

Discussion on Teaching Reform of Landscape Architecture Design Courses

Zhoulin Han, Yunxiao He

School of Urban and Rural Planning and Construction
Mianyang Teacher's College
Mianyang, China
Hanyalin2001@qq.com

Abstract—Landscape architecture design courses, set up to develop students' professional design ability and train their design thinking, play a key role in landscape architecture course system. In order to improve the quality of landscape architecture teaching in local universities and cultivate graduates who meet the needs of social position, the traditional curriculum system of landscape architecture in local universities was analyzed to find some problems in common. Following the instruction proposed by the China's Ministry of Education and National Development and Reform Commission that local universities should attach importance to application-oriented teaching, this paper discusses the reform measures of landscape architecture planning and design curriculum system from formulation to implementation. Finally, further thinking on the direction of future landscape architecture curriculum reform is proposed.

Keywords—local universities; landscape architecture; course system; reform

I. INTRODUCTION

Landscape Architecture is an applied discipline related to nature, science, humanities and art. In addition to the traditional agricultural and forestry colleges, many local colleges including normal university, art academy and private college have also established landscape architecture specialty. Zhao Yinquan have put forward the current situation, problems and countermeasures of landscape architecture specialty in local normal colleges^[1]; Bi Yifei has analyzed the current situation of undergraduate education of landscape architecture specialty in local colleges^[2]; Yan Hui has put forward the construction of modular teaching system of Landscape Architecture specialty in local undergraduate colleges^[3]; Wang Pingwu has point out the characteristics of Landscape Architecture specialty in art colleges^[4]; Zhang Yanghan has studied the characteristics of newly-established landscape education in local normal universities^[5]. All of them have made a beneficial exploration of the new education system and teaching methods in local universities. Relevant research on the teaching reform of Landscape Architecture course mainly focuses on introducing new teaching methods or teaching modes, such as "project teaching" method proposed by Zhao Liyan^[6] and "flip classroom" teaching mode proposed by Yang Jingyan^[7], while relatively few studies have been conducted on the reform of design course system.

II. REFLECTIONS ON TRADITIONAL LANDSCAPE ARCHITECTURE DESIGN COURSES

Planning and design courses, the core courses of Landscape Architecture specialty, play a vital role in Landscape Architecture education. Local universities have short running time and insufficient experience. It is of great significance to analyze the limitations of their curriculum teaching and personnel training modes, and summarize the urgent problems in the existing curriculum teaching for the implementation of curriculum reform.

A. Ignoring basic courses of engineering

China's Academic Degree Committee and Ministry of Education promulgated the Catalogue of academic degree awarding and talents training disciplines in 2011. Landscape Architecture has become one of the first-level disciplines, listed in the engineering disciplines, which is different from agricultural degrees^[8]. Accordingly, students need to firmly grasp the basic knowledge of engineering courses, such as engineering drawing, preliminary design, etc. As far as the current curriculum system of landscape architecture in local universities is concerned, insufficient attention has been paid to these basic courses. The situation cutting the hours of basic courses to increase the hours of specialized courses has appeared in many universities, which is not conducive for students to enter the next learning stage of professional courses.

B. Lack of cohesion in design-related courses

Comparing and analyzing the curriculum system of many local universities, we found that the order of design courses is confused and the process characteristics of students' learning are neglected. Design-related courses are not arranged in a gradual and orderly manner which cause that the knowledge of the course is forgotten easily by students before entering the next course. At present, too much attention is paid to the independent study of each course in Landscape Architecture curriculum setting, while the relevance of each learning stage, course content and Landscape Architecture planning and design teaching is neglected unfortunately.

C. The low quality of practical teaching

There is a widespread situation of emphasizing theory over practice in Landscape Architecture curriculum setting. With the

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limitations of facility investment, teaching conditions and students' autonomous learning ability, the quality of practice teaching has been very difficult to improve for a long time. How to solve this problem and develop students' practical ability has become the focus of curriculum reform.

D. Lagging course content

While ecological civilization construction is vigorously advocated in China, the teaching content of ecology and environment in Landscape Architecture education is relatively deficient [9]; the social problems and social needs in urban landscape greening are seldom discussed; the new achievements, advanced technology and novel ideas of landscape architecture industry are not introduced deeply. In the result, it is difficult for students to understand and grasp the frontier theory and technology of this discipline. More importantly, the knowledge system they master is also not easy to meet the needs of practical design.

planning and design courses group. With the mutual support and supplement between courses, the drawbacks caused by disjointing courses can be solved.

III. SUGGESTIONS ON THE REFORM OF DESIGN COURSE SYSTEM

Landscape Architecture as a representative course of applied disciplines involves a wide range of subjects with strong engineering practicality. In the process of constructing the training system, teachers need to highlight the characteristics of "engineering practicality" of the curriculum, and take "comprehensive design" as the main design method to form a landscape architecture curriculum system with design as the main line, in order to improve further students' practical ability.

A. The formulation of curriculum system should adopt various opinions

On the one hand, priority should be given to social needs. Relevant management and employers could be invited to participate in the adjustment of the curriculum system which contributes to fully realize the needs of enterprises and market. The needs of enterprises and market are embedded into the training and teaching system to achieve the goal "Order-Style" culture. On the other hand, universities need to establish close links with graduates. It is suggested that follow-up interviews should be conducted among graduates, and feedback information should be collected in terms of curriculum design and ability development.

B. Design courses are integrated into curriculum groups

The main courses are supposed to be divided into many curriculum groups based on the requirements of ability cultivation, such as plant cultivation, maintenance and management ability course group, planning and design ability course group and construction organization and management ability course group [10,11]. Students could conduct intensive learning on a certain aspect according to their own interests and future career planning. "Art Foundation", "Preliminary Design", "Landscape Performance Techniques", "Computer Aided Design", "Landscape Planning and Design", "Architecture Design", "Landscape Heritage Protection and Design", "Landscape Plants Configuration and Landscaping", "Scenic Area Planning and Design" could be integrated to landscape

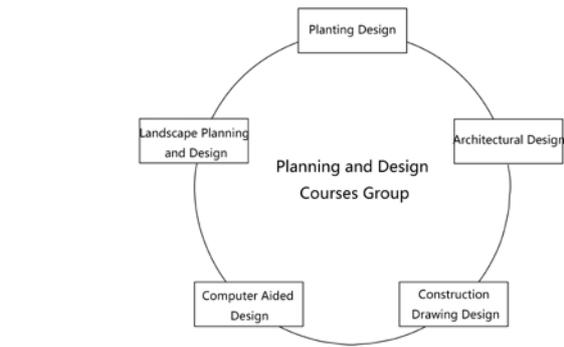


Fig. 1. Landscape Architecture design main courses cluster

C. Enhancing the Link between Courses

It is very important to strengthen the connection between courses for Landscape Architecture specialty, which would directly determine whether students can absorb professional knowledge firmly. The sequence of basic courses and intensive courses should be arranged reasonably, and the cohesion and transition between courses should be controlled effectively. It is a good way to divide the teaching stage, from the shallower to the deeper, from the simple to the complex. In the first stage, guiding basic courses could be arranged, such as "preliminary design", "landscape performance techniques" and "computer aided design", to stimulate students' interest and lay a solid foundation for further study in the next stage. In the second stage, the main line of landscape architecture teaching with planning and design as the core is formed through the course group teaching method. Students are trained to understand and apply the knowledge of courses comprehensively in this stage. It is better that little curriculum are arranged in the third stage to keep ample time for students to do professional practice and graduation design.

D. Enriching the content of comprehensive practice

In view of the low quality of practice, schools should vigorously develop "student-centered" comprehensive teaching practice. Students are the focus of the classroom and teachers play a guiding role in the whole teaching process. Students are encouraged, under the impetus of curriculum tasks, to actively consult materials, obtain information and apply theories. In this way, dull teaching will be transformed into inquiry learning [12]. There are three specific steps. Step one: site reconnaissance. It is a stage to cultivate students' sense of scale, space and the ability to observe and analyze the site. Step two: practical case design. It is a stage to let students understand the design principles and requirements of various landscape design methods, such as residential landscape design, road landscape design, square landscape design, riverside landscape design, etc. Step three: construction site observation. It is a stage that students could understand the relationship among materials, scales and other elements in landscape design, and reflect on their own design at the same time.

E. *Constructing the second classroom*

The theoretical curriculum system constitutes the first classroom, while the practical teaching system constitutes the second classroom. The second classroom, as the extension and expansion of the first classroom teaching, is an important way to cultivate and develop students' comprehensive abilities. There are some measures being explored. Creating a model to connect the teaching platform with local enterprises and professional associations, which can broaden students' horizons. Encouraging students to participate in practical engineering projects under the guidance of teachers in studio, such as landscape planning and design studio, construction drawing studio and cost studio, could cultivate students' application ability and innovation ability. Providing financial support and introduction of social resources for the landscape design company founded by students. In addition, students' ability to deal with problems independently should also be improved.

IV. DIRECTION OF FURTHER REFORM AND EXPLORATION

A. *How to mobilize the enthusiasm of enterprise industry*

Landscape Architecture is an applied subject. The depth and breadth of school-enterprise cooperation is directly related to the quality of personnel training and the realization of social functions of higher vocational education^[13]. However, local application-oriented undergraduate universities in China are in the initial stage of transformation and development. School-enterprise cooperation is mainly confined to the co-construction of student practice bases, order-based training, post-practice, etc., but overall, the mode of cooperation is relatively single and the content of cooperation is insufficient. There are many reasons for this situation. The main reason is that school and enterprise do not have a proper understanding of the connotation and significance of cooperation. They do not establish a long-term mechanism and restraint mechanism for cooperation, lack of motivation and enthusiasm for cooperation for their own reasons, lack of preparation for school-enterprise cooperation in local colleges and universities, and finally, have not formulated a scientific and rational school-enterprise cooperation program. How to turn school-enterprise cooperation into a dynamic need from the development of enterprises themselves and finally achieve the ideal state of deep integration of production and education remains to be considered.

B. *Teaching quality monitoring system needs to be improved*

After new curriculum reform, the teaching quality monitoring system also needs to be adjusted to match the new curriculum system and keep in line with the new teaching methods. Not only the quality standard of personnel training needs further exploration, but also the monitoring and feedback system needs to be improved and optimized to achieve the synchronous improvement of teaching quality. Even if some schools have formulated management system and quality standards, there are many problems in the implementation process. Taking graduation practice for example, many college students practice for one year, how to effectively manage students' practice, especially decentralized practice? How to stipulate the responsibilities of university and enterprise

instructors? How to evaluate the effect of practice? These problems have not been well solved. Lacking quality assurance system and the evaluation system have result in the disorder of the school-enterprise cooperation in most universities, let alone the quality assurance.

C. *Student assessment and evaluation system needs further exploration*

In view of the reformed curriculum system, the assessment and evaluation system for students' performance in the first and second classes is still being explored. Diversified assessment methods need to be further studied and practiced in order to realize the quality evaluation of the theory and practice teaching of the core curriculum at different stages and levels. In the evaluation of students' learning, it is obviously reasonable to establish a trinity evaluation system of knowledge, ability and quality. The traditional method of checking and determining the results only by the final drawings. In the actual process, teachers should consider not only the project results assessment, but also the project process assessment. For example, the results of investigation and analysis, drawings design, attendance rate, drawings quality, drawings depth, time concept and oral reporting ability are all included in the assessment scope, reflecting the specific assessment of basic professional competence. Of course, this approach still needs to be further tested.

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REFERENCES

- [1] Zhao Yinquan, He Yunxiao, Cheng Xinqi, Guo Ying, Han Zhoulin, "An exploration into the education mode for the landscape architecture of Mianyang normal university" J. Journal of Mianyang Normal University, 2008, 27 (11): 148-151.
- [2] Bi Yifei, Yan Hui, Chen Qian, "A preliminary study on undergraduate education of landscape architecture specialty in local colleges" J. Curriculum Education Research, 2013 (25): 222-223.
- [3] Yan Hui, Bi Yifei, Zhao Putian, Xie Dandan and Zhu Yahong, "Construction of modular teaching system for landscape architecture major in local undergraduate colleges" J. University Education, 2013 (14): 100-101.
- [4] Wang Pinghu, Huang Yun. "Construction and exploration of characteristic teaching system for landscape architecture specialty in art colleges" J. Art Education, 2017 (21): 232-235.
- [5] Zhang Yangshan, "A study on the educational characteristics of new landscape architecture specialty in local normal universities" J. Journal of Inner Mongolia Agricultural University (Social Science Edition), 2012, 14 (6): 110-112.
- [6] Zhao Liyan, Wang Dianbei and Li Guoyuan., "The application research based on project teaching method in the course of landscape architecture planning and design" J. China Science and Technology Information, 2011 (11): 214-215.
- [7] Wang Hao, Su Tongxiang, Zhao Bing, "Accumulation into surface, expanding surface, and strengthening the core—the innovative building of the teaching system of landscape planning and design of Nanjing forestry university" J. Chinese Landscape Architecture, 2008 (1): 16-19.

- [8] Li Xiaohe, Que Chenxi, Yan Chen, Yu Yun, "Research on teaching reform of landscape planning and design based on KAS" J. Journal of Shaoguan University, 2016, 37 (2): 80-84.
- [9] Li Ruidong, Jin Yunfeng, Shen Jie, Li Tao, "Research on teaching reform of undergraduate course design of landscape architecture specialty under "Sharing Platform" J. Landscape Architecture, 2018 (1): 118-122.
- [10] Wang Like. "Discussion on the teaching reform of landscape planning and design course based on the training of applied talents" J. Modern Agricultural Science and Technology, 2015 (7): 343-347.
- [11] Cao Dan. "From "school-enterprise cooperation" to "integration of industry and education" — puzzlement and reflection on promoting deep integration of production and education in applied undergraduate colleges and universities" J. Tianzhong Journal, 2015, 30 (1): 133-138
- [12] Adri V. D. B., Bruns D., "Strategies for Enhancing Landscape Architecture Research" J. Landscape Research, 2014, 39(1):7-20.
- [13] Sarah E. Dooling, "novel landscapes: challenges and opportunities for educating future ecological designers and restoration practitioners" J. Ecological Restoration.2015, Vol.33(No.1) :96-110