

Research on Teaching Method of Public Building Design Principle Based on the Training Objective of Applied University

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Abstract: Based on the guiding ideology and training objectives of applied undergraduate education, based on the characteristics of architectural design theory and method curriculum, this paper analyzes the teaching status quo of architectural design theory and method course, and proposes to update teaching concept, perfection and reconstruction. Teaching reform measures keep pace with the times, such as the curriculum system, the implementation of the reform theory teaching method, and the reform of the assessment system.

1. Introduction

More than a hundred years ago, Britain's transition from a semi-feudal society to an industrial capitalist society brought tremendous impact to human society. At present, like the industrial revolution of a hundred years ago, the wave of the Internet revolution has gradually subverted the way people understand the world and transform the world. The invention of "Universal Machine Computer" shattered the declaration of "form following function". The virtual world broke through the boundary of three-dimensional space. The dissemination and learning of knowledge is more than just the Lang Lang book in the ivory tower. The flattening, fragmentation, and high concentration of information, high-speed flow has become the characteristics of the times. All of this has brought about tremendous changes in architectural practice and architectural education.

The architectural design course is a main course in the architecture teaching program, which accounts for about one-third of the entire teaching plan [1]. The course of public building design principle is the foundation of this series of theoretical systems. Its teaching content builds a platform of professional knowledge for future theoretical study and design practice. It is of great significance to improve the basic theory and practice level of students through the teaching reform of the course of public architectural design principles and to establish a correct architectural view.

The transition from elite to popular in China's higher education has enabled the rapid development of applied undergraduate education. Applied undergraduate education often emphasizes the mastery of practical skills and the improvement of practical ability to adapt to the development of contemporary society and solve the current situation of shortage of senior applied talents in the talent market. In the training plan of teaching, there is a lack of attention to the education of basic theory, professional basic knowledge and research ability, and it is often increased by reducing the class time of professional theory courses or the combination of theoretical basic courses. Therefore, reforms such as architectural design theory and methodologies are needed.

2. Reflections on the Teaching Status Quo of Public Building Design Principles

Since the reform and opening up, a variety of architectural trends from the West have flooded in, and various viewpoints have made people uneasy. The real estate boom that began in the 1990s led to distortions in the value of the design market. The Internet era has brought about information explosion, changes in the way knowledge is transmitted, creating unprecedented possibilities for people to acquire knowledge, and independent learning. However, the fragmentation of knowledge dissemination is very serious, and learning is not systematic and comprehensive.

The textbook on the principles of public building design was originally written in the 1960s and

was published in the 1970s by Mr. Zhang Wenzhong of Tianjin University. Although it has been adjusted and revised for nearly half a century. However, in today's endless stream of new ideas and new works, whether to increase knowledge points, update what knowledge, how to update, how to organize knowledge structure becomes a huge challenge [2].

The traditional education mode of architectural theory class is guided by teacher explanation. The teacher is the main body of teaching. The students are completely passively accepting the situation. They lack the active thinking of knowledge points, slowly lose their interest in learning, and learn behavior changes under the pressure of examination. It is a rote memorabilia for the purpose of passing the exam. This leads to the understanding of the knowledge point only on the surface of the text. In the practice of architectural design, I do not know where to start with the complicated design problems, and have no ability to judge value and control the problem. This kind of teaching mode ignores students' active learning ability of knowledge, dampens the enthusiasm of both the subject and the object, and is difficult to adapt to the requirements of the times.

The architecture curriculum system runs basically in accordance with the two main lines of "theory" and "practice". The course of public building design principle plays an important role in the architectural design theory. It is a course to open students' theoretical study, and it has guiding significance for the design practice course. Due to the reason of the teaching system, it is objectively caused by the disconnection between theory and practice. At the same time, because the lower grade students do not understand the entire teaching system, they also subjectively separate the connection between theory and practice.

Architecture is a combination of art and technology. Engaged in architectural design activities should have a higher level of cognition and practical ability in art and technology. Limited to China's education system, the freshmen of architecture majors generally have strong science qualities, seldom understand the architecture and its disciplines, the humanities are poor, and the experience of life and space art experience is poor. The use of wrong theory in design practice, the confusion of design thinking is everywhere.

The number of courses in the lower grades of architecture is extremely large. Many students study for the exams, and the purpose of learning is very unclear. Once the exam is over, the knowledge learned is "returned to the teacher" and cannot be applied to design practice. There are often cases of high theoretical scores and low practice. Therefore, in teaching, not only should we transfer theoretical knowledge, but more importantly, guide and encourage students to apply what they have learned in design practice [3].

3. The Importance of the Course of Architectural Design Theory and Methodology

The course of architectural design theory and method has also been influenced as a basic theory course to varying degrees. However, this course is a basic theory course for design in architecture. It is mainly to study the characteristics and design of different types of public buildings. Through the teaching of this course, students will further enhance the understanding of the design requirements of common public buildings and improve the understanding and analysis ability of students' public buildings on the basis of the preliminary knowledge of existing buildings. Therefore, we should clarify its importance and necessity in the teaching system and give it enough attention.

4. Exploration and Research on the Teaching Reform of Architectural Design Theory and Method

When carrying out architectural design, it is necessary to understand the particularity of architectural contradictions and to study the universality of architectural contradictions. The course of public design focuses on the analysis of common problems in design, allowing students to learn the basic principles, design methods and necessary combination skills of architectural design, so that beginners can lay a certain foundation and can achieve the comprehensive ability to enhance design and practice. From a macro perspective, establishing a correct architectural concept, establishing correct value judgment standards and professional accomplishment, and being able to

combine theory with practice are the goals of the curriculum innovation and reform.

The core of teachers to change and update their teaching philosophy is to continuously improve their professionalism. As the design of the city continues to update with the development of the city, teachers must constantly enrich and improve their knowledge framework, improve their architectural qualities, accept and master the latest things, and add these things to the actual teaching [4].

In the past classroom teaching, most of the teachers were teaching according to the pre-designed teaching process, and the students were basically passively accepted. Classroom teaching is a dynamic process of change. Teachers should design classroom teaching according to the current situation of students, instead of asking students to participate in pre-designed teaching. Therefore, it is necessary to design a flexible classroom teaching program. Because the classroom of "teaching by theory" has a lot of uncertainty compared to the classroom of "educational theory", teachers must improve their teaching ability, teachers' concept and professional quality. Even in the discussion session, if the students are discussing involuntarily, the teacher should actively watch and listen, truly feel what the students think, keep abreast of the various situations in the classroom, and consider how to guide the students in the next step. Due to the practicality of the architecture profession, students are always using it in their lives and have a good personal experience. Therefore, in the classroom of the theory, the proportion of case teaching should be increased, and students should be improved through the actual case of the completed building. The ability to analyze independently strengthens their understanding of architecture.

Architects trained by architecture should be urban designers who are flexible in thinking and dare to do it. The increase of interactive teaching will enhance the autonomy of students' learning, so that students no longer rely on teachers, find problems independently, find methods, solve problems. The teacher only gives guidance to help, such as reference books, what are the actual cases, and do not limit anyone's thinking and ideas. Theoretical teaching is often tedious and boring. In the classroom, students can increase the form of lectures and improve the participation of students. In this process, teachers can only summarize relevant knowledge points, and can also raise questions and ask students to think for themselves.

In the study of the theory class, most of the students were madly endorsing a few days before the final exam, and then took the test, just for the pass, this shorthand will soon be forgotten, for the subsequent professional design classes. Help, so we should break the rules of test paper assessment, change to more practical design tasks, or reduce the proportion of test scores in the total score, increase the proportion of practice-based instructional scores in the teaching process, and encourage students to develop practical Ability to effectively reduce high scores and low energy students, so that students will turn more attention to the course itself, not just the test scores [5].

According to the teaching objectives to be completed in the whole teaching system of the theoretical course, combined with the actual problems encountered in the teaching process, the knowledge points covered by the course are sorted out. The teaching content has been reconstructed from people's knowledge learning from shallow to deep, from simple to complex cognitive processes. In view of the wide range of knowledge of public building design principles, the content is complex, the knowledge points are relatively chaotic, the logical structure is not strong, and so on. The understanding of the building and the design method should be discussed macroscopically, and the architectural design principles should be microscopically elaborated. With the help of system theory in the teaching content, try to establish a systematic understanding of the building's integrity, multi-level, multi-directional. Through the analysis and elaboration of type learning methods, such as "space and space combination, structure type, equipment and facilities" and other issues, the combination of theory and practice is advocated, and the theoretical teaching is systematic, modular, and thematic, and the design practice class Combine correspondingly. In the teaching content, the students in the lower grades are limited in their curriculum, and their cognitive ability is limited. In principle, they do not blindly expand. However, for the extended knowledge and content of the textbooks, some bibliographies should be recommended in time, such as: "External Space Design" and "Architectural Space Combination Theory" "Architecture: Form, Space and Order", etc.,

requires students to read and summarize, improve students' interest in theoretical classes, and expand students' knowledge. At the same time, combined with the teaching content of the design practice course, analyze and study the architectural case in a targeted manner, and improve the students' transformation of the knowledge they have learned.

The introduction of modular teaching methods, based on three clues, to develop students' ability to learn architectural theory independently. 1 Re-recognizing architecture: Through research and analysis and classification of research buildings, helping students to observe cognitive buildings from a professional perspective; By teaching the necessary design principles, students can establish correct architectural design concepts and form value judgments. 3; Practice architectural design theory: Through design practice, promote understanding of design principles, application of design principles, practical design methods, and expansion of design capabilities.

For open issues, introduce discussion and interactive teaching models, and even presuppose questions, encourage students to think and discuss problems from multiple angles, in order to continuously inspire students to discover problems and solve problems, fully mobilize students' enthusiasm, and cultivate students' participation spirit. , thus leading to a deeper understanding of the problem. This kind of interaction between teachers and students can transform students from a passively accepted situation to an active exploration of problems, and it is also conducive to the understanding and transformation of the knowledge they have learned.

The modularization of public building design principles and the reform measures integrated with the design curriculum have greatly changed students' attitudes towards theoretical classes and improved students' interest in learning. Students change from "do not love to learn theory, do not design" to a combination of theory and practice. It is gratifying to note that after several years of teaching reform, preliminary results have been achieved. The recognition of teaching reform by teachers and students is the spiritual driving force for us to move forward. University architecture education not only shoulders the spread of knowledge, but also establishes students' architectural views and cultivates their independent architectural consciousness, which will nourish and support their future architectural career. The reform of architectural teaching is a gradual process. It is necessary to adapt to the new era with a developmental perspective and strive to expand the architectural education to a broader field.

5. Conclusion

In short, based on the guiding ideology of applied undergraduate courses, we constantly innovate and reform the curriculum of architectural design theory and method from various aspects, so as to ensure that students have rich practical ability under the premise of learning basic knowledge. More and better design results appear in the learning process, so that they can better integrate with the society and adapt to the needs of system development.

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