Exploration on the Teaching Reform of Environmental Design Practical Course based on College-local Cooperation Mode

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Abstract: The development of society puts forward the demand for versatile and innovative professionals. The course construction and talent training in application-oriented universities should reflect the function of social services, and attention should be paid to the cultivation of innovative ability and practical skills of undergraduates, therefore to better meet the requirements of social and industry development. Environmental design practical courses play vital positions during the teaching process, and the course construction should meet the needs of social and markets, explore teaching reform actively, promote benign development of practical course, enhance the quality of talent fostering. This study takes the environmental design practical course in Shanghai International Studies University as an example to analyze the existing problems in the current practical teaching process. It suggests the construction strategies of the practical course system under the premise of college-local cooperation, and hope to provide certain reference value for environmental design practical course construction.

Key Words: Environmental Design; Practical Course; College-local Cooperation; Teaching Reform

1. Background

With the progress of society and technology, more and more companies require employees to have innovative and practical ability [1], graduation equals to employment, and after graduation, they can set up their new business. While nowadays, the talent cultivation in the major of environmental design in application-oriented universities have several problems, such as weak innovation and professional practice abilities, which disabled the undergraduates adapt to society and market efficiently. Startup business is a kind of open, inclusive and highly relevant ecological system that integrates society, government, colleges and enterprises [2], it's impossible to success only rely on the course construction in universities, which means universities, government and enterprises need to work together to meet the challenges of talent demand in the progress of social development [3]. College-local cooperation mode is an important point as well as development way for local application-oriented universities to carry out course construction and talent cultivation. On the one hand, the discipline construction of universities can improve characteristics, cultivate advantageous disciplines, foster innovative and entrepreneurial talents, establish a sense of serving local economy and society according to the regional economic and social development [4]. On the other hand, college-local cooperation can also provide cultural, scientific and technological supports, improve local economic and social development, and finally form a win-win consequence.

"Practice not only creates material conditions for the development of human beings, but also has a special educational effect, which can reshape people's thinking and optimize the objective educational function, therefore, active the educational function of practical activities is the only way to lead young generation to grow up [5]. Environmental design is a highly application-oriented discipline, and practical course can not only make undergraduates to better command knowledge and speciality, improve the way of thinking, but also be an important method of improving independence, cooperation, innovation and comprehensive abilities. Hence, practical course occupies an important position in the whole discipline education system.

Under the rapid development of the society, universities should pay attention to the practical course construction, and explore unknow based on reality to truly foster undergraduates' ability of innovation and entrepreneurship, and meet the needs of society for complex and innovative talents.

2. Overview of Environmental Design Practical Course

This study takes the environmental design subject in Xianda College of Economics and Humanities, Shanghai International Studies University as an example to carry out practical course construction and reform exploration, and provides certain value for similar design majors in application-oriented university. Xianda college is located in the eastern part of Chongming Island, Shanghai, as a regional university, Xianda college is responsible for the talent cultivation for regional development and construction. Environmental design is a featured subject of Xianda college, since the establishment of this subject, it has been committed to cultivating versatile professionals with international vision based on the actual needs of environmental design construction and serving the local development. At present, under the background of regional construction, environmental design subjects are exploring the full use of local resources and build-up a college-local cooperation mechanism actively, hoping to promote the development of speciality construction and cultivate innovative talents to meet the social needs.

3. Main Problems during the Teaching of Environmental Design Practical Course

3.1 Course Design is Hard to Meet the Needs of Serving Society

The development of science and technology has brought out new challenges and opportunities to contemporary education, keeping up with the construction needs is the basis for the talents fostering of environmental design subject. However, from the current situation, practical course is mainly based on the classroom teaching method, which lacks organic connection with the social development and regional environmental construction. As a result, undergraduates can command basic design knowledge and methods, but can not use speciality knowledge to innovative design and serve regional development effectively, hence a certain gap between the quality of talent cultivation and social needs is occurred.

3.2 Teaching Content is Hard to Meet the Needs of Actual Social Development

Environmental design projects often involve regional planning, ecology, function, users, culture and technology contents, which needs sites and user investigation and analysis, and design proposal need to reflect practicality, comprehensiveness and the diversity of multidiscipline. While the teaching method of environmental design practical course still continues the relative traditional teaching mode, mainly rely on classroom teaching, and use "tutor-lecture + student-practice" way. The practical content is only a reflection of the theoretical teaching textbooks, which does not follow the current environmental design market closely, and does not deeply study the project background, user needs, cultural characteristics and other resources, lacks the project analysis, collation, induction and creativity. Undergraduates during this course are just complete the assignments passively, can not practice their abilities effectively [6], therefore their speciality cannot be better improved.

3. Weak Innovation Ability of environmental Design Talens

At present, during the practical course teaching, practical projects are often carried out by tutors or case studies, when undergraduates are doing the projects, on the one hand, the less understanding of surrounding conditions, cultural characteristics, developing inheritance of the projects causes problems like unclear user positioning and insufficient design implementability. On the other hand, because of insufficient prophase investigation and weak exploration of regional resources and user requirements, design proposals are likely to have problems such as close affinities between proposals, low practical value, less innovation, which also affects the cultivation of talent innovation.

4. Principles of Practical Course Construction under College-local Cooperation Mode

4.1 Under the Orientation of Serving Society

At the beginning of the 20th century, Charles Richard Van Hise, president of the University of Wisconsin-Madison, proposed that universities should play the function of social services and promote the social-economic development actively [7]. Therefore, the university's social service function has been widely recognized throughout the world. Only when the discipline construction and talent cultivation of local universities are fully reflected the orientation of serving society, problems like in-classroom course teaching alone and lags behind the social development can be truly solved. Practical course of environmental design has the natural advantages and conditions of serving the society, by the guidance of practical projects which serves regional environmental construction, the developing trend of enterprises and industry can be understand, so that undergraduates can hance the modern design technology and serve the development of regional construction, which can reflect the function of talent cultivation.

4.2 Under the Orientation of Capacity Cultivation

Dewey put forward the view that “school is society” in terms of vocational education, believing that education and enterprises should unite together to foster talents for society, and should strengthen the practical skills under the concept of “learning in doing” [8]. The ultimate purpose of the practical course construction of environmental design subject is to enable undergraduates to truly combine theory with practice, apply the theoretical knowledge they learned to design and creation process, and cultivate the ability to solve practical problems. Therefore, course design should base on serving the local, and combine projects related to regional environmental construction with pratical course, guide undergraduates to pay attention to on-site investigation and analysis, think about detail problems like technology, construction and budget. By knowing real problems, leading undergraduates to give full play to their subjective initiative and actively carry out design exploration, then speciality can be developed. At the same time, by the build-up of group activities and collaborations, undergraduates’ teamwork ability can be improved and the cooperation and contribution spirit can be fostered, which truly encourages undergraduates’ integrated abilities.

4.3 Under the Orientation of collaborative construction

Environmental design practical projects usually involve aspects like regional construction, economic development, urban planning, architecture, structure and aesthetics, thus collaborative research mode of practical course should be established to change the teaching content from a single art design expression to a comprehensive full-process practical design project [9]. Practical course are guided by regional construction, closely integrated with the requirements of the society, and supported by the comprehensive application which can enhance the discipline characteristics and better foster practical and applied talent training, reflect the competitiveness of talents. For example, Xianda College of Economics and Humanities, Shanghai International Studies University is located in Chongming District, Shanghai, under the background of world-class ecological island construction, the environmental construction of villages and towns is in the process of continuous optimization. Through the participation in regional construction, regional environmental construction can be better served by technical methods, as well as practice enables undergraduates to gain design self-confidence and pride, thus foster their sense of social responsibility and contribution, then establish a correct design concept and value.

5. Strategies of Environmental Design Practical Course Construction

In the construction of practical course, a practical teaching system that combines serving regional development and course teaching will be established, the ultimate goal is to truly reflect the function of universities serving society and cultivating talents for social development. Therefore, course construction should pay attention on to the combination of “serving regional development and construction” and “student-centered”. During the teaching process, tutors should take regional construction as the source to guide

undergraduates to take part in environmental design projects actively, start from actual needs, make practical course useful, and reflect the purpose that undergraduates can utilize knowledge to serve regional construction.

5.1 Guided by Serving the Society, Build a Comprehensive Practical Teaching Mechanism

Practical course construction under college-local cooperation mode is the process of serve regional construction, as well as the process of educational development, a multi-faceted comprehensive mechanism of government-enterprise-college should be build up. First of all, the purpose of course construction is to meet social needs, through a set of well planned and completed teaching models to cultivate undergraduates' hands-on ability and operational skills, improve their awareness of social services, so that classroom-teaching and practical-teaching can be social-oriented, enterprise-oriented and market-oriented [10]. Secondly, practical course is combined with the regional spatial form, by intervening real project design and the combination mode of course teaching and design practice, real scene teaching method can be developed. Thirdly, through the project investigation, analysis, design, production and presentation in teaching process, undergraduates' awareness of pay attention to social development, innovative thinking and integrated abilities can be cultivated. Finally, when the course is completed, activities such as "Design practice results exhibition" and "project practice exploration seminar" can be held to strengthen the communications between colleges and local area. Well-finished design works can bring proposals and ideas to regional construction, as well as benefit local government and enterprises to carry out environmental construction.

5.2 Guided by Enhancing Practical Skills, Rebuild Course Teaching Mode

At the beginning of practical course, undergraduates need to have an in-depth understanding of the relevant requirements of the design project, by conducting site surveys, field measurements and user interviews, questionnaires and other methods to understand users. Villagers and other project subjects are invited to do communications during design process, and design exhibition will be planned after design process and then design presentations can be held, university tutors, enterprise tutors and users will jointly evaluate the final design work. Through the design of syllabus format, teaching proposal and teaching process, give full play to undergraduates' subjective initiative, cultivate their ability of independence thinking, design exploration, analyzing and solving problems. Design projects can provide real values to regional construction, enhance undergraduates' design self-confidence and further cultivate their service awareness and innovation abilities.

5.3 Establish a Diversified Assessment System to Stimulate Undergraduates' Enthusiasm for Learning

Under the background of college-local cooperation and industry-college integration, universities should continuously update the evaluation standards for talents under the combination of social requirements and industry development. Practical course in environmental design subject involves a great amount of information, and pay more attention to the cultivation of their ability to use speciality to know and solve problems during the teaching process. The assessment should consider the cultivation of undergraduates' ability and quality as the starting point, emphasis the combination of process assessment and final assessment, establish a course assessment which is covering the whole process of assessment, the method is scientific and diversified [11], harness the positive role of assessment and then better stimulate undergraduates' enthusiasm of learning.

5.4 Harness Undergraduates' Autonomous Thinking and Improve Teaching Quality

In the past, in environmental design practical course it is easy to see problems such as undergraduates pay extra attention to skills performance, while less innovation and low using values. Through the colleges-local cooperation, according to the market and enterprises employment needs as the starting point for talent training, so that undergraduates can carry out the whole project workflow by themselves which can enhance their innovative

ability and quality, lay the foundation of the their employability. The construction of practical course is based on serving the local area, combining regional space design projects with practical course, conducting full investigation and analysis towards sites and users as the foundation and then explore solutions for design. Training undergraduates' comprehensive abilities like the combination of theory and practice, problem finding and solving abilities during teaching process. At the same time, through group activities and collaborations during practical course process, undergraduates' teamwork ability can be enhanced and the cooperation and contribution spirit can be trained.

5.5 Teaching Exploration of Teaching Practice based on Industry-college-research Integration Mode

From the perspective of environmental design talents training, by the build-up of college-local integrated practical course, research and exploration of industry-college-research integrated mode can be carried out purposefully. In the progress of college-local integration, by the means of questionnaires, interviews and in-class communications, the existing or emerging problems can be understand, the teaching adjustment and revision towards certain problems can be carried out afterwards. Teaching summary and analysis can be carried out when the course is completed, to explore the practical course construction from micro aspects. After a series of course practical exploration, the practical course teaching rules will be summarized and then build a student-centered teaching design, teaching method and assessment mechanism aiming at their psychological and physiological characteristics, so that can better foster their independent learning, innovative spirit and teamwork quality, therefore improve teaching quality effectively.

5.6 Regional Construction Collaborates with Practical Course, Create Collaborative Results

Through college-local integration to conduct practical course construction, tutors and undergraduates can fully investigate and analyze the rural environment, public spaces, residential houses, homestay places and markets and other projects in Chongming District, understand users' needs and the shortages of rural environmental construction, thus come out with reasonable and effective design methods and strategies, jointly promote regional economic, social development and environmental optimization. For another thing, the summarized and collated documents of college-local integrated projects, using modern internet platform to conduct project file packages and excellent course construction, provides reference materials to self-study and understand regional conditions for undergraduates. Through continuous collaboration, expansion and project development, finally achieve the co-developing situation of in-class teaching and regional construction, which reflects the collaborative results.

5. Conclusion

The exploration of the teaching mode of environmental design practical course under the perspective of college-local collaboration, which not only help undergraduates to apply what they have learned before to real projects, to explore, protect and create according to regional culture by the means of design, and then promote rural revitalization development, but also train undergraduates the awareness of combining theory with practice, serving local social development based on local economic and cultural construction. Through college-local integration, refine the course construction of environmental design subject, carry out the reform and renewal of practical course teaching system, and better cultivate those environmental design talents who can well-adapted to social developing requirements, and the reflect the function of university serving the society.

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