

Research on Garment Design Practice Teaching System in the Talent Cultivation Mode of “Internet Plus” School-enterprise Cooperation*

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Abstract—On the background of Internet Plus, a long term mechanism is to be built for school-enterprise cooperation-based education through instruction of governments and leading of industries so as to achieve the connection of college specialty setting with industrial development, talent cultivation plan with professional requirements, teaching contents renewal with enterprises’ technical progress; through the school-enterprise cooperation, it is to make and design talents cultivation pattern and plan, course system and quality estimation system, conducted staged cultivation in practical teaching, school-enterprise extended training and achieve the efficient connection of talent cultivation course; relying on mechanical innovation and active service, establish technical training and service innovative system, able to provide colleges inside and outside Guangdong province with operable and valuable reform and practical achievements for the cultivation of garment designers.

Keywords—Internet Plus; school-enterprise cooperation; educational cooperation; practical teaching system

I. INTRODUCTION

With the continuous development of social economy, the cultivation mode of single academic talents in colleges are far to meet the needs of talents by the society, which result in the difficulty of college students to be employed. In recent years, a new talent cultivation plan, that is, school-enterprise cooperation together with production, learning and research that pushes the close combination of technologies, education and economy, has achieved a lot. However, seen as a whole, the school-enterprise cooperation together with production, learning and research have not established a perfect operation mechanism which can be used to guarantee the sustainable and healthy operation and cultivate talents meet the needs of the society. On the other hand, Jul 1, 2015, the State Council released the *Instruction to Actively Promote Internet Plus Activities*, pointing out that it needs to explore new education service supply mode, encourage Internet enterprises and social education agencies to develop digital education resources so as to provide online education service. Encourage colleges to make use of digital education resources and education service platforms, gradually explore online education mode, enlarge

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the coverage of quality education resources and promote the fair education. Encourage colleges to connect with online and offline education resources, explore basic education and professional education through cooperation with Internet enterprises. Prime Minister Li Keqiang mentioned for many times in the 2015 government work report “to establish Internet Plus Action Plan”. The birth of Internet Plus Education brings renovation to the education, stirring deep changes in education concept, teaching mode, talent cultivation and so on. On the background, the school-enterprise cooperation has entered a new mode, that is, online + offline education mode. Facing the Internet Plus action plan, to explore school-enterprise cooperation for school running, talent cultivation and management mechanism innovation, deepen the integration of production and teaching, school-enterprise cooperation play a realistic role in promoting the combination of work and learning, integration of knowledge and practice as well as cultivating applied and realistic talents urgently needed by enterprises.

II. MAJOR PROBLEMS EXISTING IN CURRENT TEACHING

On the background of the Internet Plus era, the traditional mode of garment design education in colleges in China is still knowledge dissemination, where teachers disseminate, and students learn passively, who are in the lack of knowledge application and finding problems, having no consciousness of innovation. It is unable to meet the realistic requirements of continuous social and economic development on quality innovation talents. Though theories and practices are both stressed during the cultivation of applied talents, yet due to the limit of all kinds of factors, traditional education mode where theories are stressed with practice disregarded is still not changed basically; and the separation of theories from practice are still in a serve condition; and the students still have weak abilities of applying what they have learned to find and solve problems. Nowadays, with the hot social competition, the students’ abilities in employment are weakened seriously, and the talent cultivation fails to keep up with the needs of the mass education, and it is not clarified in quality standards according to subjects, and it still needs to further explore the talent cultivation mode so as to meet the needs of layered, diverse and individual talents by the society.

III. SOLUTION AND METHODS

1. Close school-enterprise cooperation, establish a long term and steady after-school practice bases, create a high level garment talent cultivation base at home, with the online and offline combined, combine the construction of practice base with course construction, and combine the product R&D of cooperative enterprises with practical teaching design of courses as *Computer Design Sketch, Children's Garment Design, Garment Design, Graduation Practice* and the like that are related to the garment design.

2. Explore school-enterprise cooperation to cultivate innovative and applied talents mode and develop talents transmission channels meet needs of enterprise development. Through the practical platform and school-enterprise cooperation, it needs to explore Internet Plus-based multiple on-the-spot teaching, practical teaching and cooperative product R&D, gradually create a new talent cultivation mode, and export excellent talents to enterprises, achieving the transformation for learning to work.

3. On the background of Internet Plus, it needs to widen the cooperation in resource sharing, employment, product design, achievement transfer and technical training between enterprises and schools.

IV. FORMATION OF PRACTICAL TEACHING SYSTEMS

A. *Renovate Existing Practical Teaching Management System and Operation Mechanism*

Modify the proportion between theoretical house and practice house in the cultivation plan, and increase professional practice courses and expansion courses, making it help the cultivation of students' innovative consciousness and startup abilities. With the labs open, take students' independent innovation tests as key points, establish interaction with industries, set independent courses for practical training teaching and carry out the module-based teaching. Establish a new practical teaching system consists of four modules as basic skills, professional bases, professional orientation and comprehensive design practice. Provide advanced experimental facilities for garment design labs, in order to guarantee the students' training effect, the labs will be open all day long so as to meet the needs of new practical training courses.

B. *Build A Multilayer Production, Learning and Research Practical Base*

Actively build school-enterprise cooperation teaching, research and practical bases, set the projects as per quality requirements, and promote the practical teaching with learning and work shifted. Through the college-level teaching quality project 'School-Enterprise Cooperation Teaching Research and Practice Base for Zhuhai College of Jilin University', we have succeeded in the teaching reform of Knitwear Garment Design with WSM China Fashionable Sweater R&D Base after two years; Provincial-level teaching quality project- Art Department Practical Teaching Base at Baoli Garment Company, centered on Baoli Garment Company, it covers Guangzhou Xintengrui Textile Co., Ltd, Jingcai Washing Plant, Xintang Jeans Valley Client Experience Center, Dongguan

Ruixing Computer Woven Label Co., Ltd, Guangzhou Hongbian Jeans Textile Co., Ltd and so on, it integrates the whole garment industrial clusters such as textile, surface material, design, process, washing, quality inspection, post process and sales, which create a better platform for students' practice and employment.

C. *Promote Learning through Competitions*

During teaching, to introduce the garment design competition to courses will be a better test on students' theoretical knowledge and design abilities. We select excellent works in previous competitions and take them as cases to show in courses, analyze and interpret the details from material, color, style, texture, snicks, drawing style and so o, combining course contents with actual design. The form promotes students to learn actively, further deepens the combination of theoretical knowledge and practical design, intensifies their abilities of thinking and problem solving, developing and improving students' abilities of professional innovation.

D. *Combine with Innovative Training Project and Teach on the Basis of Projects*

During the class teaching, it needs to combine students' innovative and startup training projects with courses they learn, according to the course contents, with teachers' instruction, the whole teaching is based on the projects, and students are required to complete the innovative and market-oriented garment styles. We should conduct surveys and analysis of popular colors, styles and materials on markets, then launch product R&D on the garment brands and styles, and rely on projects to drive students for independent research and learning.

V. INNOVATIVE POINTS FOR ACHIEVEMENTS

A. *We Conduct All-Round Research on the Garment Design Major Orientation, Which Is Clear and Distinct*

This major is to cultivate high quality innovative and applied talents, who shall be developed in morality, intellect and physics, able to engage in design, process, application, teaching, management and marketing in garment and fashionable industries, owning thick foundation, wide knowledge, strong capabilities and excellence in management.

B. *Course System Innovation, Perfect Combination of Theory and Practice*

According to the major construction requirements, it needs to carry out the school running thought of "highlight abilities, strengthen features, conduct individualized quality education and exert individualities, school-enterprise cooperation and market orientation", establish a course system highlighting the cultivation of practical innovation, the courses shall consist of basic education courses, professional foundation courses, professional elective-limited courses, professional elective courses, professional expansion courses and innovative startup education courses, it shall insist on the combination of theory and practice, and insist on the teaching of theory-based practice, practice instructed by theories and practice promoting theories.

C. Innovation of Practical Teaching System

According to the requirements of "highlight abilities and intensify features", this major's practical courses set are all featured course, which are basic guarantees for the students to succeed in employment after graduation. Within four-year learning, the innovative and applied practices are never paused.

Through continuous exploration and summarization, according to the course development, the practical project, topic design, practical training and practice are integrated to basic practice reflecting course knowledge, comprehensive practice stressing application, design research to cultivate innovative design and exploratory researches, which form four-layer progressive practical teaching system including basic practice-comprehensive practice-design practice-research and exploratory practice.

D. According to Characteristics of Garment Design, We Take the Lead to Raise "Four-Promotion Teaching" Mode.

"Promote basis through practical training, promote innovation through competition, promote practice through projects and promote employment through practice". Continuously explore and summarize teaching experience, innovate the teaching modes and methods, greatly push effective practical teaching mode such as the "four-promote teaching" mode and so on.

VI. ACHIEVEMENTS

Aiming at the cultivation goals of applied talents in independent colleges, we should renew teaching philosophy, establish a school-enterprise cooperation to joint cultivate innovative and applied talents, create a practical teaching system with multiple ways, forms and layers, and establish a long term and stable teaching, practice and employment platform. Renovate the practical teaching course system and contents, adopt diverse forms such as online and offline teaching practice, project teaching, promoting learning through competition and so on to achieve the goals to cultivate innovative and applied talents. Modularize the course structure, layer the experimental contents and integrate the teaching and scientific research. Modify the talent cultivation programs, add practical hours, open innovative and startup practical education courses; in recent two years, there are 200 persons/times for visit and practice in enterprises, over 80 persons/times for post practice, 15 employed by school-enterprise enterprises, 100% employed for initial employment, and the proportion of students who are engaged in what they have learned is higher. hold garment performance and topic show, apply for 5 quality projects, 2 at provincial level, 1 high quality course, 1 innovative project, 1 teaching achievement project, 1 teaching development project; many articles published, 3 artistic work;

Project teaching, teaching achievements are turned into over 70 products, bringing economic value of 1.5768 million yuan, promotion of students' innovation and startup: Instruct 8 college-level innovation and startup projects, 4 of which are at provincial level; win 1 first prize, 1 second prize, 3 third prizes as well as excellent prize and finalist during design works competition.

VII. CONCLUSION

"Internet Plus" school-enterprise cooperation for talent cultivation is to gather quality innovative and practical resources through multiple channels, create a carrier for the society, industries and colleges to cultivate talents jointly. The college and Baoli Company shall take the lead to integrate the textile, surface material, design, process, washing, quality inspection, post process and sales into industrial clusters, and set up a more professional teaching, practice and employment platform. Through the innovative practice of construction of learning and production-based after-school practice bases, the empirical research obtained, theoretical innovation, important progress and construction achievements will provide important theoretical basis and experience shared for garment design at independent college to explore the applied talent cultivation mode. With the further advancement of teaching reform, students' abilities of practice and innovation have been improved continuously, which guarantees the teaching quality and the students' employment reaches 100%. The achievement has been promoted to other majors in our department, and the results of other majors are becoming more and more excellent, going with a bright future.

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