Exploration and Practice of Excellent Course Construction in Application-Oriented University--- A Case Study of Shanghai Excellent Course “Landscape Design”

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Abstract: Based on characteristics of application-oriented undergraduate education, the concepts of excellent course construction were analyzed. Taking Landscape Design as the example, the strategy of course construction in application-oriented university was discussed from the following aspects: setting target accurately, arranging contents reasonably, innovating practical teaching mode, optimizing teaching methods and perfecting the evaluation system. This can provide reference for the construction of excellent courses of relevant majors in similar colleges and universities.

1. Introduction

The target of the application-oriented university is to develop the talents with creative thinking and abilities so that they can fulfill the society needs and contribute to the local economy growth. Excellent courses are important way to realize this target. The excellent course was the course which reaches the first-rate level in contents, methods, teaching staff, evaluation and management. Therefore, it is a good demonstration of the specialty for the major and university as well as improving the teaching quality. In this paper, how to construct the excellent course with unique feature for the application-oriented universities was investigated through the practice of the Shanghai excellent course – Landscape Design.

2. The Concept of Constructing the Excellent Course for Application-Oriented University

First of all, the application-oriented universities are one of the important components in the vocational education system of China, through which millions of senior technical application talents were developed who worked at the front-line and solve the practical problems. This determined that the work-integrated learning course which united the theory and practice should be the mainstream and key character.

Second, the teaching target of the application-oriented university was focused on developing the capability of the students to apply the skills and solve problems. So the core was to keep student-centered. Therefore, the learning theories such as behaviorism, constructivism and situated learning, should be actively applied to guide the course construction and stimulate the students to actively get involved in the course. Then, they will keep learning by doing and build up their own knowledge system and ability system to fulfill the position needs quickly in future.

In the third, it was to comply with the transitional development and education reform of Chinese higher education system under current internet age. Therefore, during the course construction, modern technologies should be more applied in teaching procedure, which can bring breakthrough to the traditional classroom teaching mode and enhance the effect.
3. The Strategy of Course Construction of Application-Oriented Universities

3.1 Setting teaching objective accurately – the basis of construction of excellent course

The teaching objective was directly related to the direction, the form and the standards of a series teaching activities, such as the contents, the arrangement, the method and the evaluation. It was the basis of the excellent course. The objective of the excellent course had to be coordinate with the position and effect in the talent’s development plan. It also had to be integrated with the basic needs of the future employment to the knowledge system and abilities.

The talent development target of Environment Design in Sanda University was to develop the designer assistant for landscape and interior design facilities. Landscape Design was a core professional course and played a decision role in realizing the talent development plan of Environment Design. Therefore, the teaching objective had to be focus on the developing the core professional quality and abilities. According to the industrial survey and considering the practical conditions, such as the academic ability, employment orientation and market demand, the detailed teaching objective of Landscape Design was set from three levels, i.e., professional knowledge, professional ability and professionalism, and shown in Fig.1.

![Fig.1 The Framework of Teaching Objective](image)

3.2 Arrange the content reasonably – the core of construction of excellent course

Application-oriented talent should have knowledge in wide range as well as specialties and skills. It was a versatile person with specialty. Therefore, the content arrangement of the Excellent Course had to balance the relationship between the theory and practice, including the depth of the theoretical knowledge, the difficulty of the practice, the percentage of the time between theory and practice as well as the progress. Also, the content had to keep pace with the industry development, i.e., keep updating the latest research work and results to the students to stimulate their interest and enthusiasm. At the same time, the national professional qualification standards and the demand of posts had to be merged into the content naturally to help the students to acquire the professional certification and smoothly adapt to the post.

During the construction of the excellent course – Landscape Design, the content was focused on the theory and practice of landscape design of medium and small scale urban space according to the overall developing objectives. The total class hour was 128h and 1/3 of it was theoretical teaching. As teaching the original and development of landscape, design theory and method, the new ideas, new technologies, new materials, new methods and new examples were introduced. The real business projects and competition projects were taken as practice programs so that the students were trained with clear targets. So the theoretical and practice course were organically combined to help the student to enhance their thinking and expression abilities.
3.3 Innovating practical teaching mode – unique feature of construction of excellent course

Practical teaching was an important way to develop application-oriented talents as well as the unique feature of the course. The practical teaching of the application-oriented undergraduate excellent course should be the one which depended on deep school-enterprise collaboration and ran through the whole procedure. The teaching activities were directed by the future post needs. The thinking ability and skill set of the students to apply the theory and method to solve the real problems were developed through multiple methods, such as situational teaching, project teaching and case study, etc. Regarding to the construction of practical teaching, the inner training platform and exterior practice base were continuously being improved. At same time, the teaching stuff team was continuously strengthened so that the practical training conditions were kept optimizing.

During the Landscape Design course construction procedure, the practice teaching mode, which followed the principle of “Task Transition + Problem-Oriented + College-Enterprise Collaboration”, was created. The traditional teaching mode, i.e. theory first and practice second, was changed. The whole procedure was driven by design project and it ran through the whole procedure. Following the cognitive rule to landscape design, the teaching framework was constructed with the matrix consisted of “Problem Setting--Task Transition--Theoretical Teaching-Practice Results” (Fig.2). The theory knowledge was separated into each segment and the students actively applied these knowledge and methods to solve real problems in each step.

![Fig.2 The Practice Teaching Framework](image)

The teaching stuff team, which were made up of college professors, design directors in enterprise and senior engineers, drawn up the precise teaching plan, schedule and division. The professors were in charge of the progress of the whole course, the theory explanation, the example analysis and design coach. The enterprise expertise, the design director and the senior engineers, got involved in the example teaching at the beginning of the course, shared experience in project design and engineering technologies at the middle of the course and introduced the software skills and drawing specifications at the end of the course. The whole team evaluated the results of students together. Through this practical teaching mode, the practical working capabilities and professionalism of students, including field investigation, data collection and analysis, scheme design and expression, presentation and teamwork ability were developed and enhanced, which build a solid foundation for their future employment.
3.4 Optimizing teaching methods – necessary condition of construction of excellent course

As entering the mobile internet age, benefited from the social media, such as information and interaction technologies, MOOC, etc., classroom was no longer the only way that students to acquire knowledge and information. The role of the teacher had changed from the unique disseminator of knowledge to the guide of learning. Therefore, the concepts of the excellent course had to be transferred from the traditional one-way instillation to inspiration. The role of cognitive agent should be emphasized in the teaching method. The modern education and internet technologies should be made full use of to accomplish the goals, such like building up mobile internet studying platform, widening the resource and boundary, providing diversified experience, strengthening interaction between teachers and students.

Based on comprehensively analyzed the nature of the course, the content, the objective, the foundation and capabilities of the students, the teaching stuff team of Landscape Design took the theory and practice teaching synchronized and multiple teaching methods were flexibly applied to help the students to create their knowledge system actively, such like case study, project-based teaching, heuristic method, participatory method, etc. The internet platforms, such as course website, cloud classroom and WeChat group, etc., had been widely applied to upload the syllabus, the progress chart, the lesson plan, the courseware and the exercise book as well as exhibit the students’ works of excellence. The resources, such like reference books, articles, courses, professional websites and WeChat Public Numbers, were recommended to students synchronized with the teaching progress. The platforms were also helped to interact with students in real-time. The teaching contents and pace were adjusted in time according to the difficulties and requests of students collected through these platforms so that the teaching efficiency and results were improved.

3.5 Perfecting evaluation system – key of construction of Excellent Course

Evaluation of the students was an important basis to judge the effect of teaching as well as an important thing to reflect the education equity. In the construction of the excellent course in application-oriented undergraduate universities, an objective, diversified and proper quantified evaluation system should be established according to the course nature, teaching objective and form of achievement. First, objective, clear and workable evaluation standards had to be established. Then, these standards should be integrated into the content and skill training. At last, not only the results but also the procedure should be paid attention to. Also, the openness and justice of the evaluation had to be well balanced.

The evaluation system which combined procedure and results evaluation had been established in the Landscape Design course construction. At the end of the course, the students had to submit not only the finished design work, but also the design portfolio, i.e. the whole package of recorders, such as information collection, materials organization, investigation and survey, case study, the idea sketch, interactive discussion and results display. The portfolio was 40% weight in the whole evaluation record. The procedure evaluation investigated the planning and coordinating capabilities of the students as well as effectively kept the originality of their design and avoid plagiarism.

At the review of the final work of course design, open evaluation and defense of the whole grade was carried out. The evaluation group was formed based on teaching group. Besides the faculty adviser (group), the judges were also including other teachers and enterprise supervisors. All the students(groups) were provided with equal opportunities to demonstrate their work and creativity through interactions with the judges. This interaction helped students to promote their strong points and improve their inadequacies in the future work. This helped to avoid unilateral evaluation from the faculty adviser from a certain extent and be more objective and diversified. It also helped to motivate the students’ sense of honor, create professional atmosphere and improve the communication and learning between each other.

4. Effect of Construction of Excellent Course – Landscape Design

After exploration and practice for years, significant results had been achieved for the construction
of Landscape Design and its distinctive features had been formed.

In the past three years, the teaching group had achieved outstanding results, including accomplished one Shanghai undergraduate major teaching reform project, two Shanghai excellent courses, two Shanghai key courses and published 8 journal papers. Published 5 teaching materials, such as Introduction to Environment Art and Design, Appreciation of Landscape, Environment Design Hand-Painted Techniques, Appreciation of Chinese and Foreign Architecture. The students had won more than 10 prizes in the competition and exhibition in local and national level. The students were also well recognized by the design enterprise.

5. Summary

The main task of application-oriented university was to develop the application-oriented talents for local economy and society, which was realized through the construction of each coursed. As the example in the whole courses system, construction of the excellent course had to be better integrated with the development of local economy and society. In order to achieve this final task, special attention had to be paid to the following aspects: establishing the excellent double-division teaching group i.e., professor plus designer, paying close attention to the trend of industry development and needs of talents, simplifying and advancing with times of the teaching content, keeping reforming of the teaching methods and system, strengthening the college-enterprise collaboration and building the practice environment as real as possible. All the efforts mentioned above would help the student to effectively transfer the theoretical knowledge to their practical capability and become the recognized application-oriented talents.

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