Feasibility Analysis of Application of Flipped Classroom in Course of Landscape Design

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Abstract. The emergence of flipping classroom teaching mode has caused many scholars to explore the reform of classroom teaching mode. Starting from the predicament faced by China's “Landscape Design” course, taking the connotation and characteristics of the flipping classroom as the starting point, comparing with the traditional classroom, analyzing its advantages in the “landscape design” course, and discussing the flipping classroom teaching mode as a teacher and the opportunities and challenges that students bring.

Characteristics and Current Difficulties of the Landscape Design Course

The Landscape Design course is a highly integrated applied discipline in urban planning, architecture, horticulture, forestry, design, natural sciences and humanities. It involves not only the science of thinking, but also culture and art; it is based on rational logical reasoning and sensuous artistic cultivation and aesthetic cognition.

The Features of Landscape Design Course

1. The course is practical and applicable. The teaching goal of the Landscape Design course is to cultivate students' practical ability. The opening of this teaching potential is not immediate, but a process of internalization and accumulation of students' knowledge. For students, mastering the concept of a design principle does not mean that the specific project of the actual work can be solved. Therefore, the Landscape Design course is designed to enable students to use relevant design principles and methods to analyze and solve practical problems in their work for the purpose of practical application.

2. The practicality of the learning style. The Landscape Design course must emphasize practice-oriented, guide students to interact, and achieve the integration of knowledge and action. Therefore, teachers should design the relevant activities of the relevant knowledge of the students. According to the teaching content, we need to let the students participate, and using their own practice to test the theory to develop their design ability.

The Dilemma of Landscape Design Course Teaching

1. The course requirements are high, but the teaching time is limited. The landscape design course has many teaching contents, scattered and wide. The course first requires students to have certain basic professional skills, including basic skills such as design sketch, design color and three major components. Secondly, it is familiar with and masters professional drawing software, including flat drawing software and space design drawing software. It is the ability to master and apply landscape design styles and landscape design materials. Finally, it can use hand-drawn or computer-aided software to express design ideas in depth. In the above four areas of professional basic ability, students need to practice through a large amount of time to achieve capacity improvement. These four parts cover 12 courses, even if they are set as professional compulsory courses according to the teaching management requirements, there are only 51 hours of teaching time, and each course topic has only 4 hours, which is difficult to make. Students can improve their ability in the three levels of knowledge, skills and practice in the classroom.

2. Practice teaching projects are out of touch with social needs. Focus of the landscape design course should be on the development of student skills. Therefore, the skills acquired by students
should meet the development needs of social landscape design and be the latest practical skills. However, in the traditional teaching activities, the cultivation of students’ skills is not paid enough attention. The theory teaching replaces the teaching of practical skills. Students have mastered more comprehensive theoretical knowledge, but they do not have the experience of landscape design combined with social practice. At the same time, the practice of landscape design courses is difficult to complete in the classroom. The main performances are as follows: First, classroom teaching is based on theoretical explanations, some students lack interest in learning, and teaching results are not good. Second, some students are difficult in class. Perceive the concept of space and exercise an accurate sense of scale; third, some students lack material knowledge and cannot obtain it from the classroom; fourth, there is a lack of actual combat projects, and some students have little knowledge of the design process.

The Advantage of Flipping the Classroom to Compare with the Traditional Classroom

The flipping class originated from the chemistry class of American chemistry teachers Bergman and Sam in 2007. They recorded the teaching content with the explanation and recorded it as a teaching video and put it on the network for students to learn. In 2011, American scholar Salman Khan proposed the new teaching mode of Flipped Classroom. Students watched the micro-video courses created by teachers and other learning resources after school, and then self-organized or reorganized the knowledge points and returned to the classroom for feedback.

Flipping Classroom

According to the definition given by Flip Learning Network (FLN): “Flip learning is a teaching method that transfers direct teaching from group learning space to individual learning space, thus transforming group learning space into a dynamic and interactive Learning environment, and the teacher guides students to apply concepts and creatively conduct topic learning.” Through the definitions given above, flipping the classroom is a form of teaching in which teachers create videos, students watch before class, face-to-face communication, discussion, answering questions and completing homework in the classroom. We can understand from the following three aspects: First, flipping the classroom can meet the students’ individualized learning ability and methods; second, the support of modern information technology enables the flipping classroom to be realized; third, the teacher must play the organization in the whole activity learning.

The Features of Flipping Classroom

1. The role of the teacher has changed. The teacher is transformed from the original lecturer of knowledge in the traditional classroom, the manager in the classroom to the instructor and facilitator of the learning, from the transmitter of the teaching content to the design developer of the video resource and the provider of the relevant educational resources. Teachers should be proficient in mastering the strategies of learning activities, so the dominant position of teachers is not weakened, but rather strengthened. In the classroom, when students need help with doubts and difficulties, the teacher will provide them with the necessary support.

2. The role of the student has changed. In the personalized learning under the flip classroom teaching mode, students are no longer passive recipients of knowledge, and students are the protagonists of the entire learning process. They can choose their own time/learning place, learning content and learning volume. And in class Through the group study and collaborative learning, the church completes the internalization of the knowledge.

3. The distribution of teaching time has changed. In the teaching mode of flipping the classroom, the teacher puts part of the knowledge taught in the traditional classroom before the classroom teaching, thereby releasing more classroom time, maximizing the limited time, and leaving the students to various forms. Learning activities to extend the time of teaching and learning. The provider of relevant educational resources. Teachers should be proficient in mastering the strategies of learning activities, so the dominant position of teachers is not weakened, but rather strengthened.
In the classroom, when students need help with doubts and difficulties, the teacher will provide them with the necessary support.

**The Advantage of Flipping Classroom Teaching Mode in Landscape Design Course**

The flipping classroom realizes the high integration of online learning and traditional classroom through the knowledge transfer before class and the internalization of classroom knowledge. It breaks through the limitations of previous mixed learning, improves the autonomy of students’ learning, and overcomes the shortcomings of traditional teaching to some extent. Flipping the classroom can effectively solve the problems arising from the teaching process of Landscape Design. The richness and sharing of information resources make students' learning change from single to plural, and make students change from passive learning to active learning, and truly become the master of learning.

1. Teaching students in accordance with their aptitude to solve the problem of individualization of students.

   In the flipping classroom, on the one hand, students can arrange personalized learning progress according to their own learning habits and existing learning knowledge levels, and accept, absorb and understand knowledge according to their own needs. On the other hand, flexible teaching methods provide students with the space to think independently and build their own knowledge systems independently. Students have more time to study and explore problems independently and apply them to their real life.

2. Watching videos before class to improve students' self-learning ability.

   Videos and assignments are usually released and arranged one week before class. Students have enough time to explore and think after they watch the video and can experience and verify it in real life so that they can be targeted to the teacher in the classroom. Problems and doubts, and through the group discussion to learn and think again, further improve the ability of independent learning, and achieve the active learning of students in the true sense.

3. Enrich the classroom situation. One of its important goals is to enable students to recognize individual differences and to achieve internalization of knowledge through the active participation of students. Under the support of modern educational technology and other teaching aids, the communication between teachers and students in the classroom is more flexible and diverse, showing the diversity and hierarchy of classroom situations. Students are constantly improving their professional skills through the completion of group practice projects.

**Challenges of Flip Classroom Teaching of Landscape Design Course**

In the flipping classroom, the role of teachers has changed a lot. Teachers are not only the disseminators of knowledge, but also the developers of micro-courses, the promoters of meaning construction, the guides of students, modern teaching concepts and new teaching models. Researcher. Compared with other professional teachers, the Landscape Design course requires teachers to use their expertise to organize the entire classroom more flexibly, which is a challenge for teachers.

**Preparation of Teaching Resources**

Flipping classrooms is a model for technology-driven learning, so the successful implementation of flipping classrooms is inseparable from the support of the Internet and modern educational technologies. Although the current quality courses or open courses on the Internet are rich in resources, the applicability is not universal because the syllabus and teaching plan of each school are not the same. On the one hand, the video released in advance requires teachers to master certain multimedia usage technologies, such as video editing, audio recording, and flexible use of PPT. On the other hand, video production content requires teachers to highly summarize the teaching content and refine the main points. The rich content and variety of forms can stimulate students’ interest in learning, which is a big challenge for most teachers.
Transformation of Classroom Concept
Flipping the classroom doesn't mean that your students will watch the instructional videos. How to get students involved in the classroom activities is the key. In the flipping classroom, teachers need to change the “cramming” teaching in the traditional teaching mode, from teacher-centered to student-centered, which is a huge impact on teachers' teaching philosophy, teaching thinking and teaching habits. In the mental health flip classroom, teachers need to carefully design teaching activities to maximize the use of classroom time, thus completing the student's knowledge internalization process. Therefore, teachers need to use a variety of teaching methods in combination with the characteristics of mental health education to create a flexible teaching environment and truly become the organizer and guide of the classroom.

Guidance of Students' Independent Learning Ability
Classroom teaching is the process of further deepening the teaching content and solving the individualized problem on the basis of the pre-class micro-course. In this process, teachers need to combine the curriculum content and teaching objectives, use the elements of context, collaboration, and conversation to give full play to the students' subjectivity, guide students to solve practical problems, and further improve students' self-learning ability.

The Challenges Faced by Students
Transformation of Student’s Roles
In the flipping classroom, students become the dominant players in learning. They can choose the time of study, the location of the study, the content of the study, and the amount of learning according to their needs and actual conditions. On the one hand, after watching the videos that teachers have shared in advance, they need to organize their own questions and take study notes. On the other hand, they should evaluate the effect of their pre-class study, keep abreast of their knowledge of what they have learned, and adjust their learning methods and learning strategies in a timely manner. This is a big challenge for students who have long been accustomed to relying on teacher teaching in traditional classrooms.

Transformation of Students’ Learning Habits
As the main body of the classroom, students need active participation and feedback from both the teaching and the interactive aspects of the teacher. Otherwise, the effect of the whole classroom teaching will be greatly reduced. Mental health flips the classroom, paying more attention to personal sharing in the classroom. However, under the long-term influence of traditional classrooms, it is difficult for students to express their opinions on their own initiative or with shame. Even individual students are unwilling to accept this type of classroom teaching mode. Excessive psychology is generated for frequent interactions between teachers, students, and students.

Conclusion
The Education Development Ten Year Development Plan (2011-2020) pointed out that the development of education informatization should be based on the innovation of educational concept, based on the construction of high-quality educational resources and information-based learning environment, and the innovation of learning methods and educational models. core. The use of flipping classrooms in the classroom of college in the Landscape Design course can effectively promote students' awareness of independent learning and achieve teaching goals. In short, the flipping classroom mode brings various opportunities for teaching, and teachers also face enormous challenges. The flipping effect and play of the classroom requires a process of exploration and adaptation for both teachers and students.
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