Practice and exploration of collaborative education of “three financial and three links” in application oriented Universities

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Abstract: Taking the teaching reform of Engineering Cost Specialty in Wuhan University of Bioengineering as an example, this paper constructs the dynamic collaborative education “micro” mode of “three fusion and three links”, highlights the students’ craftsman spirit, cultivates a large number of professional elite, highlights the professional characteristics, and achieves good results, which provides a useful reference for the cultivation of high-quality applied talents.

Key words: craftsman spirit; Collaborative education; practical personnel

Colleges and universities shoulder the important task of cultivating high-quality talents to meet the needs of society, developing scientific knowledge and serving the society. How to keep pace with the times and cultivate high-quality applied talents is an important proposition for Applied Colleges and universities in the new era. Taking the engineering cost specialty of Wuhan University of Bioengineering as an example, this paper takes the lead in the “micro circle” of Application-oriented Colleges and universities to try to build a “micro mode” of deep integration of production and education and collaborative education, integrate the cultivation of craftsman spirit into the teaching process, and explore an operable and replicable successful mode to improve the quality of application-oriented talent training.

1. Collaborative education and construction of Applied Talents Cultivation Mode

From the perspective of “micro circle” of Application-oriented Colleges and universities, guided by the theory of collaborative education, the college, the “Party member workstation” and the “BIM maker Park” are integrated to “improve the quality” and symbiotic efficiency through three dimensions of interconnection and interaction, forming a “three fusion and three links” layout, and building a “micro mode” of collaborative education, morality and technology in the college.

1.1 "Service" first, establish yourself and others, and pay attention to quality shaping

By giving full play to the role of peer education and creating a party member workstation, the brand project of “three groups and two posts” has gradually formed in practice, including five kinds of community activities, namely, the senior help group, the guidance and publicity group, the learning bully help group, the professional learning pioneer post and the volunteer service post. In the “service pioneer” action plan, students can choose “1+x” to participate, Practice the spirit of model worker and craftsman in real life, constantly sharpen students’ character, play a positive role in students’ professional skills and knowledge learning and practice, and broaden the path of talent cultivation.

1.2 "Craftsman" cultivation, integration of expertise and innovation, and outstanding ability cultivation

The college built its own BIM maker Park, which mainly consists of six practice and training places such as BIM training center, carpentry workshop and Measurement Studio. In combination with the four teaching objectives of safety, ecology, wisdom and culture, the college implemented the “young craftsman” cultivation plan, designed project classes against the job standards of industrial enterprises, and increased the “viscosity” between craftsman spirit and professional skills in teaching, Through the combination of competition and learning and the school enterprise dual system mode, the students’ professional key abilities of being a family and country and working professionally are cultivated to expand the effect of education.

1.3 "Three dimensional" linkage, co construction and sharing, forming a circle effect

In the context of collaborative education, the college interacts with the Party member workstation, the college with BIM maker Park, and the Party member workstation with BIM maker park. A series of actions, such as school enterprise alliance, technology sharing, and combination of education and training, are carried out to integrate students’ majors, practices, employment, innovation and entrepreneurship inside and outside the classroom, Build a multi-dimensional community on the basis of integration and commonality, and form a self gain cycle of collaborative education.

2. Cultivate craftsman’s spiritual ecological culture by combining morality and technology

Relying on the craftsman spirit as the carrier of deepening collaborative education, it provides a new opportunity and opens up new ideas for the combination of morality and technology. Based on this, we should build an ecosystem of student-centered education, a learning ecosystem of class, post, certificate, competition and creation, and a school enterprise ecosystem of co construction and sharing based on the “craftsman spirit”, so as to form a collaborative education and cultivation ecosystem of education, learning and employment.

2.1 Taking students as the center, shaping the education ecosystem

Adhere to the principle of morality and talent cultivation, identify the cohesion between professional education and curriculum ideological and political education, combine the value fit with knowledge acceptance, and take responsibility, good at reading pictures, design, management and management as the training objectives to deeply explore the ideological education elements contained in campus culture, such as qianxuesen square, qiusuo academy and campus Great Wall as the carrier of engineering projects, Connect with the

knowledge taught in the course and explore its inherent spiritual value. Based on the “red innovation leader training camp” of the college, industrial craftsmen, enterprise engineers and excellent alumni were invited to the school to carry out face-to-face communication activities such as lectures, professional demonstrations and interviews, sublimate knowledge transmission and condense ideological and political values in a way close to life, and implement the results of collaborative education.

2.2 Integrate the learning ecosystem with the chain of class, post, certificate, competition and creation

Through the whole chain of learning, the training of students’ professional quality and skills will be integrated with professional education and collaborative education according to the principles of course post connection, course certificate integration, course competition integration and competition creation combination. Through project-based training, the theoretical knowledge learned in the classroom will be supplemented and improved through practical exercises, and professional skill competitions at all levels, vocational qualification examinations, andFor extracurricular practical self-help projects such as innovation and entrepreneurship credit certification, students can try to choose X project to participate in. In the challenge of upgrading the project, they can improve professional work skills, accumulate work experience, and form a high-quality and harmonious learning ecosystem.

2.3 Constructing school enterprise ecosystem with co construction and sharing as the carrier

Based on the campus cultural resources, the school and enterprises jointly build and share, develop the work study culture with the cultivation of professional quality as the core, focus on improving the relevance of enterprise activities and student association activities, and further cooperate with each other on production, learning, research and application to jointly solve technical problems. Build enterprise experience venues such as college students’ Entrepreneurship incubation center and agricultural culture and tourism base, integrate production elements into campus activities, classroom and life, let students feel the real working environment and enterprise management mode, experience the blending of campus culture and enterprise culture, and gradually shape the school enterprise ecosystem of craftsman spirit.

3. Gradient target, build applied talents cultivation system

The curriculum construction orientation of anchored learning to “use” takes ability training as a unit, reconstructs the curriculum content, creates modular project class, and builds three-point integrated curriculum teaching resources of “knowledge point + skill point + quality point”. The difficulty of the implementation of the curriculum system rises spirally according to the three training stages of professional enlightenment, professional introduction and professional perfection.

3.1 Learning stage based on professional inspiration

This stage is the general knowledge education and training stage, which generally lasts for 2-3 semesters. It mainly takes public basic courses and professional basic courses as the learning courses, supplemented by enterprise cognition courses and professional ethics courses as the practical learning courses. In the study of professional backbone courses such as “Introduction to specialty”, “bidding and contract management” and “project cost management”, the industry-leading technologies such as BIM Technology are integrated to consolidate students’ professional theoretical knowledge and professional quality.

3.2 Learning stage based on professional development

At this stage, the form of learning is post practice, which usually lasts for 2-3 semesters. It pays attention to the integration and expansion of engineering management professional knowledge, regularly revise the talent training plan, revise the relevant software training courses used by enterprises, and constantly update and improve the teaching materials through teachers’ temporary training, inviting enterprises and colleges to jointly develop and develop, Improve the adaptability of professional training and enterprise practice. At the same time, by promoting learning through competition, improve the operation ability of BIM software, constantly temper professional competitive level and skill proficiency, and increase high-level and challenge.

3.3 Professional excellence oriented learning stage

This stage focuses on the comprehensive application ability of BIM model. The learning form is the internship stage of enterprises. The learning period is the last semester before graduation. The teaching link of graduation comprehensive internship is completed. Two ways are adopted, i.e. introducing enterprises to schools and introducing schools to enterprises. The tutor guidance system is implemented. The enterprise tutor is responsible for job skills training, Teachers are responsible for the design of graduation thesis and assisting the daily management of enterprise tutors, so that students can have the basic professional quality, master the basic skills of the post, and achieve the goal of teaching and learning.

4. Unity of knowledge and practice to realize the whole process operation training

In order to improve the employment competitiveness of students, through the “four in one” of teaching and guidance, production and learning, learning and doing, and class and post, the whole process operation of collaborative education is realized through linking classroom to training, theory to practice, school to enterprise.

4.1 The integration of teaching and guidance, and the implementation of the "ternary tutor" system

Strengthen the cultivation of students’ professional quality from the three aspects of Ideological and moral cultivation, professional theory education and practical skills education. Ideological and political management cadres and professional teachers serve as professional mentors and ideological and political mentors respectively, and employ enterprise technical experts and “craftsmen” as project mentors to jointly form the “ternary mentoring” system, Provide team guarantee for training builders and reliable successors of the socialist cause.

4.2 Integration of production and learning, reconstruction of professional curriculum system

With the "use" as the anchor, highlight the practice and training teaching in the professional core courses. By increasing the proportion of the training courses in the talent training program, introducing enterprise software and hardware supporting facilities, jointly developing courses, jointly negotiating the practice and training mode, and jointly incubating innovation and entrepreneurship projects, students can feel the requirements of enterprises for the spirit of craftsman in practice.

4.3 Integrating learning and doing, developing new teaching mode

The introduction of industry standards in the course teaching and the implementation of the "working process + project leading" system enable students to consciously learn, understand and practice the craftsman spirit in the transformation of their role from an educatee to a professional, realize the integration of the teaching mode with the needs of enterprises, and form the continuous development of students' vocational quality education mode.

4.4 Integrating courses and posts to optimize the practice environment

In the construction of students' practice and training, students are the main body and ability is the standard. The simulation practice teaching method is introduced into the teaching. Relying on the BIM maker park to deepen the "training factory" of school enterprise cooperation, new joint school running modes such as "introducing enterprises into schools" and "introducing schools into enterprises" are actively explored. New technologies, new processes and new specifications are constantly updated and integrated into the course teaching content, Promote the integration of classroom teaching and post production.

5. Effectiveness of teaching reform

In order to understand the progress of collaborative education and verify the quality of application-oriented talents through the tracking survey of graduates, a telephone sampling survey and interview were conducted on the 2010-2019 engineering cost graduates of Wuhan University of Bioengineering. Based on the existing research results and conclusions, the following conclusions are drawn:

5.1 Realized the precise training of talents

The practice and exploration of the collaborative education of "three integration and three links" has improved the compatibility between school talent training and social needs. Students can master the basic theoretical knowledge of the industry and have the ability of on-site practical operation technology. They have become innovative industry talents with the ability of cross-border knowledge integration. This training mode realizes the precise docking of science and specialty development and industrial transformation and upgrading.

5.2 Expanded the professional curriculum system

Reconstruct the personnel training system and highlight the practicability of professional courses. On the one hand, we should increase the proportion and content of practical courses, jointly develop professional courses with cooperative enterprises, and highlight the practice and training teaching in the core courses. On the other hand, the introduction of enterprise hardware and software supporting facilities, the use of enterprise management system and operation mechanism to implement practice training, so that students can feel the spirit of craftsman in practice.

5.3 Enhanced the ability of the school to serve the society

The teaching mode is in line with the industry and enterprise standards, and the curriculum teaching reform is implemented in the way of "working process + project guidance", which enables students to experience the role transformation from educatee to professional person level by level from the beginning of receiving professional education, so as to consciously learn, understand and practice the craftsman spirit.

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Innovative application strategy of lacquer art in cultural and creative product design

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Abstract: lacquer art is an important component and excellent representative of China's traditional crafts. It is China's enduring and increasingly powerful creation culture, carrying the Chinese nation's pursuit of beauty and profound cultural and artistic heritage. Under the background of the new era, exploring the inheritance and innovation of lacquer art in the design of cultural and creative products will help cultural and creative products and IP to a higher level. Therefore, it is important to explore the aesthetic style of traditional lacquer art and the innovative significance of lacquer art in cultural and creative products. On this basis, it is more important to explore more design strategies for the application of lacquer art in cultural and creative products, It provides new ideas for inheriting and revitalizing traditional lacquer art, and new forces for innovation and development of cultural and creative industries.

Key words: traditional lacquer art; Cultural and creative products; Innovative application; design strategy

Introduction

Cultural and creative products generally have rich cultural connotations, which can reflect the designer's understanding and external expression of the culture of a country or a region in a certain period of time, and are the synthesis of people's aesthetic needs and good wishes. It is an important path for the development of cultural and creative products at this stage to design cultural and creative products with humanistic characteristics and artistic value by digging the connotation of cultural and creative products and combining the daily life and cultural concepts of the people in the pre invested areas. Rooted in the thick soil of the people, we can draw inspiration from lacquer art works and crafts, and finally create classic lacquer art cultural and creative products, which will boost the modernization of cultural industry and cultural and creative products, which is worthy of further exploration and practice.

1. Aesthetic style of lacquer art

1.1 Material beauty

The material itself has practical and aesthetic value, and the lacquer art has both the beauty of texture in terms of the beauty of the material, thick and warm, temperament and elegance, bringing people the enjoyment of form and beauty from all aspects. Important leaders

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