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# Teaching Thinking and Exploration of the Graduation Design Course—Take the environmental art design major of vocational colleges and universities as an example

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**Abstract.** As the finale course in the professional study stage, Graduation Project is a course with a long time span, a wide range of knowledge and strong comprehensive ability. It plays an important role in the training of environmental art design professionals - "inheriting what the major has learned, and using it in the work". The "Graduation Design" course usually runs through the entire semester of students in higher vocational colleges. There is sufficient time to carry out practical operations on design topics that conform to the design process and design specifications, and there is also sufficient time to expand other knowledge and skills required by the major. Therefore, the "Graduation Design" course highlights the integrity and systematicness of the knowledge mastery of students in higher vocational colleges, and emphasizes the practicality and application of the major. The "Graduation Design" course should play a role in further establishing students' professional knowledge base, broadening students' professional knowledge and skills, and connecting students' professional work practice.

**Keywords:** graduation design; higher vocational colleges; knowledge structure; professional skills; practical work; practicality; application

#### 1. Introduction

In recent years, the environmental art design major has been exploring the practical teaching mode, striving to cultivate new high-quality skilled talents who understand design, can construct, and can manage. As the finale course in the professional learning stage, Graduation Project is a course with a long time span, wide knowledge coverage and strong comprehensive ability. It is the process of cultivating students to comprehensively apply the professional theoretical knowledge and skills they have learned in the past three years to solve practical design problems. Mei Wenbing(2011) thought that It can be seen that the "Graduation Design" course plays an important role in the training of environmental art design professionals - "inheriting what is learned in the major and applying it in the work", which plays a pivotal role.

#### 2. Current Situation and Problems

The key courses in the pre-requisite design category of "Graduation Design" for environmental art design majors in higher vocational colleges mainly include "Landscape Facility Design", "Square Landscape Design" and "Courtyard Landscape Design" (taking our school as an example). The teaching cycle of design courses is usually 3-4 weeks, which mainly focus on specific design objects. Due to the limitation of teaching time, these courses pay more attention to the learning of basic, special and conceptual concepts, which are different from those of these fast-food prerequisite courses. In contrast, the "Graduation Design" course usually runs throughout the semester, with sufficient time to carry out practical operations on design topics that conform to the design process and design specifications, as well as sufficient time to expand other knowledge and skills required by the major. Therefore, the "Graduation Design" course should highlight the

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integrity and systematicness of knowledge, and emphasize the practicality and application of the profession .

Through the professional teaching practice of our school's research group in recent years, it is found that although the "Graduation Design" course has been paid more and more attention by teachers and students, there are still some problems in actual teaching:

- (1) The traditional graduation design process cannot meet the needs of professional learning and skill development, resulting in insufficient depth of students' graduation design learning;
- (2) The graduation design lacks practicality, the practical teaching system is not perfect, and the connection with the actual work is not close enough. There is still a gap between the teaching results and the requirements of the actual work.
- (3) Under the epidemic situation, the digital equipment is outdated, and the digital classroom cannot be carried out. At present, teaching is mainly based on field visits and physical classrooms. Students cannot follow up on software operation and application ability of different design software, which is also a factor leading to the first two.

## 3. Solutions and Suggestions

In view of the status quo and problems, Sun Bin(2021)suggested the teaching and research team of colleges and universities should constantly explore new teaching methods and new learning methods for the "Graduation Design" course, combine with the "Graduation Design" course objectives and positioning, and further study the "Graduation Design" course in this stage. The role and the mode that should be adopted .

## 3.1 Establish the professional knowledge structure of students

Sorting out professional knowledge and establishing a reasonable system structure is not only an effective summary of the knowledge learned, but also an important method for systematic learning and rational application of professional knowledge. It is a very good opportunity to sort out and apply the professional knowledge learned through the "Graduation Design" course. First, cultivate students' solid design expression ability. It is the basic ability of design work to express what you want and what you see in a timely and accurate manner. It is divided into graphic expression ability and language expression ability. The main contents of graphic expression include conceptual sketches, renderings, analysis diagrams, models, audio and video, etc. It requires the ability of art painting and computer professional software operation. Practice tells us that the more methods we master, the more refined the design ideas will be. The more accurate and effective the expression is, the more it can reflect the high level of professional skills, which will be of great help to the future career. The other is language expression. For future designers, we require early development of thinking and logic ability and language expression ability. It is necessary to obtain and say it. Accurate and vivid language expression is an in-depth interpretation of the design work, and it is also a designer's display. important way of self. Second, cultivate students' unique thinking and creative ability. Creative ability is the embodiment of the accumulation of knowledge based on rich knowledge and life practice. It does not come out of thin air. Excellent ideas are often accompanied by rich design connotations. To continuously improve your thinking and creative ability, you first need to "see more and think more", look at different types of art works, look at different styles of design works, movies, paintings, music, sculpture, calligraphy, etc. can all be involved. Only by in-depth exploration, understanding the story behind the work, interpreting the culture contained in the work, experiencing the emotion of the author's creation, and then thinking, refining, and transforming the apparent content into one's own understanding, can we make continuous progress and enrich our accumulation. Secondly, participating in practice enhances the sense of innovation. In addition to the guidance of design concepts, the awareness of innovation also depends on the cultivation of practice. Without participating in the practice of environmental art design, one cannot deeply experience and understand the meaning of creative language. Therefore, the teaching form

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and content of the course should be combined with practical topics and projects as much as possible, and through real design practice, students can realize the significance of innovation to practice and the needs of practice for innovation. Finally, we must go deep into life. Life is the source of art and the destination of design. It is the source of nutrition for us. In-depth observation of different living environments and inspiration from the subtleties of life can create works of art that the public loves. Third, cultivate students' excellent professional quality. If the ability of design expression and thinking and creativity is regarded as the hard power of designers, then the professional quality of designers is undoubtedly the embodiment of soft power. It refers to the designer's understanding of design, attitude towards design work, as well as professional habits and relatively stable design ideas formed in long-term design work. To develop a good professional quality, we must first establish a correct world view, and take this as a guide to gradually develop good working habits in the design work, form a unique personal style, improve one's own artistic accomplishment, and have the ability to appreciate art. Secondly, there must be a sense of mission and responsibility. Designers cannot completely commercialize their work. Designers have a special mission. In a narrow sense, designers improve the living environment, meet people's needs, and bring convenience and enjoyment to social life. In a broad sense, the designer is the protector of the human homeland. He improves the ecological environment through his works and promotes the harmonious coexistence of man and nature; the designer is the practitioner of cultural inheritance. Give life to the work; the designer is also the recorder of the style of the times, each piece of work

## 3.2 Consolidate the professional knowledge base of students

has the imprint of the times, and records today's story for future generations.

The "Graduation Design" course must play a role in checking for omissions, making up for shortcomings, strengths and weaknesses, and laying a solid foundation. First, guide students to summarize and summarize professional knowledge. According to the knowledge structure determined above, carefully and systematically summarize the professional knowledge learned by the university, determine the target orientation, analyze one by one, and break down each one. Consolidate and strengthen, or strengthen hand-drawn or strengthen the operation of computer design software. Second, lead students to integrate theory with practice and deepen knowledge memory. "Graduation Project" is mostly based on actual projects, with strong practicality, so as to carry out comprehensive application of professional knowledge, guide practice by theory, and then reversely deduce from practice, deepen theoretical study, promote each other, and achieve the purpose of integration. Third, advocate students to have a hard-working learning spirit. No matter how hard you work, you will reap the rewards. I believe that effort and return are directly proportional. Especially in the professional learning stage, everyone's professional foundation is not much different. If you want to learn knowledge solidly, you have to work hard and sweat. If you want to lay the foundation. It takes extra effort to be firm.

## 3.3 To broaden the professional knowledge and skills of students

There are many professional knowledge skills that are not involved in classroom teaching and require us to flexibly arrange and practice through classrooms or other methods, such as language expression ability, speech ability, practical learning ability and so on. First, make a bold exploration of teaching mode. Taking the exercise of language expression ability as an example, during the course, according to the standard process and requirements, the relevant content of this major is the subject, and the class debate competition is held regularly. The competition process is very exciting and intense, and the students show very high enthusiasm and participation. At the end, the teacher made comments and summaries from the aspects of debate understanding, overall performance, personal performance, thinking and language expression, so that the students could deepen their impression and make continuous progress. Such a classroom form not only has a lively atmosphere, but also through the collection of debate materials in the early stage, students can accumulate knowledge reserves. During the battle of the competition, students can exercise their rapid thinking

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ability and expression ability, which has the effect of serving multiple purposes. A teaching mode that students prefer. In addition, for the training of speech ability, we regularly hold speech contests, teachers and students form judges to make comments, students present their design works to everyone in the form of speeches, and also show their self-style in the exchange of professional learning. It helps to improve self-confidence; second, establish a long-term mechanism for social practice and professional teaching. For practical learning, we make full use of social resources and strengthen school-enterprise cooperation. For example, we deepen the classroom into the front line of the project, regularly lead students to go deep into the construction site to carry out on-site cognitive learning, strengthen students' understanding of the process from design to construction, and improve design ability, to a great help. Through the development of professional skills, the learning atmosphere of the class has been driven, and a group of students with solid professional foundation and excellent professional skills have been trained. At the graduation defense of the 2017 and 2018 environmental art majors, after seeing the performance of the students' defense, a design company reached an agreement with the students on the spot. In short, the improvement of professional knowledge and skills requires the creation of different learning environments and modes for students, and at the same time these different learning environments and modes are novel and interesting for students, and they are willing to actively participate.

### 3.4 The professional work practice of docking students

An important purpose of the "Graduation Design" course is to prepare for employment, try to simulate actual projects and even have the opportunity to participate in actual projects, so that students can form a preliminary understanding of the design work process in advance, form a basic understanding of the design work content, and have a good understanding of design work and projects. The connection of construction forms the basic concept, and achieving the above goals through this course will help students quickly adapt to the work environment and meet the work requirements after participating in the work. First, constantly improve the teaching mechanism and enrich the teaching mode. Continuously improve the teaching mechanism based on professional practice, grasp the quality of personnel training, give full play to the subjectivity of students and the dominance of teachers, explore and innovate teaching models, strengthen school-enterprise cooperation, and establish a school-enterprise joint talent training mechanism. Broaden talent training channels, integrate resources, establish industry incubation bases, lead learning with production, promote production with learning, commit to social practice, serve the society with professionalism, enhance social responsibility, and improve professional level; second, "Graduation Design", based on "war". Use practical projects to drive professional teaching, so that students have the opportunity to participate in practical projects as much as possible, avoid talking on paper, and fully practice the concept of "theory linked to practice". The 2016 class of students participated in the art work of the film and television crew during their graduation design, and achieved excellent results. Later, they signed a contract with the crew, and successively participated in dramas such as "Deep Sea Sword", "The Time of You and Me" and "Full-time Master". The theater setting and art work have become the core professional staff of the crew. The 2019 and 2020 students participated in the school's campus landscape design project during the graduation design period, and the design plan was adopted and implemented by the school. The design team participated in the whole process from the preliminary plan to the completion of the project construction, and went deep into the construction site to observe the construction process on the spot. Understand construction materials, learn construction methods, follow up construction progress, guide construction with design, improve design with construction, and improve the level of professional practice. The original intention based on "war" is to connect with the actual work of the profession, which is also the important teaching purpose of this course and the key direction of talent training. In terms of school education, it is necessary to continuously obtain information from the society, understand and master design concepts and technologies that adapt to social development, and adjust teaching methods and content in a timely manner, so that students can keep up with the pace of social

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development and adapt to society's demand for environmental art design talents. needs, and smoothly integrate with the society.

#### 3.5 Increase investment in digital classrooms

The typical feature of the digital age is that the knowledge output, dissemination channels, and expression carriers of higher education rely more on digital technology. On the one hand, environmental design needs to be rooted in geographical reality, and on the other hand, it should also focus on the cultivation of digital technology capabilities. At present, digital classrooms are not limited to physical classrooms equipped with digital technology and equipment, and more virtual classrooms are slowly emerging in the network, especially some emerging digital processing technologies for teaching and demonstration.

In the professional education activities of universities, it is more convenient to obtain digital resources, but the digital processing software involved in the university is still in the old version, and some of the latest digital processing technologies cannot be applied. Compared with Western education, the Western teaching system introduced large donations as early as 1920 and was equipped with digital information equipment. Lay the foundation.

Nowadays, the raging epidemic makes it more difficult to design off-campus real scenes, and schools should actively open virtual classrooms. Virtual courses can be based on student self-study or teacher-assisted courses, and off-campus demonstration courses. Student self-study means that students choose course content based on their individual interests and seek inspiration. Teacher assistance mainly refers to self-built courses in schools, which need to be closely integrated and deeply related to the professional courses that students study, and use the power of digital information to transmit more knowledge information. At the same time, necessary off-campus demonstration courses are connected. This type of course mainly starts from off-campus practitioners or school-enterprise partners. It is formed when the content of teachers' classroom teaching complements each other, and deepens and expands the content of physical classroom teaching. Then effectively combine students' practice inside and outside the classroom, basic courses strengthen the foundation, and sort out the knowledge framework; on-campus courses broaden the scope of professional knowledge and guide students to enter the field of professional application; in the current epidemic situation, through digital technology, you can perceive the practical skills of enterprises and comprehend them without leaving home. Professional employability skills and prospects, familiar with professional practice. Such a digital classroom effectively respects students' autonomy in learning, is more conducive to cultivating students' interest in learning, stimulates students' enthusiasm for learning, expands students' knowledge horizons and thinking domains, and improves students' thinking ability and innovative quality [3].

## 4. Summary

The "Graduation Design" course has a very important and irreplaceable role in the study of environmental art design. The summary of professional knowledge is to better connect with practical work, and the expansion of professional ability is to effectively improve personal level. It is necessary to fully realize the significance of "Graduation Project", fully understand what teaching resources "Graduation Project" should provide students with, what professional ability to cultivate, and what direction to guide; students should also fully think about what to learn in "Graduation Project", what to do, how to learn and how to do it. In actual teaching, through bold and innovative teaching modes, actively explore teaching concepts, and take practical work as the guide, we strive to cultivate students to become outstanding talents with solid professional foundation, rich professional skills and excellent professional quality.

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