

Research on the Training Mode of Indoor Design Majors Based on the Integration of Industry and Education

Yuejun Zhao, Jiangsu Second Normal University, China
Jiayang Ma, Nanjing Forestry University, China

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Abstract

In China, the integration of industry and education refers to the close integration, mutual support, and mutual promotion of industrial practice and school education emphasized by schools in accordance with the needs of their students. It is a significant initiative to adapt applied majors to social and economic development, realize high-quality teaching, and enhance the comprehensive strength of students. Given the needs of the interior design profession, the following four aspects were analyzed and elaborated: the optimization of the progressive school-enterprise cooperation design talent cultivation mode and the "subject system" professional course structure; the dual-mentor system of school-enterprise cooperation and dual-teacher training in parallel with the construction of teaching teams; the construction of an interactive digital professional teaching platform and shared resource library; and the construction of a whole-process professional ability and vocational quality assessment and evaluation system with participation by mentors from schools and enterprises. This study attempted to develop an effective study path for indoor design majors to deeply implement the integration of industry and education and efficiently change the talent cultivation mode, and to help indoor design majors to improve the quality of talent cultivation in the practice of integrating industry and education.

Keywords: Industry-Education Integration, Interior Design, Training Mode

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Introduction

With the rapid development of contemporary society, China's educational philosophy, training mode, development goals and teaching methods for college and university talents are more and more demanding, so it becomes imperative for colleges and universities to promote the reform of education and teaching mode. As an application-oriented specialty with strong comprehensive and practical ability, "Interior Design" focuses on cultivating high-quality and high-quality innovative talents with rich professional knowledge, solid practical ability, and the ability to independently cope with multidisciplinary cross-disciplinary problems. The Outline of the National Medium and Long-term Educational Reform and Development Plan (2010-2020) emphasizes that the education of students should "insist on the emphasis on ability, optimize the knowledge structure, enrich the social practice, and strengthen the cultivation of ability." Therefore, for the teaching reform of "interior design", it is necessary to break the existing teaching mode stereotypes, single teaching method and a series of problems, continuous exploration of the relationship between theory and practice, to ensure the sustainable development of interior design education and teaching, attach great importance to the practical aspects of the teaching process, to improve students' practical and innovative ability, to cultivate students with creative thinking, and to improve students' ability to practice and innovation. In the process of teaching, the practice link is highly emphasized to improve students' practical and innovative ability, and to cultivate applied talents with creative thinking and able to adapt to the work of the real society.

"Talent cultivation mode" refers to the sum of the process of implementing talent education under the guidance of certain modern educational theories and ideas, and in accordance with specific cultivation objectives and talent specifications, with relatively stable teaching content and curriculum system, management system and assessment methods. The traditional university professional training mode generally refers to the universities under the guidance of the relevant education departments, according to their own characteristics, in order to achieve certain training objectives and specifications, the teaching concept, teaching content, teaching methods, teaching methods and teaching resources and other aspects of the organic combination of the development, in general, are based on the main body of school education to complete.

With the rapid development of contemporary society, China's education concept for college and university talents, training mode, development goals and teaching methods require more and more high, so colleges and universities to promote education and teaching mode reform becomes imperative. As an application-oriented specialty with strong comprehensive and practical ability, "Interior Design" focuses on cultivating high-quality and high-quality innovative talents with rich professional knowledge, solid practical ability, and the ability to independently cope with multidisciplinary cross-disciplinary problems. The Outline of the National Medium and Long-term Educational Reform and Development Plan (2010-2020) emphasizes that the education of students should "insist on the emphasis on competence, optimize the knowledge structure, enrich the social practice, and strengthen the cultivation of competence". Therefore, for the teaching reform of "interior design," it is necessary to break the existing teaching mode stereotypes, single teaching method and a series of problems, continuous exploration of the relationship between theory and practice, to ensure the sustainable development of interior design education and teaching, attach great importance to the practical aspects of the teaching process, to improve the practice and innovation ability of students, to cultivate students with creative thinking, to improve their ability to practice, to enhance their ability to learn, to develop their ability to think creatively, to develop their

ability to learn. In the process of teaching, the practice link is highly emphasized to improve students' practical and innovative ability, and to cultivate applied talents with creative thinking and able to adapt to the work of the real society.

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Modern society, the scientific and technological revolution is more rapid, the development of globalization is more obvious, and the flow of information is more rapid. Interior design as a typical practice-oriented professional, the traditional personnel training model can not adapt to the development of society, the requirements for personnel training no longer only stay in the design of theoretical knowledge, mastery of design skills and techniques of the basic stage, should also pay attention to the innovation and practice ability, teamwork ability, lifelong learning ability and vocational literacy training. How to build in line with the modern development requirements of the interior design personnel training model, this paper to the perspective of the development of industry-teaching integration, from the following four aspects of specific description.

Progressive School-Enterprise Cooperation Design Teaching Mode and Optimization of the Professional Curriculum Structure of “Subject System”

The rapid development of the society promotes the increasing demand for professional talents in all walks of life, and the requirements are getting higher and higher. Therefore, it is of great significance to accelerate the training of professional talents combining theory and practice for economic and social development. Since the domestic colleges and universities in the interior design professional teaching process is more focused on design theory and basic skills and techniques of training, coupled with the teacher structure and teaching resources and other reasons, practice teaching is in the initial exploration and development stage. The interior design industry has a large number of professional designers with outstanding practical ability and a rich variety of practical project resources, which is exactly what is lacking in the design teaching in colleges and universities. The teaching mode of school-enterprise cooperation refers to the use of schools and industry enterprises to collaborate on teaching activities, the purpose is to support the teaching process with the help of enterprises, resource sharing, complementary advantages, and jointly complete the training of professional talents in line with the requirements of the development of the times. Therefore, the teaching mode of school-enterprise cooperation plays a very important role in promoting the development of interior design teaching, and at the same time, the training mode of school-enterprise cooperation can also accurately cultivate the industry and enterprises in urgent need of professionals, which is more conducive to the development and progress of society.

Progressive school-enterprise cooperation design teaching mode can be divided into three stages, the first stage, in the school's daily teaching, the enterprise to send specialists to participate in the teaching, the teacher can be part of the curriculum content, especially the design of the practical aspects of the content of the teaching moved to the project site of the cooperative enterprise teaching, combined with the practice of the case and the site situation, by the practice of the enterprise instructor and the teachers to complete the teaching content, so that students in the project can prove their theoretical knowledge and test their professional skills in the project environment. In the second stage, the school and the enterprise build a training base together, simulating the working environment of interior design, so that the students can experience the professional design environment and working process in their study. The school makes use of the technical guidance of enterprises to make up for the deficiencies in practical teaching and improve the construction of teaching system. Enterprises utilize the school's student source, site and practical training equipment to realize order-type training and establish talent reserves. At the same time, students can experience the future working environment in school, learn more professional practical experience, and gradually strengthen their professional awareness and improve their professionalism. The third phase of the student all-day nature of the internship status into the enterprise for practical learning, the purpose is to learn in the students to learn professional practice knowledge at the same time, but also be able to learn to use. After the completion of the internship period, students can sign a formal labor contract with the enterprise in accordance with the principle of two-way choice, and become a full-fledged employee. Enterprises can also obtain more human resources through this model, reducing the cost of enterprise talent training.

Traditional design teaching courses are independent individuals, most teachers only stand on the narrow perspective of a single course to complete the teaching task, not too much attention to the linkage between the courses, not enough articulation between the courses, the lack of knowledge before and after the guidance. The teaching of interior design courses covers both theoretical teaching and practical application, but due to the teaching conditions, teaching environment, syllabus requirements and teacher background and other constraints, most of the practical teaching in the teaching process lacks effective real cases, and generally choose the "virtual subject" to complete, and the students are not familiar with the objective conditions such as spatial scale, architectural form, design needs, environmental composition and so on. Students have no intuitive feeling about the objective conditions such as spatial scale, architectural form, design demand, environmental composition, etc., and they rely on their feelings and imagination in the process of assignments, which lacks objective basis, thus leading to the lack of professionalism and design depth in the final assignments completed by students. Moreover, the assessment of the assignments is usually done by the teachers, and there is a lack of professional evaluation by the "third party" in this process.

The use of "project system" in interior design teaching is, first of all, an enhancement of the ability of teachers. Teachers should carry out the relevant practical courses of the proposition of the examination, research teaching process how to will be through the curriculum, how to guide the students to independent inquiry learning, enhance the interest in the professional learning process and concentration. Secondly, the implementation of the "project system" of real problems, how to choose the corresponding actual projects, set reasonable and effective design requirements and control of the practical learning process is also a major test of the practical skills of teachers. This prompts teachers to go out of the classroom and actively participate in the practical design projects, so that they can better combine theory and practice in teaching and promote the improvement of teachers' professional skills. In addition, the

teaching of "project-based" courses can effectively guide students to strengthen independent learning and stimulate their ability to explore new problems, think about new problems and take the initiative to solve problems. It is also conducive to students' systematic mastery of the design process, cultivation of practical application skills, and enhancement of the sense of teamwork. The development of the "project system" can effectively improve the communication and cooperation between students, students and teachers, teachers and teachers, promote the improvement of teachers' and students' ability to communicate with the outside world, build a bridge between the school and society, and lay a solid foundation for students' internships, graduation and even going to the workplace.

Teaching Team Building Through School-Enterprise Cooperation of “Dual-Mentorship” and “Dual-Teacher” Teacher Training in Parallel

Teachers - nowadays refers to the talents who can be teachers, from "Laozi", is the most important part of education. It is the most important part of education. It is an inevitable trend for the development of education and teaching in China to continuously strengthen the training of teachers, optimize the structure of the teaching team, and improve the competence level of teachers. With the development of society and the passage of time, the relative cross-sectionality, comprehensiveness and practicability of the interior design profession are increasing, and the trend of linkage and combination with multidisciplinary and fringe disciplines is also becoming more and more obvious. In order to truly combine theory and practice, guide students to correctly understand and master professional knowledge and skills, so for the interior design teaching faculty restructuring, teachers' professional ability to improve and teaching team building has become an important initiative of professional teaching reform.

Since 2009, China has fully implemented the "dual tutor system", which is an effective way to cultivate high-level, high-quality, practical and strong applied talents in line with the requirements of social development, and is a positive exploration of innovative talent cultivation and reform of the path of colleges and universities. "Dual tutor system" is based on teacher education in higher education institutions, supplemented by practical guidance from enterprise tutors. School tutors teach basic theoretical knowledge in a collective way according to the syllabus and lesson plan, while enterprise tutors guide students according to their job duties, determine the guidance mode according to the characteristics of the students and the practical needs, formulate the guidance plan and implement it, and carry out the skills and techniques in a practical way. The enterprise tutors will instruct the students according to their job duties, determine the way of instruction according to the students' characteristics and practical needs, formulate the instruction plan and implement it, and teach the skills and techniques by practicing. At the same time, school tutors should study in depth in the enterprises, and enterprise tutors should study in depth in the schools, so that both sides can help each other and collaborate to educate people, fully mobilize the enthusiasm and creativity of the tutors inside and outside the school, and undertake the task of cultivating talents together.

The implementation of "dual tutor system" can effectively combine the relevant basic courses in school, project-oriented comprehensive practical course training, enterprise professional knowledge lectures, project site observation and internship, etc., so that the students, on the basis of sufficient accumulation of theoretical knowledge and systematic vocational cognition, can apply what they have learned to the practice of the enterprise and solve the various problems encountered in practice. On the basis of sufficient accumulation of

theoretical knowledge and systematic professional cognition, students can apply the knowledge they have learned to enterprise practice, solve various problems encountered in practice, and then deepen their understanding of theoretical knowledge through their own practical experience, thus enhancing their practical innovation ability and improving their personal professionalism. On the other hand, the experimental training resources can be integrated to realize the sharing of resources between schools and enterprises. Promote the construction of dual-teacher teaching team in colleges and universities, and then enhance the level of teaching and research and business ability of school teachers. At the same time let the enterprise deeply involved in the training process of the future employer, can give priority to select and raise a number of high-quality talents belonging to the enterprise's own reserve army, greatly reducing the cost of enterprise talent training, improve the quality of the talent.

For interior design professional construction, in promoting school-enterprise cooperation "dual tutor system" at the same time, should actively build the university's own "dual teacher" teacher teaching team. In recent years, the Ministry of Education at the national level issued a series of relevant documents on the promotion of vocational education, the introduction of these documents for the construction of the "dual-teacher" teacher teaching team to create a favorable external environment and provide institutional safeguards. "Dual-teacher" teachers should not only have excellent teaching ability and quality, but also have the professional skills required by industry standards and professional positions, including theoretical knowledge, industry skills and core qualities, including the embodiment of the comprehensive ability of the profession. Therefore, the interior design profession should be combined with its own characteristics of the targeted construction of "dual-teacher" teacher training system, to create a full professional lifeline of teaching, practice two-way cultivation channels, and strive to achieve the effective integration of the theoretical quality of teachers and practical teaching ability, to achieve the high quality of the development of teacher teaching team. Firstly, the cultivation of "dual-teacher" teachers should be systematically planned from the practical operation level, including obtaining vocational qualification certificates, on-the-job training, and participating in or guiding professional skills competitions. Secondly, we should innovate the training method of "dual-teacher" teachers, expand the mode and platform of teacher training, and provide teachers with special practical content and technology training. The third is to strengthen the cooperation between schools and enterprises, establish stable and high-quality internship bases inside and outside the school, and provide a good environment and conditions for the practice and teaching of teachers in the school. The construction of high-quality "dual-teacher" teacher team is an important guarantee to enhance the ability of interior design professional industry-teaching integration of educators, so in the cultivation of "dual-teacher" teachers at the same time, we should pay more attention to the construction and development of professional teaching team.

Construction of Digital Professional Teaching Interactive Platform and Shared Resource Library

Interior design is a multidisciplinary intermingling, comprehensive and independent disciplines, in professional teaching focus on theoretical knowledge and practical skills in parallel. Modern interior design teaching is no longer only satisfied with the teacher's classroom lectures, students passively accept the knowledge transfer mode, should build "student-centered" active learning classroom. Conventional teaching is confined to the classroom, which also greatly limits the long-term accompanying teaching by experts and enterprise mentors outside the school. Therefore, promoting the construction of proprietary

digital teaching interactive platform and shared resource library is an important support for the development of interior design professional teaching.

Create a Visualized Digital Space for the Whole Chain of Design Teaching With Collaborative Development of Teachers and Students

Mapping the physical classroom space of the offline traditional classroom to the online virtual digital space, by extending the classroom to the online virtual digital space, the whole chain of teaching before, during and after the process of uplinking and visualization is realized, no longer subject to the constraints of space, time, and teaching equipment, and the teachers and students teach, learn, communicate and share resources in the digital environment. The introduction of digital space to realize the teaching interaction between teachers and students, students can not only learn through the blackboard, projection and other conventional forms of teaching, but also at any time with their own cell phones, tablets or computers to enter the digital space for active learning and classroom interaction, such as uploading documents to express their own point of view, follow the teacher's point of view to view the information of the courseware, for the courseware of the specific location or the video of the specific time to ask questions to annotate the collaborative discussion of the group and completing topic training, etc.

Optimize the design of the teaching mode, combining online and offline learning, individual learning and team learning, breaking the limitations of time and space, and optimizing from knowledge linear transmission to interactive learning mode. Enhance students' subjective initiative in learning, emphasize students as the main body and main participant in the learning process, and let teachers become the organizer of the learning process. Teachers constantly update the teaching content and courseware to improve the practicality of course teaching, enhance students' concentration, and attract students' interest in independent learning before and after class. Increase the interaction between teachers and students and students and students, break the indoctrination teaching method, enhance the learning mode combining group lectures + team seminars and Q&A, and emphasize the two-way interactive teaching of teachers and students based on students' discussion. With the advantage of the digital space platform, improve the frequency and depth of the participation of off-campus experts and enterprise tutors in course teaching, on-campus and off-campus tutors and experts online at any time to connect access, on-site teaching, after class to answer questions no longer subject to the restrictions of time and place, at any time to communicate and interact with the on-campus teachers of the course of study to achieve the "all-time", "long tracking", "long tracking", "long tracking", "long tracking", "long tracking", "long tracking", "long tracking", "long tracking", and "full time". The program is a collaborative effort of "full-time" and "long-tracking".

Building a High-Quality Teaching and Sharing Resource Base for the “Future Learning Center” Model

According to the spirit of promoting the pilot of "Future Learning Center" in the 2023 Work Points of the Department of Higher Education of the Ministry of Education, we will explore the construction of a new intelligent learning environment, build a new high-level platform to meet the needs of precise learning, and provide efficient services for students to learn in the future.

The digital space teacher-student collaboration platform can precipitate teaching experience and data in the teaching process, integrate lesson plans, courseware, exercises, cases, etc. in the database, realize long-term storage of teaching materials, and orderly transmission of inheritance among teachers. Meanwhile, the function of complete data collection and presentation of digital space provides data support for course evaluation and accurate teaching.

In addition, the common construction and sharing of digital teaching resources can break the multiple barriers of different skills, professions, disciplines and industries, and build a "professional-college-intra-school-inter-school-school-enterprise". Diversified construction and sharing of the implementation of the route, so that students can conveniently obtain knowledge and skills from different disciplines, highlighting the cultivation of cross-border thinking ability, comprehensive technical skills, focusing on the use of school and enterprise resources to train students' professionalism and skills and techniques, and comprehensively improve the students' professional design ability and innovative thinking ability.

Enrich the Dimensions of Performance Evaluation and Build Data-Supported Teaching Process Evaluation

Under the traditional teaching mode, students can only be graded by the final examination results and classroom performance after the course. The use of digital space can leave traces of the whole process of pre-study, questioning, group interaction, after-class review, etc., with automatic data statistics and centralized visual display, which facilitates accurate evaluation of students, realizes objective data + subjective assessment, and combines the university and enterprises to jointly formulate the professional evaluation standards, so as to realize the two sides to jointly carry out comprehensive assessment and evaluation of the process of professional talent cultivation and quality, and to establish a multi-dimensional evaluation system of talent cultivation.

Construction of an Assessment and Evaluation System for Whole-Process Professional Skills and Professionalism

Professional ability refers to the ability that must be possessed in order to be competent in a specific occupation, which contains professional skills. It includes professional skills, vocational literacy and career management ability, etc. The evaluation of professional literacy plays an important role of guidance and quality supervision for the implementation of professional literacy education. The Third Plenary Session of the 18th CPC Central Committee proposed to "comprehensively implement the Party's education policy, adhere to the principle of establishing moral character, enhance students' sense of social responsibility, spirit of innovation, and practical ability, and improve students' aesthetic and humanistic qualities. It is necessary to accelerate the construction of modern vocational education system, deepen the integration of industry and education, school-enterprise cooperation, and cultivate high-quality laborers and skilled personnel". Based on the national policy guidance and the basic needs of the society, it is very necessary to establish a complete and implementable assessment and evaluation system of professional skills and vocational literacy on the basis of the traditional assessment methods, combined with the evaluation standards of the schools, enterprises and the society for the teaching of interior design profession with strong practicability. The professional skills and vocational literacy assessment and evaluation system can be accomplished from two aspects: assessment objectives and evaluation methods.

The Assessment Objectives Are Specifically Constructed From Four Aspects: Ideological Literacy, Psychological Literacy, Professional Literacy and Behavioral Literacy

The first is the assessment of students' ideological literacy, including the individual's position, attitude and viewpoint on the principle issues, whether they can do to adhere to the truth, see the slightest knowledge, grasp the trend and so on, as well as the sense of social responsibility, values, and the responsibility of self-behavior and other aspects. Next is the assessment of students' psychological quality: including the degree of interest in professional learning, the vision of the future career and the degree of adaptation to the learning and time environment. Then, students are assessed on their professionalism, including vocational skills, creativity and professionalism. Finally, it is the assessment of students' behavioral literacy including expression ability, teamwork ability and lifelong learning ability.

Establish a Professional Quality Evaluation System That Combines Quantitative and Qualitative Evaluation, Static and Dynamic Evaluation, Result Evaluation and Process Evaluation, and Combines Schools and Enterprises

In order to ensure the teaching effect of interior design, in the course assessment and evaluation, change the single final grading method of teachers in the past, and instead divide the students' course results into two parts: process evaluation and summative evaluation, and take a certain proportion as the final grade. Process evaluation is mainly to evaluate students' learning status in the practical part, including learning attitude, participation in the practical process, and records of practical sessions. And the summative evaluation is mainly to evaluate the completion status of students' learning tasks, that is, to evaluate the quality of the completion of the submitted practical results, the rational use of the work and its value of use and so on. It can be said that the grades of process evaluation are mainly based on the students' learning status; while the summative evaluation is required to be given through the horizontal assessment and the feedback information of the work display. At the same time, in order to make the assessment more fair and reasonable, in the specific course assessment, an assessment group can be set up by other teachers serving in the same specialized course, enterprise experts and so on, to jointly assess the students. And the content of the assessment should focus on the standards and requirements of enterprises, and evaluate the students' design innovation, rationality and ability to solve complex problems comprehensively. In the evaluation method, it can take the combination of students' report, works exhibition, teachers' and enterprises' experts' questioning, students' defense, and teachers' and enterprises' experts' joint review and comment, so as to ensure that the quality of the course teaching is presented comprehensively.

Conclusion

The integration of industry and education emphasizes the close combination of industrial practice and school education, mutual support and mutual promotion, and is an important initiative for applied majors to adapt to social and economic development, realize high-quality teaching and enhance the comprehensive strength of talents. The in-depth implementation of industry-teaching integration and efficient change of talent cultivation mode will surely help the interior design profession to develop steadily, long-lastingly, orderly and innovatively in the new era.

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Contact email: tms0306@163.com