Study on the Construction of Curriculum System for the Integration of Environmental Design Courses and Certificates in Colleges Based on Statistical Analysis

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Abstract. With the start of the pilot work of the 1 + X certificate system in China, the education department began to encourage college students to strive for the corresponding vocational skill level certificate on the basis of obtaining the academic certificate, so as to improve the employment situation and alleviate the current social employment difficulties. In this paper, the environmental design professional courses in Colleges and universities as an example, in-depth analysis of the shortcomings of the current single teaching environmental design professional course system, through the statistical analysis of the questionnaire of college students and enterprises, the feasibility of realizing the integration of environmental design professional teaching course certificate under the experimental conditions of "1 + X" certificate system in Colleges and universities is studied, and the corresponding curriculum system is constructed. The statistical results show that when the curriculum system of environmental design is adopted, the satisfaction of students and enterprises has increased. The results show that the integration of academic education and vocational skills training can be achieved by setting up the course of "course certificate integration", which is helpful to cultivate a large number of students who meet the needs of enterprises and improve the employment rate of college students.

1. Introduction

In recent years, China has taken improving the quality of vocational education as an important measure to promote the development of the whole higher education, and made it clear that the core concept of vocational education is "service-oriented and employment oriented". At the same time, with the rapid growth of China's economy, drastic changes in the social environment, the mode of economic development, economic structure and industrial structure constantly updated, put forward higher requirements for technical talents, and the recruitment conditions of enterprises are increasingly harsh [1-2]. College students with both academic qualifications and professional qualifications are more popular in the labour market. In this environment, our country has carried out the teaching reform of "course certificate integration" in the field of vocational education [3-5].

The implementation plan of national vocational education reform puts forward the new requirements of starting the system of "academic certificate + several vocational skill level certificates" (referred to as "1 + X"). The construction of 1 + X course certificate integration curriculum system in private colleges and universities is to implement the spirit of the 19th National Congress of the Communist Party of China and the deployment of the national education conference, We should implement the spirit of the national vocational education reform implementation plan, the pilot plan for the implementation of the system of "academic certificate + several vocational skill level
certificates” in Colleges and universities, and the guiding opinions of the Ministry of education on the formulation and implementation of the professional talent training plan in Vocational Colleges and Universities. We should adhere to the new requirements of technological progress and industrial development, undertake the fundamental task of establishing morality and cultivating talents, and carry forward the spirit of craftsmen. It is an important measure to cultivate compound technical talents and improve the quality of education and teaching.

The curriculum system of educational environment design major in Colleges and universities should be reformed reasonably, comprehensively and efficiently according to the requirements of the development of modern society, the demand for talents and the application standards in the field of technology. The emphasis is to highlight the characteristics of professional skills, so as to improve the quality of teaching and meet the requirements of social talents training. According to the pilot scheme of implementing the system of "academic certificate + several vocational skill level certificates" issued by the Ministry of education and other four ministries and commissions, the pilot institutions should integrate the certificate training content into the professional talent training scheme according to the requirements of vocational skill level standards and professional teaching standards. We should optimize the curriculum and teaching content, coordinate the teaching organization and implementation, deepen the reform of teaching methods, so that learners can obtain vocational skill level certificate while completing academic education. Therefore, the development and construction of "course certificate integration" course is the core of the organic integration of diploma education and vocational education of environmental design major in Colleges and universities. The course of "course certificate integration" of environmental design major in Colleges and universities is developed and constructed based on professional teaching standards and vocational skill level standards. By setting up the course of "course certificate integration", the integration of academic education and vocational skill training is realized, and the dual functions of vocational education and social vocational training are realized.

2. Current situation of environmental design courses in colleges

2.1. Course introduction
Under the background of economic change, in order to meet the basic demands of infrastructure construction, environmental design specialty was born. The purpose of environmental design is to create a harmonious and lasting art, which involves a wide range and is generally regarded as the synthesis of art disciplines. Environmental design has a strong practical characteristics, which requires a professional road. Environmental landscape design and interior decoration design are two major industries in the field of environmental design practice. The demand of market and the enhancement of specialization make the environment art become professional in the teaching structure of higher education.

With the increase of social demand, the courses of environmental design have been set up in Colleges and universities all over the country. This is the inevitable development trend in line with the current social industry demand, and also the necessary stage of rapid development, which provides different management angles and tendencies for each university. However, due to the misunderstanding of the concept of this specialty, the uneven level of education and the difference of educational concept, the market demand for professional talents has been increasing. The cultivation of the professional talents has become the focus of the major universities. How to make the students more popular with the enterprises has become the core problem of the current environmental design specialty.

2.2. The shortcomings of the current environmental design curriculum
Due to the needs of the market for talents and the rapid development of economy, the higher education of cultivating practical and professional talents is widely valued, and the construction of environmental design course can not be ignored. At present, the development time of environmental
design specialty in China is relatively short, which leads to the immature teaching mode of environmental design specialty to a great extent, the weak theoretical basis of supporting discipline, and the lack of unity and scientificity.

Through the follow-up survey of environmental design graduates, it is found that the number of direct employment students of environmental design major is still very large, and the jobs that can be engaged in are relatively wide. It can be said that the advantages of environmental design major are reflected here. But in the actual work, environmental design graduates and most of the graduates, there are some problems, such as just on the job has not been able to adapt to the environment, lack of experience, the theoretical knowledge and practical operation is still out of touch between the phenomenon. That is to say, the cultivation of students' internship level in the school usually stays at the theoretical level but does not touch the practical level, which leads to the lack of practical ability and weak social adaptability of graduates. This shows that the environmental design major in Colleges and universities needs to adjust the teaching structure to achieve the goal of matching theory with practice.

In order to make clear the direction of curriculum reform of environmental design major, this paper investigates the views of 100 graduates of environmental design major and 100 enterprise HR who have recruited students of environmental design major on the curriculum reform of environmental design major through questionnaires, and analyses them from five aspects: skill certificate, theoretical knowledge, communication ability, artistic beauty and practical ability, Determine the main training direction of students majoring in environmental design, and the survey results are shown in Figure 1.

![Figure 1. Survey results](image)

As can be seen from Figure 1, skill certificate is an important indicator of whether students majoring in environmental design can obtain employment at present. Practical ability is usually reflected by skill certificate because it is difficult to quantify. Theoretical knowledge and communication ability are also the necessary abilities for students majoring in environmental design to obtain employment, while the demand for artistic beauty is usually small. From the above results, it can be seen that the skill certificate is very important for the employment of college students majoring in environmental design. Therefore, this paper puts forward and optimizes the curriculum system of course certificate integration of College Environmental Design under the pilot of 1 + X certificate system.
3. Implementation plan

3.1. The construction of curriculum system and the optimization principle of personnel training program of environmental design major in Colleges and Universities under the pilot of 1 + X certificate system

The construction of the curriculum system and the optimization of the talent training plan for the integration of 1 + X course certificate and environmental design course certificate involves the related vocational education quality standards, the renewal of the original professional talent training plan, and the construction of the professional group in the recent "high level higher vocational schools and professional construction plan with Chinese characteristics" project. And the problem-solving needs to be analyzed and studied under the guidance framework and come up with solutions. Based on the document spirit of the National Education Conference and the practice of colleges and universities, the following principles are followed to carry out the 1 + X course certificate integration and professional talent training program.

One is to follow the four principles in the guiding opinions. That is to insist on education and promote all-round development; Adhere to the guidance of standards to ensure scientific and standardized; Adhere to the law, reflect the characteristics of training; Adhere to the principle of improving the mechanism and promoting continuous improvement.

Second, follow the principle of results oriented. Achievement orientation is an important achievement in the comprehensive reform of higher education. Its main idea is to carry out reverse design and positive implementation of teaching guided by students' expected ability, focus on "learning achievements" and pay attention to the cultivation of students' innovation, practice and other abilities. The construction of 1 + X course certificate integration curriculum system is conducive to the overall improvement of environmental design education and teaching quality and the cultivation of compound technical talents; The diversity and selectivity of X certificate and its relevance to environmental design major are conducive to promoting students' personalized development; Taking the learning achievement of X certificate as the guidance is conducive to the transformation of teachers' and students' teaching and learning concepts; The curriculum development based on the learning results of X certificate is conducive to the improvement of teachers' professional ability.

The third is to follow the principle of environmental design specialty and X certificate. The content of vocational skill level certificate reflects the specific professional quality, knowledge and skills that learners need to complete the typical tasks in the main work areas of environmental design related jobs and career development. At present, the main solution of 1 + X certificate system is to enhance the pertinence, adaptability and flexibility of vocational education, and improve the ability of vocational education to promote economic and social development. Therefore, the vocational skill level certificate of environmental design major in Colleges and universities should focus on the graduates' jobs of environmental design major, which can accurately reflect the new technology, new technology, new norms and new requirements in the field of environmental design major. After learning and training, the graduates have the ability to be competent for the job tasks, which is conducive to shortening the time for graduates to adapt to the job, To adapt to the new requirements of the transformation and upgrading of enterprises for the ability of employees.

3.2. The method of integrating the course certificate of the course system of environmental design specialty in Colleges

One is integration. The quality, knowledge and skill requirements of the X certificate are in line with the teaching contents of the major; The content of X certificate is integrated into the curriculum system of environmental design. Students can directly participate in X certificate assessment after completing the course of environmental design.

Second, interface method. The quality, knowledge and skill requirements of X certificate are in line with most of the education and teaching contents of environmental design major; Most of the contents of X certificate are integrated into the professional curriculum system, but one or two small courses
modules are still required to be taught separately, and then they will participate in the X certificate assessment.

Third, the single column method. Students choose the X certificate they like in cross major, and list a set of courses according to the requirements of X certificate learning and training. This method needs to be used in conjunction with the credit management system, and the group of courses can be converted into several credits in the major, so as to ensure that the total credits of the whole professional talent training program under the pilot framework of 1 + X certificate system can be controlled.

Fourth, mix and match. There is a selective docking between environmental design major and several x certificates in Colleges and universities. The integration method, interface method and single column method are used for the integration of environmental design professional certificate. On the premise of controlling the total credit of environmental design specialty, the quality education course, public platform course, sharing course, curriculum of all specialties and mutual selection courses of environmental design specialty group should be considered properly.

3.3. Course structure and main teaching content integration of environmental design specialty group in Colleges and Universities under the course system of course certificate integration

The construction of curriculum system of environmental design major in Colleges and universities is to strengthen the quality, knowledge and skills of environmental design major in the field of learning; With the transformation and upgrading of enterprises, new technologies, new processes, new specifications and new requirements are included in the teaching content; And expand the occupation field, occupation ability, etc., cultivate compound technical talents. The results oriented curriculum of environmental design, the curriculum content setting, curriculum standard setting, curriculum informatization construction, curriculum teaching plan setting, and curriculum teaching plan setting supporting the talent training objectives and X certificate, are sorted out and integrated, and the talent training objectives, graduation requirements, X certificate and related courses of environmental design are refined, Complete the construction of curriculum system of environmental design professional course certificate integration.

After the reform of the course, we investigated the enterprises recruiting environmental design majors, and found that the enterprise's recruitment satisfaction was significantly improved, which proved that the curriculum system of environmental design major course certificate integration in Colleges and Universities under the 1 + X certificate system pilot has good practical application ability.

4. Conclusion

The conclusions are as follows:

(1) The construction of curriculum system and the optimization of personnel training program of environmental design major in Colleges and Universities under the 1 + X certificate system pilot can select teaching content according to the ability needs of docking professional posts, realize the effective docking of professional groups and industrial chain or post groups, reconstruct resources within the group with the curriculum as the core, realize the sharing of professional resources, and play the group agglomeration effect;

(2) Through the construction of the curriculum system of course certificate accommodation, modular courses are developed. According to the mode of "platform + module" or "foundation + platform + module + direction", basic or platform courses cultivate professional basic ability or general ability, and module or direction courses cultivate more targeted post ability and career transfer ability;

(3) Through the construction of the curriculum system of course certificate accommodation, the project resources are constructed, focusing on transforming the high-quality resources of industry enterprises into education resources, and incorporating new technologies, new processes, new specifications and new requirements into the teaching standards and teaching contents to form a project platform or resource library.
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