

Research on Educational and Teaching Reform of Environmental Design Major in Yili Normal University

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Abstract: The School of Fine Arts and Design of Yili Normal University, adheres to the educational concept of “moral education,” the educational basis of “traditional culture,” the teaching navigation of “intelligent design,” the teaching method of “immersion practice,” combined with the ideological and political courses of “mutual learning of civilizations” and “Garrison patriotism,” has carried out a series of educational and teaching reform research. This article from the professional curriculum, graduation design, summer practice and other related teaching work one by one.

Keywords: Environmental design; Education and teaching; Teaching reform

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1. Expansion of teaching content

This semester, the main classes are Environmental Design 2021-2 and Environmental Design 2022-2. The teaching course is “Landscape and Garden Design”, with 72 class hours.

1.1. Content teaching of the “Landscape and Garden Design” course

The course “Landscape and Garden Design” aims to train students to have the basic theoretical knowledge of landscape and garden design, and understand the similarities and differences between Chinese classical gardens and Western classical gardens in terms of origin, flow and layout. Understand the classics, make the past useful for the present, enhance the self-confidence of national culture, master the drawing expression of landscape and garden design, as well as the practice of engineering projects^[1]. In terms of the teaching content of “Landscape and Garden Design” course, teachers mainly taught the overview of landscape and garden design, landscape and garden planning and design, formal rules of landscape and garden design, landscape and garden design procedures, Topics such as urban public space landscape design, residential environment landscape and garden design, courtyard design, campus landscape design, integrated practice of landscape planning and design in tourist resort, etc. involves the application of design drawing expression and

construction practice ^[2]. At the same time, in the ideological and political content of the course, the emphasis is placed on the understanding of Chinese classical garden classics, the use of the past for the present, and the enhancement of national culture self-confidence ^[3].

The disadvantages include the comprehensive design of this semester's "Landscape and Garden Design" course is divided into two, whose themes are "Yining Airport Environment Landscape Design (I)" and "Yili Normal University Campus Landscape Design (II)." Among these, the comprehensive design of the course (I) is the comprehensive design of the usual homework practice, and the comprehensive design of the course (II) is the comprehensive design of the final exam. The comprehensive design of the above two themes belongs to the "false questions and real work," and the students did not participate in the specific practical projects. Therefore, this course does not arrange the field design practice of garden sites.

1.2. Course design competition

Through the two comprehensive course designs of Landscape and Garden Design this semester, students were guided to participate in two different categories of competitions: the 14th "China Space" Design Competition (2024) and the 10th "Zhongbei" National College Students Environmental Design Competition (2024).

In the 14th "China Space" Design Competition (2024), Huang Chenlu, Wang Kaiqiang and Liu Jiaru, who guided the students to participate in the general competition area of the national competition, respectively, their works "Sharing" campus landscape transformation design, "New Happy Yan" campus landscape transformation design and "Youran Lexian" campus transformation design. Wang Kaiqiang won the bronze Prize in the end.

In the 10th "China Installation Cup" National College Students Environmental Design Competition (2024), Wang Shouyan and Yang Jiahe, who guided students to participate in the national competition, respectively, their works are "The Treasures of Human Ecology: Reform and Improvement of Campus Environment of Yili Normal University" and "Coexistence of the Same Department and Different Borders: Reform and Improvement of Campus Environment of Yili Normal University" ^[4]. The above two students participated in the "Landscape Architecture" circuit. At present, this competition is still in the selection stage.

Among the disadvantages, under the principle of "promoting teaching through competition" and "complementing competition and teaching," it is necessary to form a mature curriculum design standard and the regular requirements of large-scale competitions, so that the matching degree between curriculum design and large-scale competitions is more unified, while the competition will become a systematic and normal norm ^[5]. In addition, the participation of the total number of students in guiding the competition is not enough, and the quality of the work itself needs to be improved.

2. Transfer of teaching methods

The teaching methods of "Landscape and Garden Design" include both the characteristic methods of environmental design specialty and the research methods of engineering nature. In the teaching methods of "Landscape and Garden Design," teachers mainly use three kinds of teaching methods: theoretical teaching, practical teaching and comprehensive teaching.

2.1. Theory teaching

Using the combination of text and pictures, the use of PPT, video, material and other auxiliary equipment,

combined with theoretical knowledge points to conduct exploratory teaching ^[6].

(1) Interactive teaching is adopted

Stimulate students' interest in active learning through classroom discussions, questions and theme reports, cultivate students' ability to think independently, analyze problems and solve problems, and guide students to acquire the knowledge they want to learn on their own initiative.

(2) Multimedia teaching is adopted

This is to increase the amount of information in classroom teaching and enhance the intuitiveness of teaching. Explore the use of flipped classrooms and mixed teaching modes to improve students' participation, active classroom atmosphere, and enrich teaching forms.

(3) Use case teaching method

Choosing classic landscape and garden design cases, through the analysis of their design characteristics and artistic characteristics, improves students' aesthetic and appreciation ability ^[7]. At the same time, theory teaching and case explanation are combined to cultivate the student's ability to apply professional knowledge and solve practical problems in landscape and garden design ^[8].

2.2. Practical teaching

Practical teaching follows the principle of combining theory with practice, combines teaching with demonstration and practical operation, and conducts full investigation and analysis around landscape and garden projects, which is the continuation of the design concept integrated into the subject ^[9]. Through this practice, students can complete the basic tasks of market research, scheme design and optimization, design expression, and display according to the basic process of landscape and garden design, and have the thinking ability and basic methods of landscape and garden innovative design ^[10].

(1) Topic selection and market research report

Determine the theme of landscape and garden design, carry out market research (mainly network research), and complete the research report: introduction of the selected design theme; Landscape and garden design conception, design direction and innovation points, etc. The research report can be presented in a combination of text and pictures.

(2) Sketch design and scheme optimization

Freehand landscape and garden design concept scheme plane bubble diagram, elevation diagram structure diagram, and perspective effect diagram. The conceptual plan sketch should be able to clearly express the layout of the design plan, functional zoning, and road traffic relations. Other drawings or descriptions may be added as appropriate if necessary.

(3) Scheme layout and display performance

Optimize the scheme design from the conceptual design scheme. First, complete the set of drawings of landscape and garden design, such as location analysis, plan, elevation, section, functional zoning, road analysis, landscape node diagram, perspective effect diagram, aerial view diagram, etc. Then, in terms of the theme layout, display the whole scheme on A2 drawing paper. The layout should have a title, design description, related drawing expression and other content. The layout design should be beautiful and generous, and the exported layout JPG should not be less than 300 dpi.

2.3. Comprehensive teaching

2.3.1. Application of interactive learning, “flipped classroom” teaching

The flipped classroom shifts the decision of learning from the teacher to the student. Students learn the course content independently by using the materials provided by teachers (such as video, audio, PPT, electronic textbooks, etc.). Before class, while in class, they focus on subjective initiative and emphasize teacher-student interaction, which plays an important role in improving the quality and effect of teaching. Through AI technology, big data is used to analyze students' learning behaviors and habits and provide teachers with targeted teaching suggestions. Intelligent teaching systems can be used to provide personalized learning resources and feedback to students.

2.3.2. Consolidate the foundation, “repeated interactive” teaching

Through the method of “repeated interaction,” students can deeply understand the basic concepts of landscape and garden design, basic components, layout forms, landscape techniques, design practice procedures and steps, and other basic subject concepts.

2.3.3. Participate in the design competition, “competition to promote teaching” teaching

Encourage students to participate in various types of competitions through the course assignments of “Landscape and Garden Design,” promote the teaching of this course in the form of participating in design competitions, and interact and complement the teaching content of this course.

3. Graduation design guidance

In the teaching work of this semester, there is also graduation design guidance. The author and teacher Qi Yun jointly guide Gu Liziba, Gong Xiaoyue, He Ruonan, Li Ruiying, Su Haitao, Wang Haojie, six students majoring in environmental design in 2020. Among them, Gong Xiaoyue and Su Haitao participated in the excellent graduation design exhibition.

At the same time, graduation design works were submitted to three design competitions. In the 14th “China Space” Design Competition (2024), Gong Xiaoyue’s “North Lake Spring City Military Reclamation Cultural Landscape Design,” Su Haitao’s “West End New City Intangible Cultural Heritage Street Design,” Li Ruiying’s “Heart Jun Like the Moon: Wedding Planning Environment Design Centered on Aide-Les-Cultural Heritage,” He Ruonan’s “Cloud Mirror Landscape.” Digital Landscape Design of Daizi Reservoir was submitted to the competition by four students, and Su Haitao and He Ruonan won the bronze Prize.

In the 10th “Zhongbei Cup” National College Students’ Environmental Design Competition (2024), Gong Xiaoyue’s “Garrison Military Reclamation: Cultural Landscape Design of North Lake Spring City Military Reclamation” entered the competition as “Public Art” track, and Su Haitao’s “Xidian New Town - Intangible Cultural Heritage Block Design” entered the competition as “Architectural Design” track. At present, the competition is still in the selection stage.

In the 6th “Silk Road Spirit” Design Heritage and Future Exhibition (2024), Gong Xiaoyue’s “North Lake Spring City - Military Reclamation Cultural Landscape Design” and Su Haitao’s “West End New Town - Intangible Cultural Heritage Block Design” submitted the competition, which is still in the selection stage.

The current shortcomings included are:

- (1) The supervision of students needs to be strengthened to complete the progress of graduation design;
- (2) The preliminary research process of the graduation project is not sufficient;
- (3) The graduation design model is too rough;
- (4) The layout of the exhibition board is not rich enough;
- (5) The graduation project lacks video content.

4. Summer social practice

Under the leadership of Wei Dong, Secretary of the Youth League Committee, the author and Wang Lili jointly investigated the cultural heritage, cultural relics, and historic sites of Qapukal County, Yili, Xinjiang, with the theme of “Defending the Country and Guarding the Border: Investigation of Karon Ruins of the Qing Dynasty in Qapukal County.” The summer social students of this semester are composed of 15 freshmen and sophomores majoring in environmental design, fine arts, and painting.

Based on deepening the study, publicity and implementation of the Party’s 20 Great Spirits, the summer social practice passed on the enthusiasm of loving the Party, loving the country, and socialism. Through the investigation of local cultural relics and history, red resources, advocating red footprints, defending the country and the border, etc., the young students were guided to learn history to understand, learn history to increase credibility, learn Shi Chongde, and learn history to act ^[11]. The purpose of the practical inspection was to deeply study and understand the rich historical and cultural relics in your region, promote academic exchanges and cooperation, and promote the protection and inheritance of cultural heritage ^[12]. The team members inspected seven Karon sites respectively, which were: Touhu Karon Site, Wutongzi Karon site, Dolan Tu Karon site, ABU Santer Karon site, Tukurhun Karon site, Hongnahai Karon site, and Natan Mukkaron site, the ancient city sites, ancient architectural features, cultural relics, monuments and cultural heritage sites were recorded in detail and the collected data were analyzed in detail. This process not only felt the charm of national culture but also understood the importance of carrying forward the fine traditional Chinese culture and promoting national unity and development, which laid a solid foundation for further in-depth follow-up activities ^[13].

5. Summary

In short, this summer practice survey let the team members feel the charm of national culture, stimulate patriotic feelings, and explore how to inherit and carry forward the excellent traditional Chinese culture in the new era. Understood the historical origin, development and changes of Xibe nationality and the folk customs of Xibe people living near the mountains and rivers, deeply realized the important role of Xibe nationality in the long river of diversified and integrated Chinese culture and history, and Xibe nationality has made great contributions to the stability of China’s border area and national unity ^[14]. Taking this as an opportunity, the practice group will continue to deepen the historical and cultural heritage of Xinjiang in the later period and contribute its strength to the development of China’s national cultural undertakings and the inheritance of the red spirit.

This semester’s “Landscape and Garden Design” course has achieved a good teaching effect, but there are also some shortcomings. Future teaching will continue to work hard to improve the teaching methods and means, improve the teaching quality, and provide students with better learning experiences and development

opportunities^[15]. The details need to be corrected urgently is the applied teaching of AI design.

Disclosure statement

The author declares no conflict of interest.

References

- [1] Huang H, Huang Y, Chen X, 2022, Thinking and Action on Teaching Reform of Environmental Design Major in Sichuan Fine Arts Institute under the Background of “New Liberal Arts.” *Decoration*, 2022(6): 66–67.
- [2] Qiao Z, Chen S, 2023, Teaching Reform of Environmental Design Practice Courses Guided by Subject Competition. *Packaging Engineering*, 44(S01): 645–650.
- [3] Zhang H, Tian C, Fu X, 2023, Exploration on Teaching Reform of Landscape Design Course for Environmental Design Majors in Universities. *Art Education Research*, 2023(3): 112–114.
- [4] Wang L, 2023, Research on Curriculum Reform of Environmental Art Design Major in Vocational Colleges. *International Education BBS*, 5(6): 4–6.
- [5] Zeng F, 2023, Research on Practice Teaching Reform of Environmental Design Specialty. *Industrial Design*, 2023(3): 38–40.
- [6] Chen F, 2024, Research on Teaching Reform and Practice of Basic Courses of Landscape Design. *Shaanxi Education (Higher Education Edition)*, 2024(2): 42–44.
- [7] Xiao X, Li M, 2023, Research on Teaching Reform of Display Design Based on Training of Applied Innovative Talents. *Journal of Chifeng University (Natural Science)*, 39(12): 88–91.
- [8] Jin J, Hou L, Hu Y, et al., 2023, Research on Teaching Reform of Landscape Architecture—Urban Corner Space Design. *Huaxi*, 2023(20): 0145–0147.
- [9] Zhao P, 2023, Teaching Reform and Practice of Landscape Architecture Design under Double First-Class Strategy. *Central South Agricultural Science and Technology*, 44(10): 210–213.
- [10] Yu S, 2023, Research on Landscape Architecture Design and Space Art. *New Materials. New Decoration*, 5(9): 44–46.
- [11] Jin JH, 2023, Analysis of the Integration between Architectural Design and Landscape Design. *Chinese Science and Technology Journal Database (Full Text) Engineering Technology*, 2023(3): 3.
- [12] Yu J, Gong Y, 2023, Teaching Research and Practice of “Principles of Landscape Architecture Design” Based on Curriculum Ideological and Political Goals. *Anhui Architecture*, 30(8): 93–95.
- [13] Tian Y, Fu L, Nan N, et al., 2023, Inheriting Chinese Excellent Traditional Culture—Research on Teaching Practice of Landscape Architecture Specialty. *Forestry Science and Technology Information*, 55(1): 179–181.
- [14] Wei W, 2022, Research on the Reform Path of Ideological and Political Teaching of Landscape Architecture Course Based on Cultural Self-Confidence. *Public Digest*, 2022(48): 7–9.
- [15] Wu X, Huang G, Wen D, 2023, Research on Competition-Oriented Teaching Reform of Environmental Design Professional Practice Course. *Daguan*, 2023(10): 124–126.

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