Teaching Design of Architectural Design Course under the Network Environment

Peng Wenfei

Wenzhou Polytechnic, Wenzhou City, Zhejiang Province, China

Abstract: Online teaching is a new trend of information teaching. In college teaching, online teaching and the past teaching methods are gradually running in. The architecture design course can achieve updated teaching design in all aspects of teaching design. The task and objectives of teaching, teaching content and the allocation of teaching resources in the environment of network information, the teaching design concept of architectural design courses in teachers' classroom teaching is constantly improved.

1. Introduction

The informatization trend of contemporary education is gradually appearing in the education and teaching of colleges and universities, making full use of the Internet to carry out education and teaching, enrich the teaching content, improve the awareness of informatization in education and teaching, and promote the development of teaching design. Online teaching can span time and space, allow multiple students to interact in real time, capture information on students' learning patterns, and develop personalized education. At present, how to make full use of the network in architectural design courses, combined with traditional classroom teaching, and make the two complementary advantages, has become a key to architectural design classroom teaching.

2. Definition of Instructional Design

2.1 Connotation

Instructional design refers to the ability to use systematic analysis methods to solve teaching problems, obtain feasible teaching goals based on the analysis results, customize teaching measures suitable for the current teaching situation and solve actual teaching problems, and then according to the experimental feedback of the practical experimental measures to further improve the process of the program. Teaching design uses the characteristics of teacher teaching and student learning, in order to achieve the predetermined teaching effect, design the teaching content and theme of the course, and then plan the process of student learning resources and knowledge learning activities according to the created learning environment atmosphere and student learning characteristics.

2.2 Systematization

Instructional design is a systematic process of education and teaching aimed at students' learning effects and overall development under the guidance of modern education and teaching concepts. The instructional design of the architectural design course studied here refers to the use of relevant design works and design engineering examples in the course of teaching to systematically form a system resource library that the course can call, and then use relevant systematic methods to realize instructional design.

3. Instructional Design Using Network Resources

3.1 Expected Effect

Instructional design relies on network information to obtain teaching resources, and further researches on the teaching comprehension of architectural design courses, so that the quality of education and teaching courses can be improved, and teachers' education and teaching, scientific research ability and information systemization level can be improved. It can integrate information media technology and network resources, improve architectural design teaching, optimize curriculum education and teaching, so that students can learn something, and develop students' better observation ability, problem analysis ability and individual independent learning ability.

3.2 Theoretical Skills Teaching Design of Course Teaching

(1) Ability improvement

Establish an online learning channel for architectural design and use the advantages of the Internet to provide a database with rich information, full content, and smart pictures. The electronic version of the teaching plan and media display system uses interactive teaching methods to make the classroom learning atmosphere more active and vivid, so that students can learn with greater enthusiasm, deepen the application of the knowledge and theory of architectural design courses, and let students learn more brand-new learning thinking is put into learning, and then improve students' professional basic practical ability, information acquisition ability, ability to cooperate with others, and the ability to systematically make full use of the network to deepen learning skills.

Website specific design teaching:

(2) Gather resources

Make full use of online teaching resources, analyse hundreds of teaching architectural design examples, and establish a resource-rich architectural design learning website. Through a large number of architectural design example resources, it helps students to understand the connotation of design, deepen their understanding of architectural design, and obtain inspiration, so that students can find a better balance between their own architectural design concepts and specific implementations.

(3) Blackboard platform

Through the use of the Blackboard platform, students use the forum for discussion and communication, so that students can learn to deconstruct, analyse and design related concepts, evaluate and appreciate in hundreds of campus architectural design plans, and also allow them to improve their aesthetics and the ability to explain architectural design concepts in judging.

(4) Display of student works

Through the university website learning platform, a regularly updated display section of student design works is set up, and the student architectural design works collected by previous universities are transferred to the learning website of related topics. In the course of mutual appreciation, learning, and evaluation, students can take advantage of others to make up for their own shortcomings, and improve their abilities in continuous learning.

3.3 Arrangement of Network Building Design Resources

In the age of information network, make full use of the resources on the network and information technology to realize information sharing and communication that is beneficial to the teaching of architectural design courses. The works collected on the website are detailed and authentic, with professional planes, bird's-eye views, elevations, etc., showing various ways and specific design concepts. The integrated analysis of these materials allows students to obtain the most effective information in a short time. Use space for creative thinking. Moreover, the architectural examples of architectural design works collected in the work resource library are generally comprehensive, including the display of different design schemes under a unified design background, allowing students to find their own unique design concepts and skills through the analysis and appreciation of each scheme.

4. Theory and Practice Teaching Environment

4.1 Theoretical Basis

Apply the theoretical teaching design framework, use the task-driven teaching concept of student learning, and explore the optimization plan of the architectural design course under the network information mode.

(1) Deepen cognition

Students learn theoretical knowledge and practical skills, not only can they only rely on the teacher's teaching, but also in specific situations, with the help of others, to solve the problems encountered in actual learning and acquire more in-depth learning cognition. For example, when learning the knowledge of the principle of "campus architectural design", you can combine modern new teaching methods with the original more suitable classroom education methods, and use multimedia teaching to put actual architectural works of campus buildings in the classroom, supplemented by related videos of actual works, make the building more three-dimensional, so that students can have a deeper understanding of the concept and principles of design.

(2) Setting goals

In terms of cultivating students' knowledge and skills in architectural design, it is appropriate to set an achievable learning goal for them, so that students can independently develop corresponding learning plans based on specific learning goals. According to the plan, students will be guided to use the construction resources to learn the website, adjust and improve the design works, so that students in practice, driven by the goal, assist the appreciation of actual cases, and create better works of their own.

4.2 Technical Learning

In the network environment, architectural design not only depends on theoretical support, but also requires a better technical teaching environment. Actively use the resources, teaching systems and teaching platforms on the Internet to provide a basis for technical teaching.

5. Architectural Design Teaching is Affected by the Network Environment

In the development of the network environment, the relevant teaching programs of architectural design courses have been affected by many. One is the continuous emergence of new architectural design forms. In the network environment, architectural design is no longer restricted by time and space, and network technology can be used to effectively divide the architectural design. Especially

for the teaching of large-scale construction projects, the network can play its synergistic effect, reflecting the cross-regional and even cross-border collaboration in the design, which brings new architectural design forms, allowing teachers to use relevant inspirations in teaching and practice teaching Teach students to fully learn the new architectural design collaboration model and enrich the course content.

The second is to open up the thinking of architectural design teaching. The development of network information technology has facilitated people's lives, and has made the form and thinking of architectural design developed and enriched. Teachers can use the Internet to complete a variety of case analysis and appreciation for students in a short period of time using multimedia, and expand the thinking of teaching design and students' vision.

6. Meaning

6.1 Shortened Information Acquisition Time

Online teaching is a combination of new trends in contemporary teaching and traditional classrooms. The teaching classroom of architectural design needs to fully integrate multimedia teaching methods and component architectural design resource libraries to help architectural students solve the problem of large professional information needs, shorten the information capture time, and improve the effectiveness of learning.

6.2 Improve Teachers' Teaching Ability

The architectural design resources of the platform are integrated into classroom teaching activities, so that the teaching resources can be fully used by students and deepen the communication between students and teachers. In teaching, teachers must constantly improve themselves, improve their own quality and ability, strengthen knowledge application and overall teaching ability, so that teachers can improve themselves in more difficult teaching.

7. Discussion

The continuous improvement of economic conditions makes people put forward higher and higher requirements for the buildings used, not only for the aesthetics of the buildings, but also for higher aesthetic requirements. It also puts forward requirements for the convenience and comfort of use under beautiful appearance. The development of contemporary network information technology provides a lot of assistance for the advancement of architectural design. The technical nature of architectural design also requires each teaching unit to pay attention to information technology, and the improvement of students' architectural design level requires full use of the Internet.

References

[1] Pan Wentao(2016). *Proceedings of the annual conference of modern educational technology in Guangdong province [C] Guangzhou: Educational Technology Center of Guangdong Province.*

[2] Zhao Lingli(2014). *Classroom teaching design and operation technology [M]. Chengdu: Southwest Normal University Press.*

[3] Qiu Zhiqiao, Yu Lijia, Zhang Liqing(2015). *Teaching design based on the "expectation and task" teaching model[J]. Journal of Guangdong University of Technology: Social Science Edition, vol.S1, no.5, pp: 97-99.*

[4] Ding Ping, Pan Zhengwei(2018). *The application of project teaching mode in residential architectural design courses[J]. Journal of Xuzhou Institute of Architecture and Technology, vol.8, no.2, pp: 76-78.*

[5] Liu Xuhong(2010). *Teaching design of architectural design courses under the network environment[J]. Journal of Xuzhou Vocational College of Architecture, vol.10, no.1, pp: 56-58.*

[6] Bai Tian(2017). Teaching research on the integration of modern information technology and architectural design courses[J]. Low Carbon World, no.35, pp: 353-354.