

A Practical Study of Modern Apprenticeship System Promoting the Integration of Vocational and Creative Education

—Taking the Major of Environmental Art Designing as an Example

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Abstract: This paper takes the Environmental Art Designing major as a sample, uses the modern apprentice systems to explore the practice research on the integrated education of special creation for art majors in higher vocational colleges, and constructs a progressive integration of professional creative teaching modes in the process.

1. Introduction

The opinions of the State Council pointed out that promoting mass enterprise and innovation is the source of power on development, and the strategy to strengthen the country ^[1]. In the same year, the Ministry of Education requires that according to the needs of high-quality innovations and enterprise education, the cultivation on the innovative consciousness and thinking should be integrated into the whole process of education and teaching. Gather the elements and resources of innovation and enterprise education, and build a scientific and reasonable special curriculum (group) of innovation and enterprise education ^[2]. In combination with their own running characteristics, higher vocational colleges explore the paths and action plans for the integration of professional education and innovation as well as enterprise education, and integrate innovation and enterprise education into the whole process of talent training, which are other important topics higher vocational colleges are facing about ^[3].

2. Progressive Integration Mode of Education and Innovation as well as Enterprise Education on the Major of Environmental Art Designing

At present, the practice of the integration of vocational colleges and universities still has the phenomenon of students' needs, social needs and the dislocation of talent training system. In the aspect of students' needs, students realize the importance of improving their abilities of innovation and entrepreneurship. The Globalization Think Tank showed that more than 60% of the university students are interested in innovation and entrepreneurship, and 97.93% of the students expressed the need to carry out innovation and entrepreneurship education, expecting that entrepreneurship can make individuals grow continuously and realize their self-worth. More and more enterprises need "T-type talents", that is, not only professional expertise, but also comprehensive capabilities, such as leadership, resource integration, team cooperation, etc. This requires that future talent training is not limited to a specific type of post abilities, but the "abilities group" training required by the whole industries and all the links of the industrial chains, which can be cultivated by innovation and entrepreneurship education. In terms of the training systems of professional talents in colleges and universities, the innovation and entrepreneurship education in higher vocational colleges has not been integrated into the training system of professional talents yet. Even though some required and elective courses for innovation and entrepreneurship are added to the talent training programs, lectures, societies, skill competitions and other activities are carried out after classes, the integration of innovation and entrepreneurship education and professional education is still not enough. They

involve professional knowledge and are independent of each other. Innovation and entrepreneurship education cannot be carried out separately from professional education, nor is it a simple superposition. Innovation and entrepreneurship education should be included in the training program for professional talents to improve the innovation and entrepreneurship abilities, so as to improve the qualities of talent training.

The major of Environmental Art Designing of Tianjin Light Industry Vocational Technical College has been studied and explored in the aspects of the renovation of talent training program, Environmental Art Designing industries, the deconstruction of enterprises, and the reconstruction of the teaching activities on the integration of specialty and creation. This paper puts forward the idea of trying to use modern apprenticeship to promote the integration of vocational and technical education. Through the follow-up training of apprenticeship experimental class, we put forward the progressive integration mode on the professional education as well as innovation and entrepreneurship education of Environmental Art Designing as the theoretical mode of practical research guidance, as shown in Figure 1.

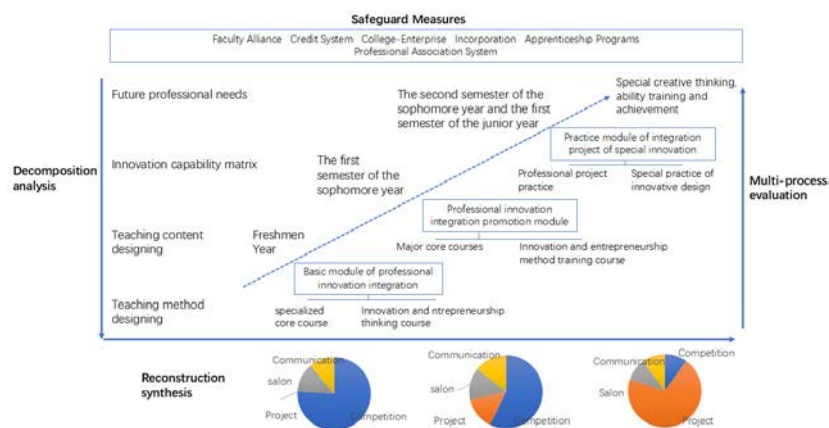


Figure 1 progressive integration model framework of Environmental Art Designing education and innovation and Entrepreneurship Education

Base on the system designing, the training process of Environmental Designing Art majors is first an overall system that is gradually promoted, with the ultimate goal of "professional creative thinking, abilities training and achievement" of students, which runs through a main line of three-year professional teaching in higher vocational colleges. Through full cycle, all-round and phased accompanying education, orderly teaching, guidance and practice, promote the organic integration of innovation and entrepreneurship education and professional education science, so that students can become future professionals and lay a solid foundation. The whole training process consists of the basic module, the promotion module and the project practice module, which correspond to the three stages of the freshmen year, the first semester of the sophomore year, the second semester of the sophomore year and the first semester of junior year. In the first stage, in addition to the completion of professional foundation, students focus on innovation and entrepreneurship thinking courses, while building activities with rich content and expanding the horizons of students. It mainly carries out the cognitive education of specialty and innovation and entrepreneurship, cultivates the interest of innovation and entrepreneurship, and reserves the basic knowledge of the integration of specialty and entrepreneurship. The second stage can be completed in the first semester of sophomore year. We will carry out learning and training of professional innovation and entrepreneurship knowledge and skills for students to master. We will begin to design the simple project-based teaching of the professional core course contents step by step, and initially apply the core course contents of innovation and entrepreneurship methods combined with simple projects. At the same time, we can participate in a large number of professional competitions and strengthen the operation of innovation and entrepreneurship methods in professional activities. The third stage is completed in the second semester of sophomore year and the first semester of junior year. The theories and practice of innovative designing are carried out to train the abilities of students on the practice of professional designing innovation. Through the cooperation of colleges and corporations, in-depth integration of

production and education, database designing of Environmental Art Designing majors, and special practice contents of innovative designing are fully integrated into the specific practice of professional projects. In the second semester of junior high school, according to the talent training programs, students are required to practice in the enterprise, mainly by the enterprise training, and experience the contents learned in the early stage in the real project practice.

From the perspective of system operation, the whole process of the integration of vocational and technical education must be implemented from macro to micro and from theory to practice in combination with horizontal and vertical reference systems.

The vertical frame of reference is "deconstruction analysis". The future professional demand refers to the establishment of future professional quality portrait of environmental art Designing by combining industrial development data analysis, industry leading enterprise research, Environmental Art Designing Major interview; the matrix of professional abilities refers to the abilities structure of the target talents in the talent training program through the comparison and integration of the target abilities of innovation and entrepreneurship and the core abilities of future professionals; the Designing of teaching content refers to the flexible Designing of courses, activities and projects according to the content of talent training program to achieve the goal of cultivating the abilities of special creation; the designing of teaching methods refers to the application of effective teaching methods in the specific teaching process to visualize, experience and interact abstract and systematic teaching contents, so that students can effectively master professional theoretical knowledge and practical skills. In practice, teachers use case teaching method and experiential teaching method to form multi-dimensional interactions in teaching and lead students to discuss problems; use brainstorming to gather ideas, guide students to find innovative ideas, and then use mind mapping to sort out innovative points; in the situational teaching, we should lead students to innovate professional projects and deepen their thinking; combined with task driven method, students can learn time management and professional skills application in professional competition; in the process of completing the practical project, let students consolidate the skills of building space function improvement, project management, etc., to gain experience accumulation and improve the abilities of innovative Designing.

The horizontal reference system is "reconstruction synthesis". No matter the content or method of curriculum designing, it needs the carrier of practice. In the whole three-stage training process, according to the core theme, different teaching activities are gradually increased in difficulty, and different proportion of time is allocated, so as to meet both the cognitive development law of students and the requirements of teaching theory. In the first stage, students mainly complete professional basic courses and innovation and entrepreneurship thinking courses, which need to build activities with rich contents and expand students' vision. Therefore, competition (70%), salon (15%) and exchange activities (15%) are the main ones; in the second stage, students will learn and train professional knowledge and skills, innovation and entrepreneurship knowledge and skills, so that they can master innovation and entrepreneurship methods and skills. Therefore, the proportion of project-based activities (30%) began to increase, and competition (60%) still dominated. The third stage is to develop the theory and practice of innovative Designing for students, and to train students' abilities of professional Designing innovation practice. Professional project practice is dominant (70%), competition (10%), communication (10%) and salon (10%) are the auxiliary support of professional project practice.

Multiple process evaluation methods record students' learning and practice process using "professional training portfolio". Portfolio mainly refers to a series of performances, works, evaluation results and other relevant records and materials collected by students under the guidance of teachers to reflect learning achievements or continuous progress information, so as to evaluate students' learning and progress.

The guarantee measures mainly include the guarantee of teachers union, credit system, school enterprise cooperation and other system levels. Teachers' alliance mainly consists of professional teachers, enterprise teachers, innovation and entrepreneurship teachers and counselors, who provide all-round support to students in psychology, career planning, professional learning, etc; the credit

system emphasizes the flexibility of students' study years, the freedom of course selection, the flexibility of assessment methods and the autonomy of learning, which is conducive to teaching students according to their aptitude, to meet students' personalized learning needs to a greater extent, to stimulate students' interest in learning, and to effectively develop students' potential; the school enterprise cooperation has jointly formulated the training plan for environmental art Designing professionals, laying a good foundation for the follow-up work. The system of professional associations requires the College of art and engineering to establish a number of professional associations closely related to the major, focusing on sustainable development and innovative Designing, enhancing user experience and new material application skills, such as "creative painting society", "digital display society", "interior designing innovation society", etc., to form regular exchanges and discussions among professional associations. Each association is equipped with professional teachers and enterprise teachers as guidance to compete with students, carry out research on horizontal topics of enterprises, innovative furniture designing, invention and production, etc.

3. Conclusion

(1) All the related departments work together to promote synchronously, establish corresponding rules and regulations, and provide system level guarantee for the integration reform of special innovation; integrate the concept of integration of special innovation into the talent training program, and integrate the way of enterprise training talents into the process of school training students through the deep integration of production, learning and research.

(2) We should integrate the concept of the integration of professional innovation and entrepreneurship into the curriculum standard, which should reflect the knowledge, skills and quality of innovation and entrepreneurship related to the curriculum content; pay attention to the examination of students' abilities to analyze and solve problems, and explore a diversified, multi-form and multi-standard process evaluation model.

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