personnel, teachers and researchers in vocational colleges are rich, and technological innovation and product research and development are very beneficial. As a school-run enterprise, it can enjoy the relevant preferential policies of the state, such as the relevant tax policies, etc., so as to reduce its cost and make its products more competitive. It is an important way to promote the further development of China's vocational education and solve the shortage of skilled talents in the process of China's economic development by learning from the experience and lessons of IUR combination in the development of foreign vocational education and forming a school-running mode and development path with China characteristics.

3. Present situation of IUR cooperative education in product design specialty

3.1. Asymmetry between talent demand and talent training

The students majoring in product design have a low educational level and poor professional foundation when they enter the school. After entering the school, they actually spend little time on professional study. After graduation, their professional knowledge is not systematic and their original ability is lacking. Most graduates can only imitate or copy when they enter the industry to engage in design work. It often takes a long time for graduates to run in with enterprises. During this period, most graduates lose their professional interests due to lack of perseverance and perseverance. At the same time, if enterprises do not retrain graduates, students will be eliminated by enterprises and change careers, which will seriously waste educational resources and educational investment of students and parents. The demand for creative talents and the cultivation of talents are asymmetrical.

3.2. School-run enterprises and school resources failed to share

For school-run enterprises, HVC's advanced experimental equipment, instruments, R&D personnel and teachers are excellent resources for product research and development of school-run enterprises, and the skills practice equipment and venues provided by schools for students are also available resources for school-run enterprises. For schools, the products, equipment and production management of school-run enterprises are the realistic environment for cultivating talents with educational skills and improving their overall quality. If they are not well utilized, the mutual benefit and win-win between school-run enterprises and HVC will become empty talk [5]. The teaching plan of HVC can not be effectively combined with the production plan of school-run enterprises, which leads to students' holidays or other teaching activities in schools when enterprises are busy with production, and a large number of students enter enterprise internships when enterprises are idle with production.

3.3. HVC and insufficient research and development of school-run enterprises' products

On the school side, only taking IUR as a way to solve students' technical skills learning and practice, and establishing students' practice teaching base as the whole content of cooperation, did not or rarely give full play to the school's R&D advantages in the product research and development of enterprises, resulting in the products of school-run enterprises being uncompetitive in the market, the slow development of enterprises, fewer skills internship positions provided to schools, less number of spare parts products that students can participate in, which can not meet the combination of production and learning of school students, and the enthusiasm of teachers and students to participate in cooperation is not high.

4. Construction of IUR cooperative education mode for product design specialty integrating ideological education

4.1. Broaden the form and carrier of ideological work according to the characteristics of IUR cooperative education

The IUR cooperative education model systematically defines the educational content, links and environment of HVC ideological work, which greatly expands the form and carrier of ideological work. We should actively play the role of HVC, enterprises and other subjects, optimize the allocation of resources, and stimulate initiative and creativity. Through the practice of enterprises and the experience of doing things in strict accordance with the law in reality, we can cultivate college students' rigorous and solid learning style, pragmatic scientific and technological ethics, the spirit of unity and cooperation, and establish a correct world outlook, outlook on life and values. This requires that ideological work must pay attention to all aspects of students' all-round success [6-7].

Encourage college students to have the courage to create, learn to cooperate and win-win, encourage them to make a breakthrough in their professional ability, cultivate their awareness of serving the public and society, encourage them to obtain economic benefits and personal labor returns reasonably, and use and treat money scientifically and correctly.

4.2. Integrating ideological education into curriculum standards

When formulating curriculum standards according to the talent training plan, we should implement the IUR cooperative education reform of product design specialty, emphasize the cultivation of students' patriotic feelings and pride of the Chinese nation, practice socialist core values, forge the spirit of artisans, and fulfill moral standards and codes of conduct. After graduation, students can love their jobs or innovate and start businesses, abide by laws and regulations, and be good citizens with social responsibilities. The goal of curriculum literacy is decomposed and embedded into every knowledge point and skill point, and the ideological elements in the curriculum are excavated. The knowledge imparting, ability training, intellectual development and moral cultivation are fused into one furnace, and moral education is included in teaching, so as to construct the ideological education system of the curriculum.

In enterprise practice, students will seamlessly connect their professional theoretical study with their future jobs, at the same time, they will present the red genes cast on campus in parallel in enterprise practice and practice the socialist core values [8]. IUR cooperative education mode is to establish a cooperative talent training mode of "enterprise+school+scientific research institution" by relying on industry to set up majors, integrating production and education, making full use of enterprise resources, research and development advantages of scientific research institutions and teaching conditions of schools [9]. It is necessary to fully cultivate students' innovative thinking and ability, cultivate a rigorous and realistic scientific attitude and dare to explore when guiding students to explore the sub-topics of horizontal topics, and practice socialist core values.

4.3. Construct a project-based two-way cooperation mechanism

There are two problems in HVC in China: First, due to the lack of real-time communication and contact between schools and enterprises, the goal of HVC education is out of touch with the actual requirements of enterprises; Second, for the sake of maximizing short-term benefits, the core of HVC is to "train as many talents as possible" and enterprises focus on "maximizing profits in the visible time range" [10]. In teaching, besides introducing enterprise projects, a batch of original designs, new materials, new processes and new product forms developed by the studio are also regarded as important practical teaching contents, and new professional core courses are formed centering on new knowledge and skills in research and development and production, forming a relatively flexible, effective and open curriculum system, which has become the characteristics of studio teaching activities.

The studio mode has changed. Cooperative enterprises are generally in the simple cooperation mode of "cognitive internship and graduation internship", which promotes the training of

cooperative "order class". Co-construction of the studio by school and enterprise not only enhances the conditions for running the college, improves the overall teaching and scientific research level of the teaching staff, but also plays an important role in promoting the development of HVC education in the college from focusing on expanding the scale to improving the quality as the core. Promote the formation of a school-enterprise cooperation mechanism with mutual support, mutual penetration, full participation, mutual use of resources and clear responsibilities and rights (Figure 1).

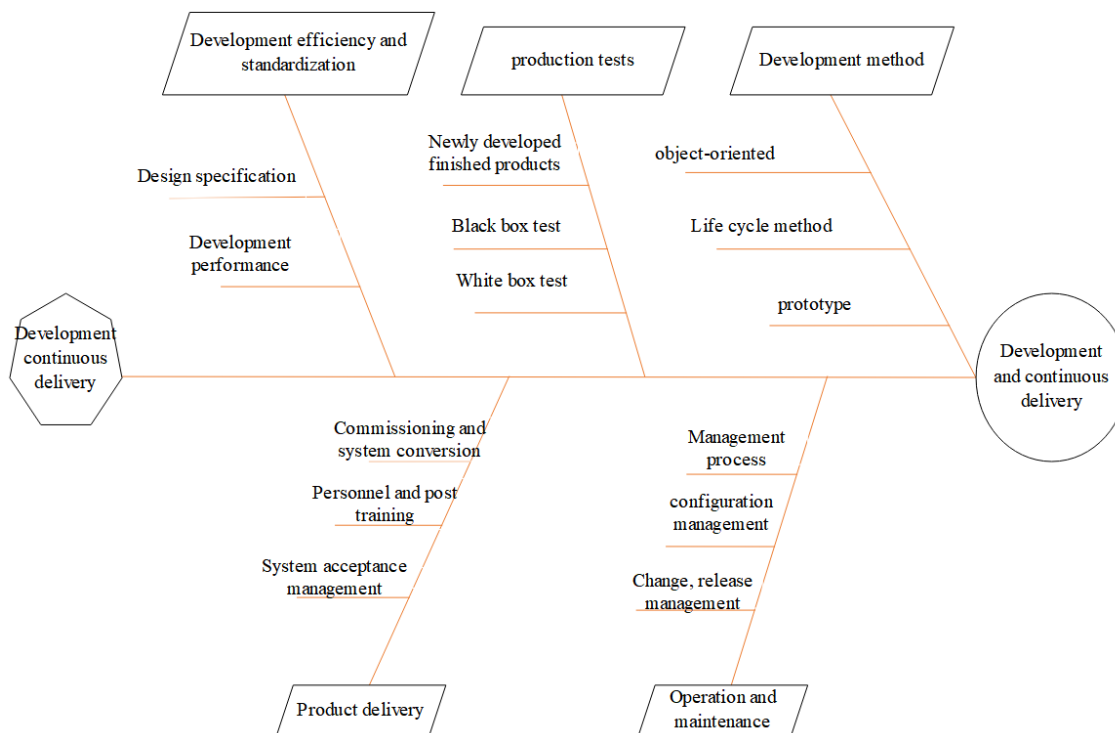


Figure 1 Business process of school-enterprise cooperation

Only by fully respecting the laws of market economy, making overall plans, making rational distribution, trying to tap the potential of all aspects, and establishing an operating mechanism of IUR cooperation among government, enterprises, schools and society, can we really create a new situation of IUR cooperation in running schools

Through the guidance and policy support of the government and the market-oriented operation of digital science and technology parks, a firm partnership will be established among enterprises, governments and schools, so that all parties can benefit from IUR cooperation, thus establishing a lasting win-win situation, and finally achieving the goal of closely combining students' school study with the actual production of enterprises, adapting to the society and improving the ability of enterprises. Effectively integrate all kinds of resources, innovate the operation and management system and mechanism, build a bridge for diversified social service work of various majors, and directly improve the professional social service level.

4.4. Strengthen the practicality of collaborative education

HVC educational administration can build an entrepreneurial practice platform by cooperating with student associations and off-campus enterprises, and constantly improve students' practical application ability. On the one hand, by participating in social practice, the content of students' consciousness can be reflected in practice, and in this process, students will be influenced by the surrounding environment and form a new understanding and perception of theoretical knowledge, thus constantly enriching their own ideological and moral system in practice. On the other hand, HVC can provide students with more abundant social practice activities by cooperating with the student affairs office and student associations, organizing and establishing entrepreneurial competitions and practical exchange platforms. In the process of participating in these social practice activities, it not only improves students' understanding of theoretical knowledge, but also

achieves the expected purpose of encouraging students to participate in social practice.

Both the content of innovation and entrepreneurship education and ideological education require the application of theoretical knowledge to practice. Therefore, after class, HVC students should review what they have learned after class, and actively participate in relevant practical activities by using the entrepreneurial practice platform provided by the school to constantly exercise their practical ability. Specifically, the human resources department can be assigned to investigate the professional categories and learning situation of HVC students, so as to arrange appropriate internship positions for them. For enterprises, it can not only assume social responsibility, establish a good corporate image, but also provide future talent protection for enterprises. Enterprises can build an entrepreneurial practice module that meets the development needs of HVC students by establishing cooperation and exchange relations with schools and relying on information network technology, and provide professional guidance and analysis for their practical activities to promote the improvement of students' innovative and entrepreneurial ability.

Through the integration of IUR cooperative education and ideological education in product design specialty, college students can be promoted to learn political theory and ideological values from multiple angles, levels and in the whole process, enrich their minds with correct labor values, better guide their daily lives with labor knowledge and skills, and achieve better growth and development. Schools should also provide college students with platforms and resources for innovation and entrepreneurship, guide students to give full play to their talents according to their majors, cultivate students' innovative consciousness and train students' entrepreneurial skills, and then let students participate in various innovative and entrepreneurial practices. By organizing and implementing similar educational activities, we can realize the normalization of ideological education and labor education, create a strong labor education environment, and improve the quality of education through collaborative education.

5. Conclusions

IUR cooperative education mode provides a direct development path and implementation platform for realizing the systematization of HVC ideological work education content, education link and education environment in the new period. This "grafting" and "coupling" promote the qualitative innovation of HVC ideological work system. The research and development of products depends on the school vocational education, which has an accurate positioning for the development of products. The professional and technical personnel, teachers and researchers in vocational colleges are rich, and technological innovation and product research and development are very beneficial. School-run enterprises can enjoy relevant preferential policies of the state, such as enjoying relevant tax policies, etc., so as to reduce their costs and make their products more competitive. IUR cooperative education broadens the platform and carrier of university education and teaching, personnel training, scientific research, etc., and inevitably brings a brand-new goal definition, content connotation, development path and mode to the traditional HVC ideological work. This should be a systematic project, which needs to be continuously explored by HVC ideological workers.

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