

A Preliminary Study of the Reform of the Course of Modular Landscape Design Based on Knowledge

Jia Rong

Xi'an Fanyi University, Shaanxi, China, 701015

Keywords: Knowledge Modularity; Design; Curriculum; Reform

Abstract: Traditional teaching methods are generally one-way. In simple terms, they are from the study of theoretical knowledge to the use of practical skills. For a long time, this method has occupied the dominant position in education and teaching in China. With the innovation of educational teaching research theory and the verification of relevant foreign teaching practices, the modular teaching system has gradually stepped onto the historical stage. This paper briefly expounds the relevant theories and combines the landscape design curriculum to give the content and implementation methods of the curriculum reform.

With the development of society, people's requirements for quality of life are constantly improving. Landscape art, which is an important part of the environment, has received more and more attention. As the main front for cultivating high-quality talents for China's modernization, colleges and universities have gradually attached importance to the cultivation of landscape talents. China started late in the cultivation of professional landscape design talents. After these years of development, especially during the period after the reform and opening up, very good results have been achieved in many fields. However, we must also see the shortcomings and defects while focusing on the achievements. The author has been engaged in education and teaching of related majors for many years. According to the author's viewpoint, there is still a big gap between China's landscape design courses and foreign developed countries.

1. Defects in the Teaching of Landscape Design Course

At present, many colleges and universities in China have opened landscape design courses, but overall, the effect of education and teaching is not satisfactory. We often divide colleges into two types: research-oriented ones and application-oriented ones. These two types of colleges have obvious differences in the course development. Scientific research-oriented universities attach importance to the study and research of theoretical knowledge. The direction of landscape design is mainly based on various theoretical courses, and the establishment of applied courses is obviously insufficient. Application-oriented universities are just the opposite. They pay more attention to cultivating students' practical ability, and the lectures of theoretical courses are greatly reduced due to the limited teaching time. To a certain extent, this has led to the lack of students' knowledge system, which is not conducive to their later development and improvement.

For a long time, the problem of backward education and teaching methods in China has been criticized by the education sector. With the development of information technology, the current

education and teaching hardware construction has been significantly improved compared with the previous ones, but in terms of software, such as education and teaching concepts, there is still a long way to go compared with that in developed countries. I think that among the many factors that hinder the development of the teaching of landscape design courses, the first point is the obsolescence of educational teaching concepts. In response to this problem, many educators have conducted in-depth research and bold attempts to reverse the development of China's landscape design profession in a short period of time. In terms of their effectiveness, it is very encouraging in many ways. The reform of landscape design curriculum based on knowledge modularization is proposed on the basis of practice and applied to teaching practice by some universities.

2. Knowledge Modularity

The concept of knowledge modularity has long been proposed. The so-called knowledge modularization, as the name suggests, is to classify similar knowledge in a modular form, to coordinate it in a modular form, and to apply it in a modular form. Here, we regard the whole teaching process as a system, and the curriculum is the core of this system. The modular knowledge is the material content of the entire core.

In the traditional teaching philosophy, the acceptance and understanding of knowledge is a flat process. For example, if we want to learn one thing, then we must first understand the concept of this thing, and then through theoretical study, we will gradually have a perceptual understanding of this thing. Finally, we will improve the rational perception of things through practice. From this we can see that this learning process has been artificially set up as a one-way, tightly connected system. But a modular knowledge architecture breaks this tradition. Under the modular knowledge structure, modular knowledge itself becomes a relatively independent system that can be accessed at any time during the education and teaching process. As long as we prepare well in the early stage, the modular knowledge can seamlessly connect into the classroom and extracurricular teaching.

Of course, modular knowledge building can be successful arbitrarily. In the process of modularizing knowledge, we need to have a clear and in-depth understanding of the curriculum system of education and teaching. Next, we need to divide the general knowledge range according to the needs of the curriculum, and sublimate, refine and process related knowledge within the scope. The relevant knowledge will be built into different knowledge modules according to the teaching content and teaching progress, etc., in preparation for the class.

In the process of building the knowledge module, we should pay attention to a problem: in the traditional education and teaching, the teacher is in a dominant position, and the students are generally passive in the learning process. Therefore, no matter whether it is in the selection of teaching materials or in the implementation of education and teaching, students rarely have a sense of participation, which is a long-standing disadvantage. To break this model, we must let students participate in the building of knowledge modules, give full play to their enthusiasm and initiative, and improve their ability to refine knowledge and integrate knowledge. At the same time, in this process, students can select and screen knowledge according to their own preferences as well as their own development needs.

Modular knowledge is similar to a knowledge element. To truly play a role in education and teaching, it must be combined with a certain curriculum system. For example, we can combine knowledge modules and micro-courses, open-ended topics, and MOOCs, and select the corresponding knowledge modules according to different teaching methods.

The criteria for the division of knowledge modules can be broad or refined, depending on the needs of the course, depending on the content of the course. From the current implementation at colleges and universities, the construction of refined knowledge modules makes it easier to achieve

educational goals. Of course, we are not saying that the finer the better, the more subtle division of knowledge modules is easy to cut off the internal links between knowledge points, and everything can only be guided by the practical application of teaching.

3. Landscape Design Curriculum Concept based on Knowledge Modularization

Nowadays, with the economic and social development, the practice of landscape architecture has developed very rapidly in recent years. The design theories, methods and means of landscape architecture planning are in a period of rapid change. For the development of landscape architecture major, this is both an opportunity and a challenge. The opportunities are self-evident and the challenges are obvious. The society's requirements for high-quality landscape garden professionals are constantly improving. To become a cooperative practitioner, we must cope with such demands and challenges. In addition to having professional knowledge, we must have a good independent research ability and innovative thinking ability, which has become the trend of the times.

How to effectively consolidate the theoretical basis of landscape architecture students, enhance their understanding of knowledge, and effectively forge the practical application ability of their knowledge, which is a realistic problem that needs to be solved in front of every landscape gardening professional teacher. This problem is not only an education issue, but also a social issue. Its solution requires the joint efforts of the whole society.

At present, seminars combining knowledge and modularity are very popular at home and abroad. The seminar was applied earlier in the field of landscape architecture teaching in Europe and America. After years of continuous improvement and development, a seminar system has been gradually formed, including freshman seminars, special seminars, case seminars, and reading seminars. In China, certain achievements have also been made in the application of seminars. Many schools have set out seminars with school and professional characteristics based on the actual situation of the school and the needs of the curriculum.

Over the years, the author has conducted some research on landscape architecture seminars and other forms of courses based on open topic integration knowledge modules at home and abroad. According to the author's research, the modularization of garden design based on knowledge is the general trend of education and teaching reform in the direction of garden design.

To build a curriculum system based on knowledge modular garden design, we should focus on the following aspects:

3.1 Emancipate the mind and be brave in practice

Knowledge comes from practice and ultimately should be practiced. The reform of a course is first and foremost a reform of our thinking. In the process of constructing a curriculum system based on knowledge modular garden design, we must first dare to emancipate our minds, be brave enough to act, not afraid of failures and setbacks, and be good at breaking the shackles of traditional ideological barriers. For the advanced education and teaching concepts abroad, we must adhere to the scientific attitude of criticism and compatibility, transformation and absorption. We should not be afraid of the straits and succumb to ourselves, fearing that resistance and problems will arise during the reform process.

3.2 Strengthen organizational implementation

Regardless of the type of curriculum, organizational implementation is the most critical aspect. Whether it is open topic discussion or micro-course, or MOOC, it is difficult to achieve the expected teaching effect in education and teaching without good organization. I have contacted

many teachers in landscape design, and they have some misunderstandings about the organization and implementation of specific education and teaching. For example, let's take the example of a landscape architecture professional seminar with an open topic integration knowledge module. Many teachers believe that the landscape garden professional seminars of the open topic integration knowledge module should be fully handed over to students, thinking that the main target of this open-ended research is students, teachers should not intervene in the curriculum. This kind of thinking is very wrong. The purpose of any course is to achieve certain teaching goals. The landscape-based professional seminars of the open topic integration knowledge module are characterized by open discussions. This is understandable, but this does not mean that the role of teachers can be weakened. On the contrary, I think that in many respects, higher requirements are proposed for teachers. The teacher's control over the curriculum should be changed from tangible to intangible. It is like an invisible hand behind to constantly adjust the content and progress of the seminar, and lead the students' thinking.

3.3 Focus on the connection between knowledge

Compared with the traditional education and teaching, the independence of knowledge under the condition of knowledge modularization has been greatly improved, which creates conditions for different knowledge modules to combine different courses. But at the same time, we should also see that after the modularization of knowledge, especially after refinement, we are more important to study and teach the relevance of different knowledge modules. The modular design of knowledge is not intended to break the close connection between knowledge systems, which is often overlooked.

3.4 Focus on the role of inspiration in teaching

Inspiring students and guiding students is the responsibility of each teacher. Under the condition of knowledge modularization, the teaching modes that students are exposed to are rich and varied, and the participation of students in education and teaching has been greatly improved. In many cases, the teacher's way of teaching of student knowledge is no longer as focused as before, and teachers are more focused on inspiration and guidance. How to inspire and guide is an issue that should be considered at the beginning of the curriculum design. Good at inspiring and guiding the teacher to consider the important criteria for each teacher's competence. How the results of inspiration and guidance are the ultimate yardstick for judging the success of teachers and courses. Today, we advocate quality education to improve students' comprehensive quality and enhance students' self-improvement and self-improvement ability. Inspiring plays a vital role in student learning and later development.

3.5 Establish and improve the corresponding assessment mechanism

In order to smoothly promote and implement the reform of the knowledge-based modular garden design curriculum, a scientific and objective assessment mechanism is indispensable. The assessment mechanism can influence the progress of curriculum reform and even affect the success or failure of curriculum reform. At the beginning of the implementation of the knowledge-based modular garden design curriculum reform, we should start to establish a matching assessment mechanism. This assessment mechanism should highlight two characteristics, namely, fast and complete. Fast means that this assessment mechanism is easy to quantify, easy to remove and intuitively like the results we have achieved in the curriculum reform, and can clearly reflect the problem. Completeness refers to complete assessment and means. Our evaluation of curriculum reform can not only focus on one-sided effects, but should adhere to the standard of being

comprehensive and in-depth. Finally, the results of the assessment should be announced in a timely manner, so that teachers and students can understand the problems in the current curriculum system, brainstorm ideas, improve innovation. And it allows teachers and students to participate extensively, and jointly contribute to the reform of the modularized garden design curriculum based on knowledge.

Acknowledgement

Source: Xi'an FanYi University 2018 Education and Teaching Reform Project "Research on the Reform of Garden Design Curriculum Based on Knowledge Modularization", Topic No: J18A05, Key Projects.

References

- [1] Lv Yichao. *Thoughts on the Teaching Reform of Landscape Design Courses [J]. Science and Technology Information*, 2011, 10 (04):78-80.
- [2] Pan Dong-mei, Feng Tao. *Reform and Practice of Higher Vocational Landscape Planning and Design Course Based on Action-oriented Teaching Model[J]. Journal of Tangshan Vocational and Technical College*, 2010, 9 (04):143-150.
- [3] Li Shaobo. *Study on the Reform of Computer Aided Design Course in Garden [J]. Agricultural Science and Information*, 2010, 22(4):144-145.
- [4] Yang Yunxiao. *Study on the Teaching Design of Garden Computer Aided Design Course Based on Work Process Orientation [J]. Chinese Technology*, 2011, 26(8):242.
- [5] Li Hongchang. *Preliminary Study on the Application of Computer Aided Design in the Course Reform of Landscape Architecture [J]. Chinese Technology*, 2015, 26(3):22.
- [6] Wu Wenwen. *Exploration of Teaching Reform Model of Garden Computer Aided Design Course [J]. Science & Technology Information*, 2009, 24(20):235-236.
- [7] Yuan Suqin. *The Method of Using Incentives[J]. Leader Science*, 2004, (12):12-13
- [8] Guo Liexia. *Discussion on Teaching Reform of Landscape Planning and Design Course[J]. China Forestry Education*, 2008, (4):54-56
- [9] Xu Renhua. *Study on the Reform of Practical Teaching Links in Landscape Architecture Planning and Design Course[J]. Chinese Horticultural Digest*, 2012, (7):187-188
- [10] Shang Shuman. *Study on Teaching Reform of Landscape Design Course[J]. Journal of Jilin Province College of Education*, 2010, 36(3):118-119

Jia Rong, female, born in 1984, native of Weinan City, Shaanxi Province. Graduated from Northwest Agricultural and Forestry University with a master's degree. Currently work as a teacher at Xi'an FanYi University, college of Art. Engaged in landscape design and plant landscape research.