

An Exploration on the Teaching Reform Method of Integrating "Craftsman Spirit" into the Curriculum of Environmental Design Major under the Background of Integration of Production and Education

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Abstract: With the increasing demand for highly skilled and practical talents in the country, the integration of production and education, as an efficient talent training mode, has become an important way to improve the quality of talent training. As a combination of art and technology, environmental design requires students not only to have a solid theoretical foundation, but also to have excellent practical ability and innovative thinking. In this context, integrating "craftsman spirit" into the teaching of environmental design major is not only a response to the country's call for high-quality talent training, but also a key measure to adapt to the development trend of the industry and enhance the comprehensive competitiveness of students. The craftsman spirit emphasizes the core values of excellence, dedication and pursuit of excellence. For students majoring in environmental design, these qualities are important cornerstones for improving professional quality, achieving personal growth and career development. This paper aims to explore how to integrate the "craftsman spirit" into the teaching of environmental design major courses under the background of the integration of production and education, clarify the important role of the two in talent training by briefly describing the connotation of the integration of production and education and the craftsman spirit, and analyze the necessity of integrating the "craftsman spirit" into the teaching of environmental design major courses under the background of the integration of production and education. This paper expounds its positive influence on the cultivation of students' ability and the development of the industry, and puts forward the teaching reform method of integrating "craftsman spirit" into the curriculum of environmental design major. By strengthening the construction of teachers, optimizing the curriculum, and innovating teaching methods, students' professional quality and practical ability can be improved, and more high-quality and highly skilled craftsman talents can be cultivated for the industry.

1. Introduction

Environmental design is a marginal subject based on art, engineering and humanities and social sciences. It requires students to master the aesthetic sense of art at the same time, have a solid scientific and engineering knowledge system, can combine creativity with practical needs, design both beautiful and practical environmental works. However, there are some problems in the current teaching of environmental design major, such as unreasonable curriculum, single teaching method and insufficient practice links, which lead to students' practical ability and innovation ability can not be effectively improved. Therefore, under the background of the integration of production and education, integrating "craftsman spirit" into the teaching of environmental design professional courses has become a key measure to improve the quality of talent training.

2. Overview of the integration of production and education and "Artisan spirit"

2.1 Connotation of integration of production and education

The integration of industry and education means that vocational schools or colleges actively cooperate with relevant industries and enterprises according to their specialties, and closely combine industry and teaching to form a school-running mode of mutual support and mutual promotion. It aims to improve the quality of talent training in industry and education and promote the deep integration of the two sides. Under this model, schools not only provide professional skills training and theoretical knowledge education, but also provide students with practical work experience and skills training with the help of the actual working environment and conditions of enterprises, so as to cultivate high-quality technical skills talents who are more in line with the needs of enterprises^[1]. The integration of industry and education is both an educational policy and an industrial policy. The integration of industry and education not only helps to improve the quality of talent training, make it closer to the market demand, enhance the adaptability and practical ability of students, but also helps to promote the research and development of new technologies and new products, and promote industrial upgrading and economic restructuring^[2]. At the same time, it is also a deep cooperation between enterprises and schools based on resource sharing and complementary advantages, which helps to enhance the comprehensive strength of both sides and achieve a win-win situation for schools and enterprises.

2.2 Connotation of craftsman spirit

Craftsman spirit is a professional spirit of pursuing excellence, preciseness and pragmatism. It contains the professional concept of craftsman, craftsman and craftsman in three aspects. Craftsman ethics refers to the moral quality and professional ethics that craftsman should have, including integrity, dedication, responsibility, etc. Ingenuity refers to the spirit of innovation and the attitude of pursuing excellence that craftsmen should have, including creativity, innovation and excellence. Craftsmanship refers to the professional skills and craft level that craftsmen should have, including exquisite technology and rich experience^[3]. Integrating the craftsman spirit into the teaching of environmental design majors is helpful to cultivate students' professional quality and practical ability, and enhance students' employment competitiveness and innovation ability.

3. The necessity of integrating "craftsman spirit" into the teaching of environmental design major

3.1 The need for training innovative talents

In the professional education of environmental design, the "craftsman spirit" is helpful to cultivate talents with innovative spirit and practical ability. The environmental design major involves two major contents: indoor environmental design and outdoor environmental design, and requires students to have the ability to analyze and solve practical problems by comprehensively applying the knowledge and skills they have learned^[4]. The "craftsman spirit" advocates the quality of dedication, excellence, and meticulousness, which is an important basis for cultivating students' ability. By integrating the "craftsman spirit", students can be inspired to think creatively and encourage them to explore and try in design, so as to cultivate more environmental design talents with innovative spirit and practical ability.

3.2 Improve teaching quality and effect

Integrating "craftsman spirit" into the teaching of environmental design specialty is helpful to improve the teaching quality and effect. In the course of environmental design, teachers should pay attention to cultivating students' practical ability and professional quality. The "craftsman spirit" emphasizes the spiritual pursuit of extreme responsibility for work and excellence, which is the key to improve students' practical ability and professional quality. By integrating the "craftsman spirit", teachers can guide students to have a deeper understanding of the connotation and value of design works, and improve their design level and aesthetic ability^[5]. At the same time, teachers can also let students experience the application of "craftsman spirit" in environmental design through practical projects and case studies, so as to deepen their understanding and mastery of professional knowledge.

3.3 Adapt to the needs of industrial development

With the rapid development of China's economy and the continuous optimization and upgrading of industrial structure, the environmental design industry is also facing unprecedented opportunities and challenges for development. In this context, the major of environmental design needs to pay more attention to training students' practical ability and professional quality to meet the needs of industrial development^[6]. The "craftsman spirit" advocates the concept of excellence and the pursuit of excellence, which is in urgent need of the environmental design industry. By integrating the "craftsman spirit", more environmental design talents with superb skills and good professional literacy can be cultivated, providing a strong talent guarantee for industrial development.

3.4 Promoting cultural inheritance and innovation

Environmental design not only involves the application of modern design concepts and technical means, but also is closely related to traditional skills and cultural inheritance. Integrating "craftsman spirit" into the teaching of environmental design specialty is helpful to promote the inheritance and innovation of traditional culture. Through learning and practicing traditional skills, students can have a deeper understanding of the connotation and value of traditional culture, so as to better integrate traditional cultural elements into the design and create design works with national characteristics and cultural heritage. At the same time, the spirit of inheritance and innovation emphasized by "Craftsman spirit" can also stimulate students' innovative thinking and creativity, and promote the innovation and development of traditional culture.

3.5 Enhance the competitiveness of students in employment

In the current fierce job market, environmental design talents with "craftsman spirit" are more

likely to be favored by enterprises. Because the "craftsman spirit" embodies the quality of dedication, excellence, and meticulousness, which is the quality of employees pursued by enterprises. By integrating the "craftsman spirit", students can cultivate their professional quality and work responsibility, improve their professional skills and comprehensive quality, so as to enhance their employment competitiveness.

4. Teaching reform method of integrating "craftsman spirit" into environmental design courses under the background of integration of production and education

4.1 Strengthen the construction of teachers and improve the teaching level

(1) Strengthen the construction of teaching staff

In the process of improving the quality of education, the strengthening of teaching staff is an indispensable part. In order to build a high-level teaching team, we should adopt the strategy of both introduction and training. On the one hand, actively broaden the channels of talent introduction, focusing on the absorption of outstanding talents with deep theoretical foundation and rich practical experience, especially those designers or craftsmen who have practical experience in the enterprise. Their participation can not only provide students with fresh design cases and valuable practical experience, but also promote the close integration of teaching content with actual needs. On the other hand, for the existing teachers, professional training should be carried out continuously, and their professional quality and teaching ability should be continuously improved through regular activities such as learning exchanges and teaching seminars, so as to ensure the cutting-edge and practical teaching content^[7].

At the same time, in order to cultivate compound talents who can understand both theory and practice, it is particularly important to establish double-qualified teachers. This means that teachers should be encouraged to go out of campus and actively participate in practical activities such as enterprise projects and design workshops, so as to continuously improve their practical ability and professional quality through personal experience and practical operation^[8]. In this way, teachers can not only impart theoretical knowledge in class, but also guide students in practice, forming a double-qualified teacher team with both theoretical teaching ability and practical experience, and laying a solid foundation for cultivating students with craftsman spirit.

(2) Create a craftsman spirit teaching atmosphere

In the process of building a high-quality education environment, creating a strong craftsman spirit atmosphere is the key to improve the teaching effect. Therefore, it is necessary to take a series of measures to strengthen the propaganda of artisan spirit. On campus, various forms of activities such as special lectures, design exhibitions, and craft workshops can be held to deeply understand the connotation and value of the craftsman spirit, and stimulate students' sense of identity and pursuit of this spirit. These activities can not only broaden students' knowledge horizons, but also stimulate their innovative thinking and practical ability.

In addition, the establishment of craftsman spirit teaching culture is also crucial. In the teaching process, teachers should set an example, practice the craftsman spirit, and subtly influence students through the way of teaching by words and deeds. This requires teachers to uphold the attitude of excellence, rigor and pragmatism in all aspects of lesson preparation, teaching, tutoring, etc., and interpret the craftsman spirit with practical actions^[9]. At the same time, students are encouraged to actively participate in practice, through practical operation and teamwork, to cultivate their attention and pursuit of details, as well as perseverance in the face of difficulties. In this way, with the passage of time, a teaching culture with craftsman spirit will gradually take shape on campus, providing strong support for cultivating environmental design professionals with craftsman spirit (Table 1).

Table 1. Measures for creating the atmosphere of craftsman spirit teaching

Category of measures	Specific content
Publicity activity	Lecture, design exhibition, craft workshop
Teaching culture	Teachers lead by example and teach by example
Practical participation	Students are encouraged to participate in practice and pay attention to details

4.2 Optimize the curriculum and strengthen practical teaching

(1) Integrate artisan spirit elements

In the course of environmental design, the "craftsman spirit" should be clearly regarded as one of the core teaching contents, and the work attitude of excellence, rigorous and pragmatic should be emphasized. This attitude is not only reflected in the quality of the design works, but also throughout the entire design process. In order to let students deeply understand the application and value of craftsman spirit in design practice, excellent design cases at home and abroad should be introduced into the course, especially those design works that can fully embody the craftsman spirit. Through in-depth analysis and discussion of these cases, students are able to intuitively see how the craftsman spirit plays a role in design and how it affects the quality and value of design works. This teaching method not only helps to enhance students' professional quality, but also inspires their innovative spirit and design inspiration.

In the curriculum of the environmental design major, the craftsman Spirit course is specially set up, aiming at allowing students to fully and deeply understand the connotation and importance of the craftsman spirit. Such courses not only cover the basic content of professional ethics and professional ethics, but also focus on cultivating students' innovative thinking and problem-solving ability. Through systematic theoretical study, students are able to establish correct values and professional outlook, recognizing the importance of craftsman spirit for personal growth and professional development. The craftsman spirit course should also pay attention to the combination with practice, through case analysis, role playing and other teaching methods, so that students can experience and understand the true meaning of the craftsman spirit in the actual situation. In order to let students feel the craftsman spirit more intuitively, the curriculum should also strengthen the labor skills experience link. Through practical courses and project practice, students will personally experience the process of labor, from conception and design to production and improvement, every link contains the essence of artisan spirit^[10]. This experience can not only cultivate students' practical ability and innovative spirit, but also let them cherish the fruits of labor more and learn to respect the spirit of artisans. In the process of practice, teachers should pay attention to guide students to pay attention to details, pursue excellence, and cultivate their reverence for work and sense of responsibility.

(2) Interdisciplinary integration

As an interdisciplinary discipline, environmental design requires students to have a broad knowledge background and diverse skills. In order to cultivate the comprehensive quality of students, interdisciplinary courses should be included in the curriculum, such as engineering drawing, materials science, interior design, etc. These courses not only help students to acquire basic knowledge and skills in related fields, but also cultivate their interdisciplinary thinking and innovation ability. At the same time, combined with the knowledge in the fields of material science, engineering technology, humanities and arts, further enrich the content of environmental design courses, so as to make the teaching more comprehensive and in-depth. In addition, in order to

broaden students' knowledge and vision, elective courses related to "craftsman spirit" should be set up, such as traditional craftsmanship and design ethics. These courses can not only improve students' cultural literacy and professional ethics, but also stimulate their love for traditional culture and pursuit of design art (Table 2).

Table 2 Interdisciplinary integration table

Interdisciplinary curriculum	Content description
Engineering drawing	Master the basic knowledge and skills of engineering drawing
Materials science	Understand material properties and applications
Landscape and Interior Design	Cultivate the comprehensive ability of Landscape and Interior Design
Traditional craft, design ethics	Enhance cultural literacy and professional ethics

(3) Increase practical courses

Increase the proportion of practical courses in the curriculum, so that students can learn and practice the craftsman spirit in practical operation. Practical courses can include course design, project practice, graduation design and other forms. By participating in these practical courses, students are able to experience the whole process of design work, from conception to realization, from idea to finished product. In this process, they can not only exercise their professional quality and practical ability, but also deeply understand the importance of craftsman spirit in design. The setting of practical courses should pay attention to the connection and complement with theoretical teaching, so that students can establish a close relationship between theory and practice, so as to comprehensively improve their design ability and comprehensive quality.

4.3 Innovative teaching methods to stimulate learning interest

(1) Case teaching

Case teaching is an effective teaching method that combines theoretical knowledge with practical situations. Through the introduction of practical cases, students are deeply involved in the analysis and discussion of cases, which can not only help students better understand the application of theoretical knowledge in practice, but also cultivate their problem-solving ability and teamwork ability. In case teaching, teachers should select representative and inspiring cases, guide students to analyze and think from multiple perspectives, and encourage them to put forward their own opinions and solutions. This way of teaching allows students to learn in a relaxed and pleasant atmosphere, increasing their enthusiasm and participation in learning.

(2) Project teaching

Project teaching is a practical teaching method with students as the main body. Through project-based learning, students can participate in the planning, design, implementation and evaluation of projects, so as to constantly exercise and improve their professional quality and practical ability in practice. In project teaching, teachers should focus on cultivating students' innovative thinking and teamwork ability, encourage them to have the courage to try and explore, and constantly challenge themselves. At the same time, teachers should also provide the necessary guidance and support to ensure the smooth progress of the project and the achievement of the results. This teaching method enables students to learn in practice and practice in study, forming a virtuous circle and promoting their all-round development.

(3) Flipped classroom

Flipped classroom is a new teaching mode that subverts traditional teaching methods. It encourages students to self-study theoretical knowledge through videos, reading materials, etc., before class, while class time is mainly devoted to discussion, practice, and problem solving. This kind of teaching method can significantly improve the teaching efficiency and learning effect, and stimulate students' learning interest and enthusiasm. In flipped classroom, teachers should carefully prepare teaching resources and teaching activities to ensure that students can fully understand and master theoretical knowledge before class. In the classroom, teachers should actively guide students to participate in discussions and practices, encourage them to ask questions and share insights, and thus cultivate their critical thinking and innovative abilities. This teaching method can make students gain a sense of achievement in active learning, improve their learning motivation and self-confidence.

5. Conclusion

Under the background of the integration of production and education, the teaching reform method of integrating "craftsman spirit" into the curriculum of environmental design major is an important way to improve the quality of talent training. Through strengthening the construction of teachers, optimizing the curriculum, innovating teaching methods and other measures, students' practical ability and innovative spirit can be cultivated, and students' professional quality and comprehensive quality can be improved. At the same time, the implementation of teaching reform methods can also promote industrial upgrading and economic and social development. In the future, we should continue to deepen the integration of production and education and the integration of artisan spirit, explore more innovative teaching methods and models, and contribute to cultivating more high-quality and skilled artisan talents.

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