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The Cultivation of the Creativity of Environmental Design Students in the Transformation to Applied Technology Colleges and Universities

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Abstract:

As a subject closely related to innovation, design art needs innovation more than any other discipline, and cultivating students' creativity is naturally called one of the training goals of environmental design students, the author thinks that cultivating the creativity of environmental design students should start from the cultivation of students' creative thinking and students' creative personality, and point directly to teaching. Under the tide of promoting university students' innovation and entrepreneurship, it is not enough to cultivate creativity, we should learn from the successful experience of the German University of Applied Science and Technology and cultivate creative professionals in applied technology environment design.

1. Introduction

Mr. Zhou Ji, the former Chinese education minister, said: "China's intellectual education is first-class in the world, but our students lack the spirit of innovation, innovation vitality, to improve quality education in an all-round way, to train students' creative ability." [1] It can be seen that the cultivation of students' creativity is pressing; the progress and innovation of any existing subject cannot help but use the human creativity to play. As our future force, it has become an urgent task for modern college students to cultivate their creativity.

Environmental design education has its particularity, that is, design should constantly meet the needs of contemporary people, and in people's lives to play, express and guide the role of public aesthetics. Environmental design is the combination of art and technology, the change of artistic style and the progress of production technology, all push art design to the forefront of innovation. The aim of the design is to destroy nature at the same time, to establish a set of heavenly

education, straight through the magic of the sky, the spirit of the universe is too virtual natural philosophy, and clarify the eternal life. This shows that environmental design is the art of time, with pragmatic timeliness, so the strength of creativity is the fundamental to the survival of design form or death [2]. To sum up, it is not difficult to come to the following conclusion: one of the aims of training qualified environmental design students points to how to cultivate students' creativity.

As for how to cultivate the creativity of environmental design students, I think we should start from the cultivation of students' creative thinking and students' creative personality, and point directly to teaching. The introduction of your article is organized as a funnel that begins with a definition of why the experiment is being performed and ends with a specific statement of your research approach. And it highlights controversial and diverging hypotheses when necessary.

2. To Cultivate Students' Creative Thinking Ability as the Main Body, This Takes the Students' Environmental Design Professional Knowledge As the Basis

Mr. Tao Xingzhi, a famous educator, thinks that creative thinking ability means breaking through the conventional thinking, having different problem-solving methods and learning methods, or using the knowledge and experience gained, discovering new things, solving new problems, and having novel and unique insights through original thinking activities and flexible thinking [3]. Creative thinking, innovation ability is not innate, although it and human talent have a certain connection, the most important is the result of the education training.

2.1. Cultivate Students' Creative Thinking in the Design of Basic Training Courses

2.1.1. Use Practical Courses Such as Design Sketching, Color and Sculpture to Train and Cultivate Students' Creative Thinking

Sketching, color, the sculpture is the basic course of design creativity, is the common experience of image and abstraction, sensibility, and rationality [4]. To strengthen the design foundation and set up sketch teaching, in addition to solving the basic modeling problem, more importantly, in the training to train students creative thinking, to help design to solve the design concept of the problem [5], these basic courses are more for the training of design creative ability and image thinking system training, teaching is aimed at improving students' artistic quality through modeling training, developing their creative potential, so that sketching, color, sculpture teaching in the student's mind, for the different characteristics of students. Targeted mobilization of its subjective initiative, guide its learning of the scientific nature, cultivate its creative consciousness so that students in the sketch, color, sculpture plastic arts technology, concepts and rules of the three levels of integration.

2.1.2 .Cultivate Students' Creative Thinking in Composition Training

Plane composition, color composition, the three-dimensional composition of the "three major compositions" of the art design. [6] In the composition training, the creative theme, expression method, color, and many other elements directly affect the effectiveness of the work, indispensable, as the designer, the most mainly oriented to life, so that creativity comes from life and higher than life, the practicality of creativity and the aesthetic of art together. We can try to use different ideas and

methods to develop students' thinking creativity, expand the width of students' thinking, and cultivate students' interest in learning. Create ideas using abstract or figurative graphics by looking at what's around you.

Therefore, the composition of the curriculum can improve students' thinking and imagination ability, enlighten students' design inspiration, but also cultivate students' creative ability, modeling ability, and analytical ability.

2.2. Guide Students to Seek a Balance between Tradition and Modernity

2.2.1. Learn from Traditional Culture

Cultural tradition is the most precious culture that a nation has condensed in the customs of nature and life for thousands of years, and it is the source of great artistic inspiration in modern environment design [7], which gives us infinite help and enlightenment from the form of design to the spiritual connotation.

2.2.2. Learn from Life

Nature is the best teacher of our life, the blueprint of artistic expression, the source of design innovation. Nature makes our pen and ink shine, the expression of language more rich, more image, more vivid. Therefore, in environmental design teaching to encourage students to use all possible time to write students, a good habit is a sketchbook does not leave, every day painting, time painting, engraved attention to life, the intentional, selective record of interest. Of course, recording is not an end, but a very important process of experience, triggering association, imagination training and performance is the real purpose, but also the future designer to the society of the only way.

Creative thinking teaching is the teaching of students' creative thinking ability. Teachers should use creative thinking strategies to stimulate students' creative motivation in a supportive environment, to cultivate students' creative ability. [8] Creative thinking teaching has the following characteristics: Encourage students to apply imagination and enhance their creative thinking ability; Learning activities take students as the main body, teachers do not monopolize the whole teaching activity time in teaching; Pay special attention to providing a free, safe, and harmonious situation and atmosphere; Teaching methods pay attention to stimulating students' interest, encourage students to express and tolerate different opinions, do not rush to judge. According to the above characteristics, the following methods can be used in science teaching to cultivate students' creative thinking. First of all, arrange the adaptation of the bad situation, prepare a wealth of teaching materials, teaching aids, and provide a variety of materials, instruments, equipment, to stimulate students' creativity and imagination. Second, encourage students to ask their questions and experience a sense of responsibility and achievement through independent problem-solving. Third, teachers should often use open or divergent questions to guide students to think about problems, and through "brainstorming", to put forward ideas or ideas. At the same time, it should be pointed out that the evaluation of students' creativity directly affects the formation of students' creativity, in process, teachers must be lenient to the mistakes made in the process of students' creation, and should not ban their creative activities because students have mistakes, and stifle the bud of their creativity.

3. To Cultivate Students' Creative Personality

"Creative personality" refers to the personality of the creator, which mainly involves creative motivation Creative enthusiasm Creative will and creative character are the sum of the psychological characteristics that trigger the maintenance, reinforcement, and adjustment of creative activities [9]. Among them, "independence and autonomy" are the primary characteristics of a creative personality. Think that art is a emotional expression, art thinking people and people are very different, design thinking expression forms are also different, or even far apart.

Could students' creative personality be cultivated through teaching activities? The answer is yes. Because personality is not an inherent natural attribute. The natural attributes that are innate are formed by people under the influence of various education and environment or by some kind of activity. The cultivation of students' creative personalities is the need for social development today, and it is also the common trend and main trend of educational reform in the world today. In many countries of the world today, educational research has changed from the development of historical "intelligence" to "personality cultivation". Especially in environmental design teaching, students' cooperative practice is essential, but students are encouraged to complete the design independently. Forming a set of own design thinking in the design practice, and under the guidance of this design thinking, the independent expression will certainly make the environmental design works different from others, to stand out from many works of art. [10]

4. The Enlightenment of the Applied Technology of FH University in Germany to the Teaching of Environmental Design in China

At present, the transformation reform of local undergraduate colleges and universities is in full swing, as a professional with practice as its vitality, environmental design has become the vanguard of the transformation of applied technology universities. "Design-changing life" is the professional mission of contemporary designers, but also the requirements of the new economic form with "innovation" as the slogan. The essential role of applied technology university is to provide the applied technology talents needed for the development of economic entities.

Judging from Germany's historical experience as an industrial powerhouse in Europe, the German FH university, known as Fachhoch schule, Chinese translated into the University of Applied Science and Technology in which the Khanma credit is obvious. FH is characterized by its curriculum focus on practice, the theoretical examination is not the focus, teaching focus on the training of students' application ability, and FH University and Germany's senior enterprise research and development parts have close cooperation, that is, conducive to the transfer of enterprise demand for talent, but also more conducive to the industrialization of research, Germany's well-known Siemens has the corresponding FH University to carry out in-depth cooperation between the university and enterprises [11]. FH is about one year shorter than a comprehensive university, unlike the comprehensive university FH University will provide students with half of the business practice courses, students have internship opportunities in the enterprise. [12] FH University is not the same as a higher vocational college, its status is the same as ordinary comprehensive universities, but learning is more likely to apply, so graduates are more able to adapt

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to the needs of enterprises, similar to industrial design and other applied professional more popular.

From the German FH University we can learn from, first, its professional settings point strong. In FH University's environmental design majors and other majors as short school hours, small scale, professional adaptability, and application technology are better, the application of technical art design majors from the professional setting to protect the employment competitiveness of graduates. Second, the curriculum facilities and teaching methods are mainly practical. Environmental design professional education can learn from the German FH University group study, 5-8 students become a group, in a semester to complete at least a complete project assignment, improving students' comprehensive practical ability. It is also necessary to learn from FH University's environmental design professional teaching through the school cooperation of enterprises to provide student learning projects or help enterprises to solve specific problems in production practice, corporate tutors and teaching tutors together to guide students to complete the curriculum design. Third, emphasize the role of internship in learning, FH university system is short, but one or two learning internships cannot be stopped. We can also through the in-depth development of school-enterprise cooperation, help students enter the enterprise study, the accumulation of environmental design professionals, closely related to the production and management experience. Fourth, more pragmatic graduation design. Through internships and participation in practical projects to help students in the internship and study to clarify their career direction, can also be combined with graduation design, as the first step in design practice. Every year, 60% of students at German applied technology universities choose to complete their graduation design and graduation thesis in an internship enterprise, graduate design more effective and practical project docking, the use of more pragmatic topic selection, to solve specific design problems, through graduation design effective to career excess.

5. Results and Discussion

An important task of higher education is to cultivate students' creative thinking, which is more essential to the cultivation of creative ability for environmental design majors, and it is a core concept and fundamental purpose of environmental design education. We should not only cultivate students' creative thinking in the basic training course of design, but also guide students to take traditional culture as the center, be close to life, as the inspiration source of environmental design creation, and cultivate students' inspiration, imagination, and creative thinking in the study of tradition and life. On the road to the transformation of applied technology undergraduates, environmental design majors need to cultivate applied technical talents in addition to cultivating students' creativity, and the innovation and entrepreneurship of college students encouraged by the state can bear fruit in environmental design majors.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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