

## Research on the Construction Practice of Art Design Specialty Cluster Based on “Project Practice, Post Progression”

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**Abstract:** In order to better promote the development of vocational education, this paper takes the development and construction of the art design specialty cluster of the Animation School of Hainan College of Software Technology (hereinafter referred to as the college) as an example, and focuses on the fact that the specialty cluster of the college adheres to the main line of “inheriting culture and serving the local area”, and the multi-party interaction among the government, the industry, the enterprise and the college has formed a practical teaching team and built a project-oriented and practical studio group platform. The curriculum system of “basic platform + post course” has been established, the hierarchical and progressive teaching method has been implemented, and the new paradigm of “project practice and post progression” teaching mode of art design majors which aims to inherit local culture has been pioneered.

### 1. Introduction

In order to effectively solve the problem of the disconnection between the local development of higher vocational colleges, the inheritance of local culture in the construction of art and design specialty cluster, students’ lack the sense of local cultural identity, the students supply is out of line with the industry demand, and the teaching objectives lack the pertinence of industry standards, guided by the General Secretary Xi’ Thought on Socialism with Chinese Characteristics for a New Era, the specialty cluster of the college has thoroughly implemented the spirit of the “National Implementation Plan for Vocational Education Reform”. According to the requirements of the “National Vocational College Teachers’ Teaching Innovation Team Construction Plan”, “Deepen the implementation plan for the reform of the construction of double-qualified teachers in vocational education in the new era” and the “14th Five-Year Plan for Vocational Education in Hainan Province” based on serving the construction of Hainan Free Trade Port, it unites influential domestic enterprises, cultural pillar enterprises in the province and rural revitalization enterprises with solid skills to jointly develop cooperation projects, formulate talent training programs, develop core courses, and establish curriculum resource platforms. According to the requirements of developing type education, it is regarded as the key measure of school teaching reform. It attaches great importance to ideology, carries out systematic planning and scientific arrangement, strengthens process management, takes the reform of teachers, teaching materials and teaching methods as the starting point, and constructs the benign operation mechanism of the development of teachers’ teaching innovation team. Standing at the height of a strong country in education and skills, we should combine team building with national standards and program construction. Through the joint efforts of all members of the teaching team, we should create a high-level professional group with high-quality development, serve the upgrading of the industry’s double-qualified teachers, summarize their experience and practices, and strive to form a Hainan plan with Hainan characteristics of vocational education and teacher training. It is embodied in the following aspects: adhering to the main line of “inheriting culture and serving the place”, linking government, industry, enterprise and college, forming a practical teaching team, and building a project-based practical specialty cluster.

## **2. The Path and Method of the Construction of Art Design Specialty Cluster**

### **2.1. Deeply Excavate Local Cultural Resources**

We should Refine project content based on local culture, and integrate Hainan local cultural elements into project, so as to serve the development of the local area and solve the problem of inheritance with the local cultural as well as the students' lack of local cultural identity. In traditional vocational education, the excavation of local culture in the school-enterprise cooperation development project still stays at a superficial level. Therefore, in this research, a number of cultural and creative achievements with local characteristics have been formed, which fully demonstrate and spread Hainan 's local culture. In the process of project creation, students form a strong interest in local culture, their cultural identity has been enhanced, and their cultural self-confidence has been strengthened.

### **2.2. Government, Industry, Enterprise and School Work together to Form a Community of Shared Future for the Integration of Industry and Education**

Introducing masters and enterprise backbones from industries, improving the skill level of professional teachers, and forming a practical teaching team; solving the problem that the teaching supply is out of line with the industry demand, and the teaching standard lacks the pertinence of the industry standard. In view of the problems in professional construction, such as the lack of close linkage among government, industry, enterprise and school, the lack of practical experience of teachers, and the lack of pertinence of teaching standards, under the guidance of Hainan Provincial Cultural Tourism Office and Qionghai Municipal Party Committee Propaganda Department, as well as the relevant teaching guidance committees and industry associations, the professional group determines the research direction and project topic selection of Hainan local cultural projects. Prof. Wang Wei of Peking University and Prof. Luo Xun, director of VR Committee of China Computer Society, are introduced as special professors to form a super master team. It needs to send professional backbone teachers to enterprises to improve the level of teachers' technical skills, and set up a team of tutors; it also asks the enterprise to dispatch technical backbones to the school to guide the students ' project practice and set up the master team; therefore, a practical teaching team has been composed by super masters, tutors and masters. Masters bridge the school with CCTV Animation Co., Ltd. and other industry leading enterprises to build a studio to develop practical projects, and connect the domestic well-known scientific research institutions to jointly set up Hainan Digital Twin and Intelligent Network Interconnection Innovation Laboratory to develop Hainan application scenarios Digital Twin project. In cooperation with local enterprises, they establish coconut culture R&D center to develop Hainan characteristics coconut carving cultural and creative works and inheritance coconut carving intangible cultural heritage technology; the tutor is responsible for the management and evaluation of the project, and guides the students' project practice. The enterprise master participates in project management and technical guidance, and the school and enterprise jointly carry out project production. Under the guidance of the master team, industry standards and enterprise production processes are introduced into the professional teaching system. It has realized the multi-party linkage of government, industry, enterprise and school, mutual employment of teachers, co-construction of bases, co-management of talents, and co-research of technology, and created a community of shared future for the integration of industry and education.

### **2.3. Establish a Curriculum System of “Basic Platform + Post Course” to Cultivate Students’ Professional Ability of Multi-skill and Integration**

Building a project-based practical studio group platform and implement a hierarchical and progressive teaching method; it solves the problem that the single teaching mode is out of line with the needs of students' diversified development, and students' lack of job adaptability and learning initiative. Focusing on the cultivation of the post ability of cultural and creative industries, according to the idea of “sharing the underlying courses, shunting the middle-level posts, and exchanging the high-level projects”, the school-enterprise joint developed the curriculum system of “basic platform + post course”, and integrated the enterprise production standards and industry technical standards

into it. The basic platform' course is composed of public basic courses and professional basic courses, which reflects the thick foundation and wide caliber and trains students to have the basic ability of project practice. The “post course” is composed of core post courses and extended post courses. Each studio derives several post courses according to the posts required for the actual project. With the goal of completing the project practice, students choose a core post course for core skill training, and then choose the post course of this studio or other studios to expand, so as to realize the integration of one specialty and multi-ability. In the process of choosing the post course, the tutor guides the students to choose the appropriate post course and cultivate the characteristics according to the students' individualized development and career orientation. Based on the working process, the curriculum system with distinctive post characteristics, outstanding professional ability, task guidance, project orientation and work-study combination is constructed.

The project-based practical studio group platform is built by matching the job requirements of cultural and creative industries, combining the research direction of teachers' team and students' personal learning ability. The studio organizes teaching practice by referring to the mode of enterprise production management, so that students can learn and be trained in the situational environment of enterprises. Students need to complete three advanced projects in the working room, namely, practice teaching project, universal practical project and high-level practical project, supplemented by information-based learning means, and actively learn corresponding knowledge and skills. First, students enter the studio to carry out the production of exercise-based teaching projects with basic job skills standards, improve professional basic skills, and understand the basic process of project operation; after the completion of the project, through the evaluation, the students who did not reach the standard of the exercise type project continued the training of the project. When the evaluation reaches the standard, the students choose universal projects in different directions according to their own characteristics, and then carry out the actual project. Teachers arrange specific project positions according to the difficulty of project tasks and students' ability, and implement teaching at different levels. According to the assessment of students' completion of universal practical projects, teachers implement dynamic stratification according to students' cognitive ability and practical level on the premise of respecting students' personality development. Some students with strong ability enter the elevated practical project team to complete more difficult practical projects. Other students continue to carry out universal practical projects and master more skilled professional skills. According to the needs of the project, the project can be completed by a studio alone, or the positions required for the project can be selected in the studio group to form an interdisciplinary project team to complete the project and achieve professional integration. In the teaching process, guided by the project and centered on the students, the teacher guides, manages, answers and evaluates the students, improves the students' autonomous learning ability, and truly realizes the goal of teaching students in accordance with their aptitude and talents.

### **3. Innovative Achievements in the Construction of Specialty Cluster**

#### **3.1. Theoretical Innovation**

##### **3.1.1. Initiate the Teaching Mode of “Project Practice and Post Progression” Based on Local Cultural Heritage**

The novelty search report shows that the teaching mode is the first in this territory. Its theoretical innovation is based on the theory of constructivism theory, with student-centered, and making practical projects as the starting point, to mobilize students' enthusiasm and initiative in learning, so that students can construct new valuable cultural products according to their own knowledge and through the understanding of local culture, and finally achieve the goal of self-confidence in local culture.

##### **3.1.2. Based on the Synergy Theory, through the Excavation and Inheritance of Local Culture, from Disorder to Order, All Parties Move in the Same Direction**

Based on the common characteristics and synergy mechanism of different organizations such as

government, industry, school and enterprise, a community of shared future for the integration of industry and education is formed. Around the talent demand of cultural and creative industries, each major complements each other and cooperates with each other to educate students, forming a specialty cluster of animation production technology; students of different cognitive levels cooperate with each other in the process of completing practical projects to improve the learning effect.

Based on the game theory and setting win-win cooperation between schools and enterprises as the goal, it is necessary to find the starting point of cooperation, emphasize the cooperation of group rationality, efficiency, fairness and justice, so as to ensure long-term and smooth cooperation, and maximize the profits of enterprises and enhance the level of personnel training; students can form a benign competition mechanism in the process of participating in practical projects, and gradually realize the improvement of students' vocational skills.

### **3.2. Practical Innovation**

#### **3.2.1. Integrate the Local Culture Inheritance into Teaching Content**

The projects created by vocational colleges are mostly commercial outsourcing projects or simulation projects, paying less attention to cultural inheritance and innovation, and the research on local culture stays in the superficial stage. The speciality cluster takes “inheriting culture and serving the local” as its mission, deeply excavates the connotation of local culture, refines the elements of local culture, incubates local cultural projects, integrates the inheritance of local culture and curriculum teaching, and completes the achievements of the integration of diversified Hainan local culture and vocational education.

#### **3.2.2. Build a Platform for Integrating Studio Groups and Implement a Hierarchical Progressive Teaching Model**

Docking actual projects, decompose a number of project positions according to the project requirements, and adapt to the corresponding functions of the studio. The multi-studio collaborative project team is formed to promote the integration of work functions and professional information exchange between studios. The integration of the studio group platform is conducive to the cultivation of complex employment needs in the industry and the promotion of students' multi-skills. In the studio, the teacher arranges the specific project post content according to the difficulty of the project task and the students' ability, and implements the teaching in layers. After completing a cycle project, the students can enter the next advanced project position after multi-dimensional, process-based and performance-based assessment. Students at different levels promote each other and grow together. Through project-driven, hierarchical monitoring and training of ability goals, students' professional ability is progressively cultivated.

## **4. Construction Content of Teaching Reform Achievements**

### **4.1. Value Guidance**

This requires to establish common values among team members and build cohesion at the spiritual level of the organization<sup>[1]</sup>; improve the system of teachers' moral construction and improve the ideological and political quality of teachers. It also needs to strengthen teachers' ideological and political learning, and promote the integration of ideological and political learning into education and teaching, product innovation and other links. Meanwhile, it is necessary to establish a teacher's ethics supervision and assessment agency, pay attention to strengthen the supervision of teachers' ideological and political quality, teacher's ethics, etc., strengthen the evaluation of teacher's ethics, reflect the reward and punishment, implement the negative list system of teacher's ethics assessment, and focus on solving the problems of teacher's ethics anomie and academic misconduct. The establishment of team development planning and management system recognized by all members can let everyone know the direction of common efforts and stimulate the creativity of all members. At the same time, we should improve the assessment and evaluation rules, implement team work responsibility and performance management, strictly implement the work target reward and

punishment plan, and stimulate the team's work motivation. The team leader should continuously optimize the performance distribution method and the dynamic adjustment mechanism of team members, and create a good environment for outstanding talents to reveal themselves<sup>[2]</sup>.

## **4.2. Task Promotion**

It requires to taking the typical tasks of the profession as the main line, lead the cooperation and integration of the teacher team in personnel training, professional construction, professional development and other aspects, and create a community of technical skills accumulation and inheritance<sup>[3]</sup>.

### **4.2.1. Focus on Industrial Development and Establish a Dynamic Adjustment Mechanism that is Mutually Compatible and Complementary with the Industry**

The digital creative industry and the cultivation of cultural creative design talents in regional colleges and universities are investigated and summarized, and practical development strategies are formulated. According to the market demand, we should develop the newly emerging majors and small professional directions that are urgently needed by the industry, have broad market prospects, cross-disciplinary categories, dynamically adjust the professional layout, deepen the new model of diversified professional construction and development of win-win cooperation between government, industry, enterprise and school, and promote the mutual adaptation and complementarity of various majors and industries in the group, so that it has the ecological characteristics of all-round, multi-level, open and cross-interaction, and can realize the open integration, resource sharing and complementary advantages of various specialties, as well as specialties and industries in the group.

### **4.2.2. Unify Leading Enterprises in the Industry and Set up Industrial Colleges**

Through the industrial college, the teaching resources and enterprise resources are fully integrated to achieve the docking of professional settings and industrial needs, the docking of course content and professional standards, the docking of teaching process and production process, the docking of graduation certificate and professional qualification certificate, and the docking of vocational education and lifelong learning. It needs to promote the transformation of the project teaching results of the industrial college into market-recognized products, and further revise the course teaching with market feedback information<sup>[4]</sup>.

We should rely on the technical service platform, adhere to the docking of high-end industry, professional strengthen cooperation with high-end enterprises in the industry, so as to provide high-quality talent supply for enterprises. Schools and enterprises build a communication platform, joint enterprises to develop school-enterprise cooperation projects, and conduct horizontal research.

We should also integrate the elements of excellent traditional culture, Hainan local culture, Li culture and red culture into the curriculum development. This requires us to unite enterprises and rely on professional studio teams to create intangible cultural and creative products. By facing the key areas of arts and crafts and the emerging categories of cultural and creative industries, it can implement the transformation of achievements and promote the optimization and upgrading of regional cultural and creative industries to serve the regional social and cultural development. We should also build Hainan Coconut Culture and other brands in order to help rural revitalization.

Based on “digital art + tourism”, we can use the existing characteristic resources and the brand effect of the studio, rely on the virtual reality innovation center, 3D printing studio, coconut culture collaborative innovation center, animation production line, advertising creative workshop, South China Sea artisan studio, etc., to establish a popular science research base for primary and secondary schools. We can also create a number of popular science highlights such as the red VR party building exhibition hall, the development of handicrafts of Hainan 's intangible cultural heritage, the display of Hainan 's original series of cartoons, the research of Li culture and the development of cultural and creative products, to form a popular science research base with outstanding brand and obvious characteristics of Hainan.

### **4.3. Role Specification**

On the basis of giving full play to the specialty of team teachers, they should clarify their responsibilities, and carry out collaborative teaching and technological innovation on the basis of division of labor. According to the members' willingness to rotate between groups, a very small number of teachers who cannot meet the requirements of team building can be adjusted to adapt to the professional and diversified development of teachers, which is conducive to the growth of young teachers. Teachers can construct the role system norms of team leaders, backbone teachers, full-time teachers, enterprise technicians, etc., to clarify role tasks and work responsibilities, and give full play to their respective strengths; They can also strengthen communication, build a team atmosphere of trust, honesty and democracy, and promote team work<sup>[1]</sup>.

### **4.4. Ability Improvement**

This requires to organize teachers to learn advanced vocational education theory and enrich the cognition of vocational education theory; Teachers improve their professional skills through enterprise post placement, horizontal project research and development; Organizing teachers to participate in national training, provincial training and other special training can improve the level of theoretical research; Teachers participate in curriculum research and development, standard research and development, project application, skills competition activities to improve ability.

According to the characteristics of strong practicality of animation specialty cluster, teachers are regularly trained in professional teaching methods, curriculum development technology and information technology application, so as to cultivate teachers' teaching reform and innovation ability, teaching design and implementation ability, so that teachers can adjust teaching methods according to their learning situation, teach students in accordance with their aptitude, skillfully use modern information technology, and develop digital teaching resources. All teachers should participate in special training such as standard formulation of animation specialty cluster, 1+X vocational skill certification standard development, talent training program revision, clarify the status and role of the courses taught in talent training, and improve teachers' professional construction ability.

#### **4.4.1. Expand International Vision, Carry out Overseas Training**

According to different professional fields, it carry out online and offline, domestic and overseas training for innovative teams, so that teachers can understand foreign leading vocational education concepts, advanced vocational education management methods and innovative education systems, and broaden their international vision. Innovative team members are selected in batches to study the advanced experience of vocational education abroad, and overseas vocational education experts and scholars were hired to carry out online training.

#### **4.4.2. Training in Enterprise to Enhance the Post Practical Ability**

Teachers are selected to participate in post practice training in enterprises, learn the latest technologies in the professional field, grasp the development trends and trends of the industry, and skill needs of the post, so as to enhance teachers' experience in front-line positions in enterprise production and management, and improve teachers' post practice skills.

Professional leaders can be trained by developing a training plan for professional leaders and taking measures such as visits and exchanges, enterprise practice, project research, and academic qualification. It focus on training their professional construction capabilities, scientific research and social service capabilities, and achieve high quality in related fields.

We can develop a teacher's double quality training plan and a backbone teacher training plan, implement rotation training for all teachers, participate in enterprise practice, participate in major technical skills training or non-academic training, participate in domestic and foreign exchange programs and study visits, and support teachers to focus on social services, technical training, teaching training, etc. At the same time, we can also employ business experts with rich practical experience, excellent technical skills and more industry resources as part-time teachers, organize part-time teacher forums or seminars, and strengthen the education and teaching level of the part-time

team<sup>[5]</sup>.

#### **4.4.3. Construct a School-Enterprise Teacher Training Base Jointly**

As the leading unit and the main body of the base, the school selects high-level and influential cooperative enterprises to establish practical bases, forms a collaborative training platform, formulates base construction plans and training mechanisms and standards, and plays their respective advantages with enterprises and other partners. With close cooperation, and division of labor, jointly complete the training tasks such as improving education and teaching theory, improving professional and technical quality, and improving practical operation skills.

### **5. Conclusion**

Through a series of reform and innovation, the art and design specialty cluster of this college constructs a shared curriculum group and creates an open, shared and sustainable productive training base to realize the sharing of advantageous resources through the way of resource integration. While reducing the cost of education and saving the investment in education, it improves the overall level of the teaching staff of the college, improves the teaching ability and practical ability of teachers, and then promotes the all-round development of the college and realizes the “win-win” between higher vocational colleges and employers, so as to ensure the smooth employment of students and provide new vitality for the development of regional economy, and thus effectively alleviate the shortage of technicians and labors.

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