

Training of “Modern Apprenticeship” Talents for Art Design Majors in Higher Vocational Education to Help the Development of Creative Industries

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Abstract—The creative industry is an important part of the cultural industry. To develop vigorously, a large number of knowledgeable and innovative art design professionals are required. However, the current output of art design majors of higher vocational education cannot meet the needs of Chinese manufacturing. Aiming at the characteristics of students majoring in art design of higher vocational education, the colleges have initially formed a certain framework and mode through exploration, research and practice — the "multi-layer interactive modern apprenticeship", which can effectively promote the development of school-enterprise integration, guide the reform of curriculum settings and the updating of teaching content, and enrich the form of teaching organization. And then, the quality of talent training has been improved qualitatively, the problem of matching the supply and demand of art design majors of higher vocational education and modern cultural and creative industry has been alleviated to some extent, and the development of creative industry has played a certain role in boosting the demand for talents.

Keywords: *creative industry, higher vocational education, art design, multi-layer interaction, modern apprenticeship*

I. INTRODUCTION

The creative industry is an important part of the cultural industry. With the vigorous promotion of national policies and the rapid development of international exchanges, it has become a rising industry with economic value and cultural connotation that realizes economic transformation.

To develop the creative industry requires a large number of knowledgeable and innovative art design professionals. However, the reform of art design in vocational education has entered a "bottleneck" period. The output of design education cannot meet the needs of China's manufacturing industry. Graduates generally have low learning enthusiasm, low humanistic quality, poor professional skills and other problems. Students' practical ability is weak, and the adaptation process from school to enterprise is slow, so they are unable to start the actual project operation. It can be seen from this that the traditional single closed means of art design education have been unable to meet the needs of the development of market economy, let alone the demand for talents in the cultural and creative industries.

II. ANALYSIS ON MODERN APPRENTICESHIP OF ART DESIGN MAJOR IN HIGHER VOCATIONAL EDUCATION

A. Problems in modern apprenticeship of higher vocational education

The terms of "school-enterprise cooperation", "combination of work and study", "projectization" and "working process" have always been the main research direction of art design talent training mode in higher vocational colleges in China. However, in the specific implementation process, there are some problems. For example, the enterprises do not invest actively because of their own economic interests; the full-time teachers lack working experience; the production, teaching and research are separated; and the enterprise teachers are not enthusiastic because of the constraints of the school mechanism.

At the Fourth International Conference on Innovation of Modern Apprenticeship in May 2011, Wang Jiping, the director of the Ministry of Education proposed that "the importance of establishing modern apprenticeship should be emphasized based on China's reality". In 2014, the Ministry of Education issued the opinions of the Ministry of education on carrying out the pilot work of modern apprenticeship (JZC [2014] No. 9), and in 2015, it successively issued the notice on carrying out the pilot work of modern apprenticeship. In June 2019, the general office of the Ministry of Education issued the notice on comprehensively promoting the modern apprenticeship (JZT [2019], No. 12). The modern apprenticeship has been repeatedly mentioned. Can the modern apprenticeship provide us with methods and ideas in breaking through the bottleneck of the cultivation of innovative and entrepreneurial talents in art design?

Modern apprenticeship is based on inheriting the traditional apprenticeship, which takes teaching by words and deeds as the main skills, and integrates the theory and method of modern vocational education. Its essence is the combination of work and learning, enterprise training and school education, and strives to solve the problems of the separation of vocational education and occupation, theory and practice, and study and employment.

B. Analysis on the characteristics of modern apprenticeship in China and foreign countries

By using Chinese and English characters to study and search the databases, it is found that there are abundant researches on modern apprenticeship in foreign countries, such as German dual system, Swiss triple system, Australian apprenticeship and training system, etc. Systematic theoretical research and reform practice are carried out at the same time. The research results of modern apprenticeship in China are very limited in number. They are generally published in journals, and few monographs are published, especially no monographs on vocational education of apprenticeship have been published in recent decades.

Through the above analysis, it is found that the research on modern apprenticeship has the following characteristics:

The study of modern apprenticeship is mostly from a macro perspective. This paper studies the meaning, method and category of modern apprenticeship from different countries, different types and levels.

The research content of modern apprenticeship mainly focuses on theory, but little on practice. The study of modern apprenticeship is mostly based on the theory of school running mode and operation mechanism, but less on the teaching mode, management method, condition guarantee and evaluation system of modern apprenticeship from the operation level.

The authors of the core literature on modern apprenticeship are mostly from universities or research institutes, lacking in front-line teachers and enterprise technicians.

The study of modern apprenticeship lacks spontaneity and innovation. The growth of research enthusiasm has a strong correlation with national policies. Since 2011, when the state proposed modern apprenticeship and carried out pilot work, the number of researches on it has grown with the trend, instead of carrying out spontaneous and localized innovation of modern apprenticeship based on its own regional characteristics, school-based characteristics and industry characteristics.

The study of modern apprenticeship is becoming weaker, lacking of readjustment after practice.

From the research status of modern apprenticeship in China and foreign countries, the research materials available in China are very scarce, and both theoretical research and practical research dimensions need to be enriched. There are many kinds of research in foreign countries, with certain depth and breadth. However, the research stays at the macro level, and the reference of localization is still difficult.

C. Exploration and practice of modern apprenticeship

For the training mode of art design talents, it is necessary to carry out the exploration and research of introducing studio teaching, modular teaching, and project teaching into the classroom in the early stage. The practice results are very significant, the technical skills of students have been greatly

improved, and the quality of talent training has made a qualitative leap forward. However, it should also see that these models have not completely got rid of the traditional education model, and there are still many limitations, such as curriculum setting, schedule, examination evaluation and many other aspects still have a lot of room for reform.

Through the questionnaire survey and interview of vocational colleges with art majors, the author has collected the existing application of modern apprenticeship, and made an analysis. It is found that students majoring in art design of vocational colleges have weak basic knowledge, focus on self, pursue individuality, lack teamwork consciousness, have active thinking, are full of creativity, and lack application and transformation ability of intellectual property. At the same time, these students have outstanding professional characteristics and strong artistic complex, but lack market awareness. Also, they have strong independent ability, strong innovation ability, keen perception ability, rich imagination ability and unique creative thinking ability, focus on practice, but lack the overall project operation ability in entrepreneurship.

Through research, this paper analyzes the more effective teaching mode of innovation and entrepreneurship for students majoring in art design of higher vocational colleges against the background of apprenticeship system, which can effectively promote the development of school-enterprise integration, and significantly improve the reform of curriculum setting, teaching content update and teaching organization form.

III. THE PRACTICE AND APPLICATION OF MULTI-LAYER INTERACTIVE MODERN APPRENTICESHIP

A. Analysis on multi-layer interactive modern apprenticeship

According to the characteristics of students majoring in art design of higher vocational colleges, this mode has made some achievements through exploration, research and practice, forming a certain framework and mode — "multi-layer interactive modern apprenticeship". Viewing from the micro practice level, the multi-layer interactive mode uses the "multi-tutor alliance" to guide students in innovation and entrepreneurship in an all-round way. Among them, the academic tutor mainly enhances the students' ability to use basic knowledge and team coordination and cooperation; the enterprise tutor mainly cultivates the students' ability to apply and transform their intellectual property rights; and the entrepreneurial tutor mainly cultivates the students' overall project operation ability in entrepreneurship. ("Fig. 1")

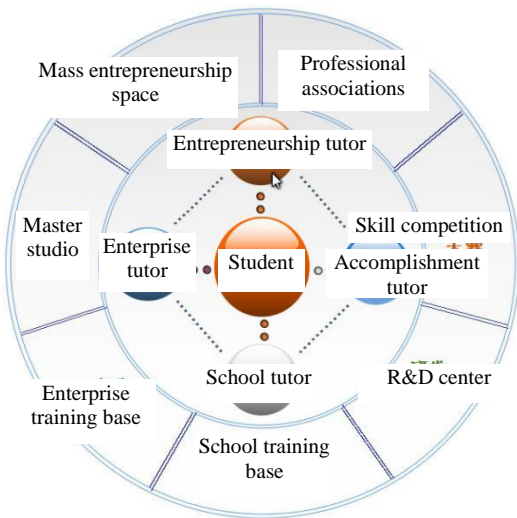


Fig. 1. Micro practical model of modern apprenticeship.

In the process of innovation and entrepreneurship guidance, the "multi-tutor alliance" provides practice stage for students with the help of platforms such as mass entrepreneurship space, R&D center, professional association, master studio, skill competition, enterprise training base, school training base, etc., so as to finally make students have solid professional skills, high-quality professional quality, full humanistic quality and noble moral quality.

B. Practical application of multi-tutor alliance

Among them, mass entrepreneurship space is an innovative incubator, "mass" is the main body, "entrepreneurship" is the content, and the "space" is the carrier. It is open to students, and provides free service and relatively low-cost growth environment for entrepreneurial students. It is an open public service platform with lower cost, more convenient operation and more comprehensive functions. This platform realizes the combination of online and offline, innovation and entrepreneurship, incubation and investment, and provides students with good practice space and resource sharing space.

R&D center is a research place for product design and production in related fields of art design, a place for product and project development and application research, and a place for process operation of innovation and entrepreneurship. Also, it has the functions of product promotion, technical service and personnel training. The center is equipped with full-time management personnel, and the R&D personnel are led by the teachers to carry out the project development. The process has organization, regulations, specifications and steps.

Professional association is a spontaneous group organization of students. It focuses on the professional knowledge and professional needs of related fields, relies on disciplines, takes professional activities as carriers, enhances professional knowledge and professional quality in activities, effectively combines the specialty with practice, and then

cultivates students' innovation. In addition, the colleges also provide professional teachers as the person in charge for each professional association. These professional teachers provide professional guidance for students, standardize the management of the association, provide training projects and resources for students, and build a good practice platform for students. Then, the old can bring up the new, and the culture of the association continue to pass on, greatly improving the initiative of students in the association, and promoting the growth and cultivation of members of the association.

The master studio hired the national inheritor of intangible cultural heritage to lead the students to inherit the intangible cultural heritage. First of all, it is to popularize the intangible cultural heritage of teachers and students in the college, so that teachers and students can understand the history of the intangible cultural heritage, feel the charm of the intangible cultural heritage, generate the willingness to learn, and enhance the motivation of learning. It is to hold the inheritance and training class of intangible cultural heritage, where the master will lead students to make intangible cultural heritage products, and develop the intangible cultural heritage with innovative methods in the process of learning and making.

The skill competition relies on and encourages students to participate in all kinds of competitions related to their major. From the beginning of college, professional teachers have planned to lead students to train in the competition and learn in the competition, and introduced the design competition at all levels into the practice of professional courses, widely using TRIZ (innovation) theory to guide teaching. The multi-level training mode of "thinking training, systematic learning and practical application" is integrated into the project teaching of the core courses of the major. The competition consciousness, team cooperation ability and practical ability of the students are cultivated by holding various forms of competition items such as "UCA design competition", "entrepreneurship competition", "interior design competition" and "graduation works competition" in class and school. Through organizing the participation in the competition to test and examine the professional skills and innovation ability of students, the purpose of promoting training by competition is achieved.

The enterprise training base and the campus training base embody the implementation of "internal and external workshops" in college, namely, integrating the real project of the enterprise into the studio teaching, establishing three forms of campus workshops: student entrepreneurship workshop, junior studio and professional studio; and jointly creating the off-campus training base with industry enterprises. According to the position needs, students set up a design team in an organized way. First of all, they train their professional quality, modeling basis and innovation and entrepreneurship in the student entrepreneurship workshop and training room, so as to provide students with a practical and interactive learning platform. With the gradual improvement of students' level, they can access to the studio for professional skills training step by step. Finally, the design team is composed of two-way selection of enterprises

and students, and access to the enterprise-level studio to realize the docking with the post ability.

The comprehensive application of these platforms is one of the methods to solve the matching between the supply and demand of art design education and modern cultural and creative industries in higher vocational colleges. It is to solve how to speed up the role transformation ability of art graduates in higher vocational colleges, improve their professional practice ability, enhance their professional adaptability, and enrich their humanistic quality, so as to finally become a talent training mode of social people with knowledge, skills, quality and temperament. It is an effective way to solve how to inherit traditional technology and how to make the combination of traditional technology and modern technology glow new vitality.

From the micro practice level of "modern apprenticeship", the use of tutor alliance — academic tutor mainly enhances the students' ability to use basic knowledge and team coordination and cooperation; enterprise tutor mainly cultivates the students' ability to apply and transform intellectual property rights; entrepreneurship tutor mainly cultivates the students' ability to operate the overall project in entrepreneurship.

IV. CONCLUSION

The innovation and practice of "multi-tutor alliance" has improved the quality of talent cultivation. It has submitted a satisfactory answer for the following problems, such as, the problem of the contradiction between the supply and demand structure of art professionals in the labor market with the transformation of the social and economic structure and the adjustment of the industrial structure, the problem of matching the supply and demand of art design of higher vocational education and modern cultural and creative industries, the problem of speeding up the role transformation ability of vocational art graduates, improving their professional practice ability, enhancing their professional adaptability, and enriching their humanistic qualities, the problem of inheriting the traditional craft and making the traditional craft and modern technology combined with new vitality. It is inevitable that the development of creative industry will contribute to the demand for talents.

REFERENCES

- [1] Xia Xiaowen. Exploring the Cost of Modern British Apprenticeship Training [J]. Vocational & Technical Education Forum, 2004. (in Chinese)
- [2] Xiong Ping. Modern Apprenticeship [D]. Master's Thesis of East China Normal University, 2004. (in Chinese)
- [3] Guan Jing. Research on the Western Apprenticeship System and Its Reference to Vocational Education in China [D]. Shanghai: Master's Thesis of East China Normal University, 2010. (in Chinese)
- [4] Brett Freeland. Occupational trends and new apprentice training [R]. SA, NVCER, 2000.
- [5] Zhu Mincheng. On the modern apprenticeship model [J]. China Vocational and Technical Education, 2001. (in Chinese)
- [6] Rui Xiaolan. A Comparative Study of Traditional Apprenticeship and Modern Apprenticeship [J]. Consume Guide, 2008. (in Chinese)
- [7] Wang Jiawei. Creation and Transcendence: Analysis of Modern Apprenticeship [J]. Jiangsu Education, 2012. (in Chinese)
- [8] Cui Tiegang. Analysis on the Evolution of New China's Apprenticeship [J]. Vocational & Technical Education Forum, 2012. (in Chinese)
- [9] Lu Wanyu. Research on the Training Mode of Modern Apprenticeship Talents in Higher Vocational Education [J]. Dalian University, 2011. (in Chinese)
- [10] Wen Hengfu. Research-experiential Creative Teaching Method [M]. Harbin: Heilongjiang People's Publishing House, 2003. (in Chinese)