

Brief Discussion on Teaching Reform of Three-dimensional Composition Course

Haoran Du

Huanghe Science and Technology College
Zhengzhou, China

Abstract—Three-dimensional composition is an important professional basic course offered by art design major. At present, however, there are many problems in the teaching process of Three-dimensional composition. In this paper, the teaching reform of Three-dimensional composition is discussed, and the concrete ways of reforming and perfecting the teaching content and teaching methods of the Three-dimensional composition course are put forward, so that the Three-dimensional composition course will play its important role in art design talents cultivation.

Keywords—three-dimensional composition; teaching reform; method

I. INTRODUCTION

Three-dimensional composition is an independent subject to study form creation and design. It is a professional course using certain material, based on the vision and mechanics, to compose the elements, which is waiting for being form created or designed, in accordance with the principles of composition, into a new 3D form[1]. Its purpose is to enable students to understand and master the basic knowledge and techniques of 3D modeling, to analyze the composition rule, to improve the understanding of the formal beauty rule, and to train the ability for 3D modeling, space forming and creative thinking. It is a link between basic learning and professional learning.

Since its introduction into China in the late 20th century, it has been listed as the basic compulsory course for the design majors. With the long exploration, the Three - dimensional composition course has gradually formed a fixed and systematic teaching system. However, with the change of times, the rapid development of economic science and technology, the acceleration of knowledge renewal, the original teaching mode has appeared all kinds of drawbacks, so we need to deeply reflect and explore the solution.

II. THE EXISTING PROBLEM IN THREE-DIMENSIONAL COMPOSITION COURSE.

A. The Loose of Professional Convergences

Learning stereoscopic knowledge is designed for the professional design courses. But in the traditional teaching mode of design basic course, most teachers simply start from the basic theory itself of this course, usually limited to the course itself. They generally focus on the modeling basic

training like isolated abstract pure point, line, plane, block and body, so that their classroom teaching is short of extending the theoretical knowledge, and rarely linking with professional design. The estrangement and differentiation arising during the teaching of constitution course and professional design course make students have an illusion that it has nothing to do with the professional course when learning the composition knowledge, some students even have negative learning attitude towards learning. They can not seriously put themselves into the classroom, and after class they do not know whether the follow-up courses have any contact, not to mention the use of specific knowledge of constitutes knowledge.

B. The Weakness of Innovation Ability

As a basic course, three-dimensional composition course contains the corresponding production links, and these production training is often misunderstood as just a simple crafting class. Students can not recognize the importance of this course, and poor awareness of subject and course lead that some students finish this course just in order to complete the work, not to mention training the innovation and aesthetic ability. Some students' works are similar in material and production, they also like to follow the shape of textbooks and works on the network, lacking the spirit of active learning knowledge and independent thinking. In addition, in the teaching process, the instructors always focus on inculcating knowledge, emphasizing on mechanically and repetitively training the students' professional skills, constitute principles and rules. Students passively accept knowledge, lack of creative thinking training for initiative thinking and solving problem.

C. One-sided Performance Evaluation

The assessment method of the three-dimensional composition course is often to measure students' learning results according to their final assignment of composition. It is obvious that this performance evaluation is one-side, it can not be a good reflection of students' progress in the learning process. When students' efforts in the positive finding and solving finding problem can not be timely encouraged and affirmed, their learning enthusiasm can not be fully inspired.

D. Limited Material Selection

In the three-dimensional composition training process, paper, wood, iron wire has become the main choice of students

because of their low cost and easy processing, which results in some limitations to their knowledge of the material. Limited material is not good for students to give play to their creative ability, and their ability can not be comprehensively and systematically trained.

E. Lacking of Production Capacity

In the learning process, some teachers and students only pay attention to the theoretical part of study, instead of the production links. Because this is many students' first time to contact with three-dimensional composition course, they neither very understand the processing methods of different materials, nor use some professional processing equipment. All these result in a lot of good design work can not reach the desired effect due to rough production. Many students' lack of practical production capacity has become a significant short board in the composition course.

III. METHODS OF TEACHING REFORM OF THREE-DIMENSIONAL COMPOSITION

According to the above problems in the teaching of three-dimensional composition, this paper presents the specific methods of teaching reform.

A. Combination of Teaching Content and Professional Characteristics

Three-dimensional composition course is a self-contained discipline, which is inseparable connecting with modern design practice. Learning three-dimensional composition is to be applied to design. When teaching, the teacher can choose more practical knowledge content that is close to the major the students learn, Taking students' interest as the starting point, the teacher can change the original abstract composition trainings into some independent actual production trainings. For example, for the students in environmental art and design major studying the line three-dimensional composition, based on the furniture design project, teachers can first teach the theoretical content of three-dimensional composition, and then teach the basic theory of furniture design. From shallow to deep level and from easy to difficult degree, students can learn the corresponding professional design knowledge while mastering the composition of knowledge. This also can fully mobilize the students' enthusiasm of learning, realize combining of the teaching content of three-dimensional composition with major and correct the past basic courses divorcing from professional courses, so that basic course truly become a professional basis. In other words, the three-dimensional composition courses should work for the art design professional courses and the professional training objectives[2]. By reforming and perfecting the teaching content of the three-dimensional course, optimizing and adjusting the course structure system, we can help the students have higher professional comprehensive quality and innovative ability to adapt to the actual needs of professionals in modern society.

B. Cultivating Students' Innovative Spirit

The root of art and design lies in creativity, starting from the goal of cultivating creative talents of art design specialty. The teaching of three-dimensional structure is a design basic training with the goal of developing students' design thinking, excavating students' creative potential, cultivating creative consciousness and creating ability[3]. Therefore, in the teaching process, in the thinking level, we should strengthen the training of three-dimensional composition and creative composition. After mastering the basic principles of point, line, plane, body space structure, we should enhance the concept, turn the pure combination composition into a meaningful creative form, then gradually get rid of the habitual impact of a variety of figurative shape, stand in the new free perspective to explore and cultivate the ability of analyzing, summarizing and feeling new things. On the individual level, the students' cognition of the composition design will be affected by many factors, such as nationality, class, culture, interest, style and mood. Therefore, different students should have different perception of design. When setting homework, the teacher should fully tap the potential of students, teaching students in accordance with their aptitude, so that they create the work with their own aesthetic awareness and characteristics, so as to eliminate the same design and develop students' creative spirit and ability.

In addition, the study of the three-dimensional composition design should not be confined to the existing materials and courseware, students can use the Internet, such as allowing students to browse the world-famous design site, or follow some excellent design public number in Wechat. When Open their vision through the way they like, advancing with the times, teachers should constantly expand the knowledge of students, and guide them gradually stimulate and enhance their creativity and design through more reading, more thinking and more practicing.

C. Reforming the Course Evaluation for Students

Three-dimensional composition course in class, class content, teaching objectives and many other aspects are very different from other courses, the traditional curriculum assessment method is no longer applicable. If only regarding the students' final design work as the main basis to evaluate their curriculum, this "results" evaluation system focusing on the evaluating way can not really reflect the students' actual skills and the ability of analyzing and solving problem, and even seriously affect the students' usual learning initiative. Three-dimensional composition teaching focuses on practice, and practice more performance in peacetime.

In the process of the course, teachers can add a number of design issues based on teaching content, and step by step guide students from easy to difficult to complete them. For the subject, students can be divided into independent and or form a group to complete. During the completion of this small issues, from the information gathering, ideas draft, modify the production, each step should under the guidance of the teacher. In the learning process of practice, teachers should encourage and affirm students' trying, so that students can accumulate experience and feel victory when keep trying, then establish confidence. For example, to encourage students to fully design

a certain basic form, to try to use it to create as many as possible possibility of form, the students' innovative attempt can be used as an important basis for increasing the usual results. Each completed a small issue, at the same time start the teachers and students to participate in the discussion of the merits of the work, paying attention to student assessment, the students' mutual evaluation can also be regarded as part of the curriculum performance evaluation. The evaluation of students' academic achievements is not only the evaluation of students' learning results, but also the affirmation of students' efforts, understanding, practical ability and innovative thinking.

D. Find and Use New Materials

The use of materials is an important part of the three-dimensional composition, but also the core part of three-dimensional composition teaching. With scientific progress, various new materials have been used in various fields, and when finishing the three-dimensional composition, students still remain using general materials, instead of more research on new materials. Appropriate usage of new materials with three-dimensional construction homework is the key to get good effect. With the continuous improvement of people's aesthetic level, the requirements of art and design no longer simply stay in the visual beauty of the artistic form, but also take into account the material. Three-dimensional construction, therefore, has a significant role to cultivate students' good idea with material, we must cause enough attention. Three-dimensional construction work should find more materials, and try more available materials in the life.

Teachers should urge students to collect all kinds of materials in their lives before teaching, and even turn waste and old things in their lives into treasure, such as discarded wheels, unused parts, clothing, food packaging, and so on. From large machinery to a button, re-using can create the value of art. Life doesn't lack of new materials, but lack of a pair of eyes which is good at finding. Art comes from life, which requires us to always view life in a designer's point and to find that new available materials, in order to inject fresh visual experience into the three-dimensional composition design.

E. Strengthening the Production Capacity of the Training

During teaching, students' materials and tools should not be restricted, in order to training students' good habit to continually explore the materials and processing techniques. In the composition exercises, different materials have different processing methods. For some simple, common materials, such as paper, wood, etc., the production is not difficult, most students can better handle them, and whether the final production results is good or not, all depend on whether the students is careful or not. Correcting their production mentality needs the teacher to focus on guidance. But for the processing and production of the metal, glass, plastic, stone and other materials is a little complicated, it is likely to cause rough adverse effects because of improper production practices. This requires teachers to focus on teaching the corresponding production methods and techniques and actually demonstrate the specific production process in the classroom, for students' latter actual operation. For the initial production attempt, students should not be afraid of failure and should practice

many times. After this, they can master the appropriate skills and then make the final production. For those who need precision machining works, and under the guidance of professional teachers, students can try to use the appropriate professional equipment, such as laser engraving machine, to achieve the perfect results. In short, the teacher should teach students the basic production methods, actively encourage students to practice and master the use of different tools, and cultivate students' habits and interests of hands-on production, so as to gradually enhance the students' production capacity and works.

IV. CONCLUSION

The three-dimensional composition course should be informal, focusing on exploring students' potential to develop innovative thinking and operational ability. Mastering the point, line, plane, body space structure is the most basic requirements. Only mastering the basic knowledge can better to create and innovate in combination with discipline. And this is precisely the current social needs for the design talent. Therefore, the composition teaching reform and exploration need to start from the needs of social practice, and only meeting the needs of society can truly achieve the goal of reform. Certainly, this teaching reform is not overnight, we need to make unremitting efforts.

REFERENCES

- [1] Dai Bifeng, Design Constitution, [M] Beijing: Peking University Press, 2009.
- [2] Chen Xuchun, Exploration and Practice of Teaching Reform of Space Composition [J], Art Education, 2013:160-161
- [3] Xu Shicheng, Space Composition [M] Beijing: Tsinghua University Press, 2007.