

Teaching Methods of Environmental Design Courses in Applied Undergraduate Colleges under the Background of New Engineering

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Abstract: Improve the obsolete teaching methods of environmental design courses, and improve the teaching efficiency of courses. The environmental design curriculum is modularized and interspersed with various curriculum modules, which are both different and related, highlighting the practicality and originality of related design objects, improving the efficiency of the curriculum, using models to enhance students' understanding of space while improving their aesthetic level, science and system And grasp the whole design project as a whole, to achieve a better teaching effect. Through the model modular curriculum, students can not only form coherence in the learning process, but also reduce the learning time to adapt to unfamiliar teaching systems, thereby improving classroom learning efficiency. The modularization of environmental design curriculum model helps students understand the design project and produce a more systematic and relevant understanding of each course. The purpose of this article is to study the teaching methods of environmental design courses in applied undergraduates in the context of new engineering. This article mainly uses the analysis of the specialty through the professional direction, and divides environmental design into two basic professional directions: interior design and landscape design. In terms of courses, it optimizes the course by allowing commercial designers to join the teaching staff, and improves the course setting and course Instructional design. In terms of experiments, experiments are conducted on environmental design students of a certain undergraduate college, and the same teacher teaches, which guarantees consistency between the content of the course and the progress of the course. Finally, it is concluded that 90% can stimulate learning interest, 92% believe that it can enhance the learning effect, 86% think that it can improve its overall quality, 92% think that it can deepen the memory ability, and think that it can deepen the operation ability 84%, and 96% like a variety of teaching methods.

1. Introduction

The existing teaching method of the environmental design major course is mainly the traditional indoctrination style in which the teacher teaches students to listen to the lecture. The interaction is poor, which seriously affects the growth of students' creative thinking. In addition, the internal courses of the major are not closely connected, resulting in the inability of the students to apply the knowledge in the pre-foundation course to the subsequent professional courses, and the backwardness of the course teaching content and syllabus, which makes the teaching content consistent with the times and Social reality is disconnected from each other, and the content of student learning cannot generate corresponding value after employment. Many courses are only for the purpose of completing the tasks of this course, and ignore the introduction of subsequent courses. These are the disadvantages of the current environmental professional courses. Environmental design is a highly practical subject. The traditional teaching model can no longer meet the needs of advanced society for application-oriented talents. Many students' professional

knowledge learned in school cannot be applied to work, resulting in low employment rates. In the framework of theoretically guided practice, it is more important to teach students how to apply theory to practice, to make theory serve practice, to make reference and basis for practice, to combine knowledge with practice, and to learn to optimize the theoretical structure and increase The method of knowledge content can be used as a bypass to transform theoretical knowledge into productivity and improve one's business level ability.

Environmental design is an applied specialty that combines theory, technology, and practice. It consists of two parts, the space planning and the artistic conception plan of the environmental design project and it can be refined to aesthetic functions and use functions. The teaching of this experiment is part of the important practice of cultivating university-related professional students [1]. With the rapid development of industry and the development of urbanization, the problem of environmental pollution has become more and more prominent, and has a high degree of theoretical knowledge, strong practical ability and innovative entrepreneurial ability. Need training. Meet social development and market needs [2]. Therefore, after revising the "Human Resources Development Plan 2017", this article analyzes the status quo of experimental education in environmental design specialty and proposes a series of new reform measures [3]. For example, a new experimental curriculum system has been established, integrated, designed and innovative experiments have been added, experimental teaching methods have been enhanced, experimental evaluation systems have been enhanced, and laboratories and off-campus practice bases have been enhanced. We will master practical skills and practice in accordance with the requirements of practice, and continue to innovate and boldly innovate. Is demand.

Environmental design is related to a wide range of art and design types and is a collection of design types. In short, environmental design is defined by the indoor and outdoor space environment. It has a wide range of specializations and is mainly used in interior design and interior design, lighting, furniture and display. There are also landscape design and architectural spaces, public facilities and public environments. In fact, the Department of Environmental Design established at the University of Applied Sciences is an "Environmental Design" specialty, which incorporated landscape design (such as public environment and public facilities) into the first interior design department. However, in the four-year curriculum, the development of environmental design failed to include so many professional courses, which caused many problems in the process of establishing environmental design for applied universities. This article mainly analyzes the professional direction and divides environmental design into two basic professional directions: interior design and landscape design. Optimize the curriculum by adding business designers to the faculty, and improve curriculum and instructional design. In terms of experiments, experiments are conducted on environmental design students of a certain undergraduate college, and the same teacher teaches, which guarantees consistency between the content of the course and the progress of the course.

2. Method

2.1 Separate two Basic Professional Directions of Interior Design and Landscape Design

The environmental design major is divided into interior design and landscape design, which helps students to understand their professional identity and future development direction, so that students can learn and understand in different design directions [4-5]. In the teaching arrangement, the original course of environmental design can be changed to cover all aspects, forming different professional characteristics, making the teaching purpose more clear, and promoting the healthy development of the environmental design professional group [6].

2.2 Optimize the Course Structure and Let Commercial Designers Join the Teaching Staff

At present, there are too many painting courses in university environmental design courses, which take up a lot of time in the design process, resulting in students' unclear understanding of environmental design and business design [7]. Therefore, first, we use the types of environmental

design available on the market (Such as office space design, commercial space design, residential landscape design, park and square design, urban landscape design, resort planning and design, guide) system design, utility design , Lighting design, etc. [8]. Second, applied science and university teachers usually teach from master's degrees to universities. They do not have enough business design project design experience. On the teacher side, they can use the main course to guide students through job design for job designers with design experience [9]. Business design teachers will help students become familiar with business design models as soon as possible and adapt to society as soon as possible after graduation.

2.3 Improve the Curriculum

The curriculum of applied undergraduate environmental design should be based on the establishment of innovative design ideas, and the core curriculum should be based on the project design system. The design of the project is related to the design of the main course, which should include technical and auxiliary courses [10]. According to the form of environmental design, from simple to deep, from small to large, from home to office, from business to public. Through the step-by-step teaching method from small space to large space, students gradually understand the form of design and deepen their understanding of design [11]. In terms of teaching methods, the Department of Interior Design can use the introduction of interior design → residential space design → office space design → commercial space design → public space design teaching process [12]. The landscape design department can adopt the education process of landscape design guide → landscape design → residential landscape Design → square park planning and design →coastal landscape planning and design education process. The main course is divided into five semesters on average, with four lessons per week. Therefore, the main curriculum runs through each semester. Students' understanding of environmental art design is a gradual process. Taking a professional course every hour can help students digest and absorb the understanding of design.

2.4 Improve Course Instructional Design

The teaching design of the curriculum of the application-oriented undergraduate environmental design major should be based on cultivating students' expandable design thinking. The teaching of professional courses should enable students to have a certain understanding of the work of commercial designer positions. In teaching design, teachers can bring actual cases of decoration companies into classroom teaching, so that students can recognize and understand more design forms and creativity. For example, in the course of home space design, teachers can ask students to draw their own home plans in the form of sketches, then analyze the advantages and disadvantages of home design, guide students to improve, and require students to create more than 5 types. Different designs. Such instructional design will greatly expand students 'understanding and understanding of home space design. Doing different solutions in the same space can expand students' understanding of space division, so that students can adapt to customers in modern business design more quickly after graduation. Claim.

3. Experiment

3.1 Research Object

The study was conducted with 100 environmental design students in the 2018 undergraduate school, aged between 19 and 23. The course is divided into observation group and control group, each group has 50 students. It is a school composed of the same teacher, which guarantees consistency between the content of the course and the progress of the course. The general materials of the two groups of environmental design students are relatively the same and have statistical significance.

3.2 Method

(1) The control group adopts the traditional teaching method, and according to the method described by the teacher, through the lectures on the principles of knowledge, conclusions, etc. to

achieve the educational purpose.

(2) The observation group adopted various intelligent education methods and different education methods according to the learning content. In normal classrooms, environmental designers are used to joining teaching teams. In terms of teaching methods, the interior design major can adopt the teaching process of "Introduction to Interior Design → Residential Space Design → Office Space Design → Commercial Space Design → Public Space Design". Landscape design majors can use the teaching process of Introduction to Landscape Design → Landscape Design → Residential Landscape Design → Plaza Park Planning Design → Waterfront Landscape Design Planning and Design. Establish a variety of assessment mechanisms, focusing on daily results and physical education, 80% of the assessment results, 20% of the usual results, that is, "8 + 2" mode, 1/4 of the course exams completed in class, 20% of mid-term exams, final The usual performance of 40% of the exam includes 5% attendance, 10% of classroom questions and discussions, 5% of homework and basic assessment of classroom assessment are mainly the correctness of answering teachers' questions and whether there are reasonable and correct opinions in classroom discussions. Students can consult Chinese and English literature, actively participate in class discussions and get extra points.

4. Discussion

4.1 Course Integration Optimization

Regarding the integration and optimization of courses, it is mainly reflected in the reconfirmation of the types of courses. Among them, the key to optimizing teaching lies in the setting of professional core course modules, the internal optimization of modular courses and the selection of learning elements. Introduce the latest technology and specifications of the industry, and strengthen integrated functions such as self-study. The integrated modular curriculum and course content are mainly aimed at developing students' core professional skills. Based on optimized content, multiple modules should not be duplicated or interfered with.

(1) Through the analysis and determination of regional industry and labor market demand, new undergraduate colleges are required to keep up with changes in the demand for various types of talents in the market, break the rigidity and formulate teaching plans, and take the training of talents as the general principle. Adjust the personnel training and operation system. However, to achieve this, the key is to set up enough courses to meet the requirements of the job description. Curriculum developers must, from the perspective of students' application-oriented ability cultivation characteristics and individuality, flexibly set specific teaching structures and teaching module structures and characteristics in the form of module teaching. From a conceptual perspective, professionalism is the macro positioning of several major and professional job groups. In today's era, no major can correspond exactly to the position, and can only cover it relatively. Therefore, higher education must start with the application-oriented talent training plan of newly-established undergraduate colleges and explore the flexible combination of capacity-cultivation units in the process of application-oriented talent training, and adjust and develop it. Modular courses can better solve this problem.

(2) On the basis of curriculum optimization and integration, a view of curriculum resources based on applied talent training plans is established. The understanding of curriculum resources is mainly reflected in the various elements that serve to achieve the teaching goals in the process of organizing and implementing teaching activities, such as teaching materials, teaching aids, auxiliary training equipment, and venues. Among them, the teaching methods of applied materials have extensive reference and influence. It can only be achieved from the perspective of the particularity of applied talent training, the perspective of applied talent training that serves the development of local industries and industrial structures, and from the perspective of innate characteristics established by universities and the correct understanding of talents. The teaching resources in the modular curriculum system can make these educators change their adherence to traditional teaching resources more profoundly. With the implementation of the applied talent training plan, the

teaching material of the applied talent training course has become not only a curriculum resource, but also one of the resource elements.

(3) Flexible setting of "student-centric" modular learning elements. Students at the new university are the focus of educational activities. Teachers must implement the "student-centered" teaching concept based on the actual situation of students' learning ability and learning background. Due to the characteristics of student learning and the uniqueness of applied human resource development, its core is to provide students with applied applied human resource services, which is a bold and reasonable new breakthrough in various traditional teaching elements. achieve. At this stage, reorganizations and upgrades will be performed to meet the actual needs of training application environment designers.

Table 1. Course hour allocation

Course type	Credits	Percent (%)	Hours
Common base module	38	18.1%	560
Professional Foundation Module	36.5	17.4%	542
Professional Module	62	29.5%	972
Comprehensive Practice Project	42	20%	852
Quality development link	31.5	15%	486
total	210	100%	3412

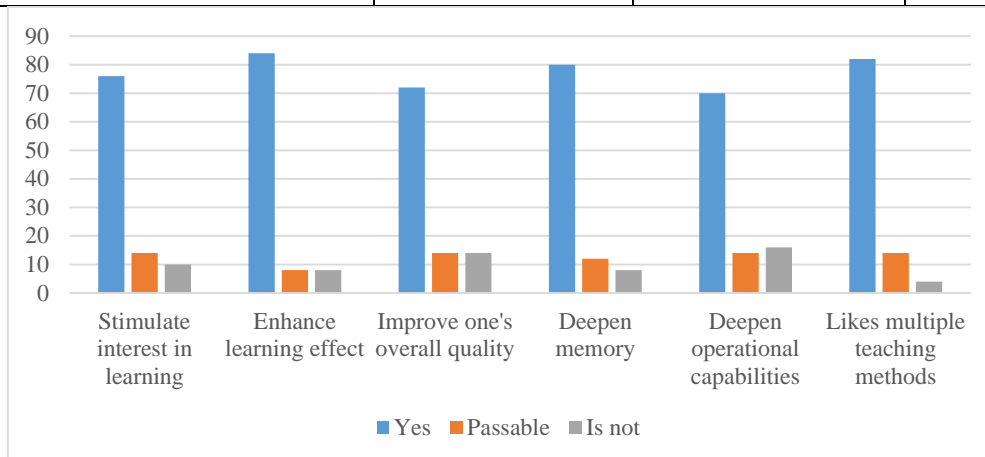


Figure 1. Evaluation of the improved teaching method by the observation group (unit%)

Through this experiment, it was found that 90% of the students thought that they could stimulate the interest in learning, 92% thought that they could enhance the learning effect, 86% thought that they could improve their overall quality, and 92% thought that they could deepen their memory ability. 84% of those who have deepened their ability to operate, and 96% of those who prefer a variety of teaching methods.

4.2 Recommendations

4.2.1. Establish assessment

Curriculum assessment and evaluation can test the teaching effect of undergraduate college applied talent training programs, and reflect students' application of curriculum knowledge and skills. Application-oriented talents should serve local economic development, and they must solve difficult problems in their work through skilled skills, innovative thinking, and solid basic theories. Through assessment, they must meet the needs of cultivating application-oriented talents with strong comprehensive capabilities. Through the experimental teaching link: increase process assessment items such as previews, experimental process performance, and experimental reports; corporate course assessments, by establishing assessment mechanisms and standards with partner companies, studying assessment methods, and taking the form of course defense, with student total score = group score $\times 0.5$ + personal score $\times 0.5$ stimulates students' learning interest and enthusiasm.

Explore a variety of curriculum assessment methods. Full-process assessment: The assessment should be carried out from the beginning of the course to the end of the course. The evaluation and assessment of students should include their participation in learning and interaction, feedback from social practice work, completion of homework tasks, experiments and research projects. Investigative ability, and study and discussion in daily life. The assessment standards for different majors and courses should be different.

Achieve fairness in the evaluation process. In order to ensure the fairness and fairness of examinations and evaluations, professional lesson exhibitions, special report exhibitions, and project defenses can be implemented to ensure the fairness of evaluations.

Establish diversified evaluation subjects. Let enterprises and industry experts participate to understand whether the talent training specifications can meet the needs of society and meet the needs of enterprises and industries for talents.

4.2.2. Establish a quality monitoring system

Newly established undergraduate colleges and universities establish their own talent training quality monitoring and supervision system, which is the basis for their healthy development and control of the teaching lifeline.

Contents of monitoring and evaluation of teaching quality In the reform of applied talent training, new undergraduate colleges and universities should consider establishing a full-process, comprehensive, and full-scale monitoring and evaluation standard. The department monitors and evaluates the teaching management level of the department, the quality of dual teachers with teachers, and the learning characteristics of students.

Teaching quality monitoring and evaluation model In the course of teaching implementation, the monitoring and evaluation of teaching quality has become a sharp edge. External monitoring and self-management affect each other and complement each other in order to meet the needs of current talent training.

5. Conclusion

Experimental teaching reduces the content of confirmatory experiments, adds comprehensive, design and research experiments, improves students' creative ability, truly combines theory with practice, learns and uses environmental design specialty, and truly realizes The application of learning has effectively improved the teaching effect. Quality makes the teaching of environmental design more professional and meets the needs of environmental professionals. This article divides environmental design into two basic professional directions mainly through the analysis of changes in professional directions: interior design and landscape design. Optimize courses by adding senior engineers to the faculty, and improve course settings and instructional design. In terms of experiments, experiments are conducted on environmental design students of a certain undergraduate college, and the same teacher teaches, which guarantees consistency between the content of the course and the progress of the course. Finally, it is concluded that 90% can stimulate learning interest, 92% believe that it can enhance the learning effect, 86% think that it can improve its overall quality, 92% think that it can deepen the memory ability, and think that it can deepen the operation ability 84%, and 96% like a variety of teaching methods.

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