Exploring the Teaching Path of "Project Teaching Method" in College Design Majors

Yan Liu 1, a,*, Haichao Zhang 1, b

¹School of Design and Art, Dalian Institute of Technology, Dalian, China

Keywords: Design education, Project teaching, Innovation integration

Abstract: The construction of the foundation and platform of design courses in colleges and universities needs to persist in exploring a path of innovative development. Cultivating innovative and applied talents for society needs to find an education model that is suitable for current talents in college education. Based on the current education status of design majors, this article analyses and redesigns the teaching links around the theoretical system of project teaching methods, and creates a good industry-university-research development path. Design integration from the education system, curriculum settings, and effect evaluation is better to improve the training mode for design professionals in colleges and universities, thus gradually improving students' design abilities and overall ideological quality, and cultivating innovative design talents that meet the needs of contemporary society.

1. Introduction

Design majors have become more and more popular in recent years. China's gradual entry into the process of social integration is inseparable from the large number of artistic talents entering the society, and the industry's comprehensive design capabilities and quality requirements for professional talents have gradually increased. Therefore, how to adjust the design education model in various universities, how to cultivate students' ability to innovate and start business, and how the performance of design works respond to the changing trend of the current market are particularly important [1-2]. College design majors should explore a teaching line that is in line with the current educational development trend, and update the education and teaching model, which has certain progress significance for the development of design majors in China.

2. Current Status of Teaching Models for Design Majors in Universities

2.1 Inadequate Attention to Basic Professional Courses for College Design Students

The starting point of the teaching of professional basic courses for design students should be to give full play to students' subjective initiative, and take subjective initiative as the basic principle of teaching design courses. The knowledge reserves of design students before enrollment are selected based on China's national conditions. During the teaching process, it was found that some students did not have a strong learning interest in the chosen major, but in order to select relatively Art majors can meet the needs of further studies. The learning content of cultural courses for such students is relatively inadequate, and the lack of solid professional knowledge will directly affect the understanding and performance of subsequent professional course knowledge, which will indirectly cause a certain gap with other students, which will have an impact on students' learning interest and subjective initiative [3]. Performance has been reduced. How to effectively improve the level of knowledge understanding of different students in the teaching process is an important research link that colleges and universities should carry out around their professional education. Attention should be paid to the lack of overall professional ability of students in the teaching process. Teachers should pay more attention to the students' knowledge and experience, and take new knowledge as the update and growth point of students. Facing the update and transformation of knowledge correctly, guide students to gradually adjust their own information reception. Cultivate

DOI: 10.25236/isaete.2020.016

students' ability to solve problems on their own, encourage them to learn new knowledge and learning tasks beyond their own abilities, build learning goals that meet their own progress, and gradually complete the four knowledge promotion stages of contacting information, exploring unknowns, integrating ideas, and solving problems.

2.2 The tradition of Education and Teaching Methods Leads to Thinking Limitations of Design Students

At present, universities in China have gradually increased the number of design courses. The design courses of various universities attach great importance to the setting of professional courses and neglect the study of basic courses. In addition, the lack of students 'knowledge reserves leads to a gap in students' overall professional performance. Disparity. The design of professional courses is too conservative, limiting the scope of students 'thinking to the absorption of knowledge in the course [4-5]. The gradual contempt of basic course education will directly affect students' enthusiasm for course content. Therefore, the design content and thinking of design students in general universities are relatively restrained. It will also indirectly affect the improvement of teaching efficiency. The design course is a discipline that requires the development of a comprehensive ability to develop a field of vision. It is too traditional for teaching and can only maintain part of the current student's homework thinking. However, there are very few design topics that are actually implemented in practice. It has great constraints on the development of the discipline of design.

2.3 The Establishment Mechanism of Professional Teachers is not Perfect

Because the design education in various universities in China, the difference between the training of design education talents and the social needs, has led to the slow development of our design education. The state requires that the ratio of teacher-students for low-school education in design majors is 1:18. In terms of quantity and quality, China is in a state of lack of teachers in modern design education. Looking at China's modern design education from the historical background, its development cannot be separated from the high-speed operation of society's economy. Therefore, the pursuit of economic benefits has prompted some universities to quickly open design majors. Insufficient teacher ratio will affect the quality of teaching. At the same time, many colleges and universities lack the conditions to run blindly and follow the lead, leading to poor results. In addition to the knowledge structure of design majors, there must be sufficient teachers. Equipped with independent laboratories, such as laboratories and computer rooms. The level of teaching quality is also related to the scope of teachers' knowledge horizons. Many design disciplines have more knowledge in the design of the disciplines. They have a stronger experimental application type and have higher requirements for teachers. Therefore, the introduction of teachers and talents in universities is a long way to go.

3. "Project Teaching Method" Extends the New Path of Design Education Mode

3.1 Introduce Classroom Design Topics for Enterprise Projects

In order to improve the cooperation efficiency of industry-university-research cooperation, the main role of the enterprise can be brought into play in the design of professional topics, and the research knowledge can be used in real projects to achieve a two-way win-win development path for enterprises and students. The introduction of the enterprise project into the classroom is a docking project that is based on the discussion between the enterprise and the teacher. The enterprise provides the learning tasks, the teacher is responsible for the guidance, or the company assigns a person to carry out the dual guidance teaching. Learning in projects is also a project-driven model in teaching. Because different schools have different directions and goals for talent training, the expansion of enterprise projects and the effectiveness of practice in school classes need to be coordinated in both directions. How to transform research results into practical

products that can be put into production is the key to school-enterprise cooperation. The highest priority. This link focuses on the training of students 'comprehensive design ability and the shaping of innovation ability. At the same time, it requires the teachers' comprehensive quality ability to be high, not only the teaching management ability but also the practical experience of script design. The project classroom practical training has the effect of improving the design ability. Introducing classroom links to the project can increase students' emphasis on the profession. Making teaching activities is a theoretical and practical two-way teaching method. It is also a process of practical investigation for teachers. Teachers' guidance and teamwork learning of students will effectively improve learning efficiency. Enterprises can also arrange corresponding docking personnel to provide two-way guidance on project details. The matching guidance of teachers and corporate mentors can guide innovative design thinking and open requirements to complete good docking and gradually complete higher-order thinking tasks.

3.2 Regional Cases Introduce Classroom Teaching

At present, the design disciplines of various universities will introduce knowledge into the classroom through case methods, and regionalized cases are project cases that are close to their own lives, and can better guide students into the specific environment of learning. Close-to-life case study is an active learning strategy that can expand design thinking and knowledge acceptance in real situations. Real case discussions can stimulate learner motivation and participation in the classroom. The analysis and collation of real data can clearly and clearly divide the conclusions of the analysis, reflect on relevant experiences, and reintegrate knowledge accumulation. The team's high level of participation and collaborative communication skills will be redesigned around regional cases. Guided by knowledge renewal and regional case analysis as guidance, the advantages of teaching are brought into full play.

3.3 Professional Design Competition Introduces Classroom Teaching

The design major is a comprehensive interdisciplinary discipline with outstanding practicality based on the fields of art, society, humanities, science, and economics. Designers require the necessary "all-rounder" knowledge framework. Due to the different design types, they need to understand various aspects of the professional field. The teaching effect of the combination of production and education can rely on the assistance of competition projects, but it is clear that the main goal of constructing a design knowledge structure is to understand the current development of design and analyze market demand. Therefore, the situation of knowledge reserve determines whether it is possible to directly enter design work in the future graduation stage. How can the design students at school shorten the distance between their abilities and actual work practice? They need to participate in more projects and practical training. The participation of the competition's theme content in classroom teaching can increase the practical teaching that is urgently needed in the classroom [6]. The gap between school education and social education can only motivate students to gradually mature in the field of professional practice. Let students understand the real meaning and value of participating in design competitions in class. There are many types of design competitions and various levels. Students and teachers need to invest more energy to expand their thinking. Students will participate in surveys with interests and points of interest; they will closely link students with teachers and project partners.; Promote students to achieve a passionate learning attitude. Under the guidance of the competition, the course evaluation should not only focus on the results of the competition, but also have a process evaluation. The course evaluation can be carried out from a series of communication activities such as everyone's interaction, phased reporting, and work discussion process. Let everyone attach importance to the results in the overall design of the course, as well as the design process.

3.4 Innovative Integration of Interdisciplinary and Practical Teaching

In the project-driven teaching process, design colleges should run through virtual project

teaching, expand students' imagination space, integrate interdisciplinary, and better integrate interdisciplinary interoperability. Teachers rely on the teaching guidance model of actual projects to improve students' actual combat of virtual projects. The design discipline is related to engineering, music, etc., and it is possible to cross-learn virtual projects and actual projects. The design discipline is a learning process that progresses from abstract to concrete, from shallow to deep. The design process needs repeated consideration and modification. To ensure the good communication of the design team, the virtual design direction must be visually far-sighted. Modification and design correction at any time are the definite stages of the design direction. The driving teaching method should be commended and rewarded according to the design results of different teams. The mutual help and assistance between the teams also helps the project proceed in an orderly manner. The combined design of virtual projects requires the full commitment of teachers, and the roles of teachers and students are gradually changing. Teachers transform the process of knowledge transfer into learning promotion guides, give students a high degree of encouragement, guarantee the enthusiasm of student teams, and drive the entire team with interest Motivation contributes to efficient design development. Students are also in the process of transforming passive learning into autonomous learning in active and false projects, actively creating new knowledge.

3.5 Practical Development Teaching of Training Workshop Projects

In the teaching link of the practical training workshop, the teacher transformed the theoretical knowledge transfer process into professional practical project training. While mastering the theoretical knowledge, students must have the ability to work in teams, coordinate research, and organize planning. The establishment of a training workshop relies on the planning and construction of a mentor to set up a professional training studio. The overall operation of the studio is derived from the operation mode of the enterprise, allowing students to experience the accumulation of social experience and working atmosphere in the school. The learning content of the studio is structured. The teamwork between students can promote an integrated learning environment of production, teaching, and research. Professional design studios and corporate cooperation studios will have relevant cooperation institutions and laboratories to conduct relevant studies. Design research and innovation research. The academic discussion and interdisciplinary interdisciplinarity between the various studios will help exchange and cooperation between designs. The design disciplines are broad and the content involved is relatively numerous. An excellent designer needs the accumulation of resources in multiple fields to understand production Information on design, design innovation, and design improvement. Making full use of resources for academic replenishment, teachers are also completing teaching practice links according to the work arrangements of the studio. To better enable students to learn concrete and perceptible design experiment content in practice.

4. Conclusion

"Project teaching method" applied to the teaching method of design disciplines can enable students to deeply understand the connotation of design, learn more knowledge system, and improve team collaboration ability, and get a good connection process between the various courses, effectively realize the internal transformation between courses and the progress of individual knowledge innovation. "Project teaching method" is a teaching mode of knowledge innovation. The teacher's role in teaching has also changed from a knowledge transmitter to a knowledge facilitator. The design mode that meets the needs of students is flexibly applied. The method of equality and reciprocity assists students to find a learning method that suits them. Under the guidance of the project, form good study habits, and get inspiration for design and ideas development. The participation of project teaching in the curriculum setting solves the problem of the efficiency of individual curriculum knowledge innovation. The updating of teaching methods can improve students' understanding of professional knowledge. The curriculum content is set around the theme of the competition. The teaching purpose-driven method guides students to conduct targeted research and design trends. The practical training studio will carry out physical project or training

simulation schemes to carry out design strategy research and development. The authenticity of the design theme or conceptual design will lead students to explore the future trends of design. The teaching methods of design colleges should gradually expand their thinking, explore more technologies and methods that can improve the knowledge and vision of design students, and cultivate more outstanding design talents who can innovate design.

References

- [1] Wang Jian. Discussion on Teaching Reform and Practice of Basic Courses of Art Design Specialty in Colleges and Universities in the New Era [J]. Educational Observation, no.4, pp.90-91.
- [2] Yi Weiguo, Zhang Xiong. Research on teaching methods of art design basic course [J]. Decoration, no.1, pp.24.
- [3] Hu Weifei. Discussion on the Teaching of Basic Courses in Art Design [J]. Journal of Huainan Teachers College, no.4, pp.12.
- [4] Zhang Likun, Pang Lianyi. School-enterprise cooperation in the vocational education system change [J]. Journal of Jiangsu Teachers College of Technology: Social Science Edition, no.12, pp.18-20.
- [5] Zeng Xingxing; Zhou Qingping; Cai Guomin, et al. Research on the teaching mode of the flipped software teaching course [J]. Research and Exploration in Laboratory, no.2, pp.203-209.
- [6] Guo Shaoqing. Connotation of task-driven teaching method [J] .China Educational Technology, no.7, pp.57-59.