Research on Thinking Expansion and Innovation Path in Design Composition

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ABSTRACT

Starting from the basic overview of the course "Design Composition," this paper analyzes the shortcomings of the traditional teaching model in combination with teaching practice experience. The article points out that the traditional teaching method of "Design Composition" has certain limitations, especially regarding material collection channels, abstraction and simplification of design thinking, interaction and communication between teachers and students, and time accumulation, which fails to stimulate students' innovative potential fully. Based on this, this paper proposes expanding students' design thinking through multi-channel material collection, strengthening the training of abstract thinking and simplified processing, improving the effectiveness of interaction and communication, and focusing on time accumulation in teaching design composition. In addition, the article also discusses how to promote the development of students' innovative design thinking through artistic conception training, the cultivation of form abstraction ability, the diversification of composition expression forms, and the strengthening of practical training.

Keywords: Design composition, Teaching mode, Thinking expansion, Innovation path.

1. INTRODUCTION

The "Design Composition" course is one of the core courses in the field of art and design, aiming to cultivate students' basic design abilities and innovative thinking. However, the current teaching methods mainly focus on the explanation of existing compositional theories and the copying of classic works, through which students are helped to grasp the principles of composition. Although this traditional approach is somewhat helpful for understanding the basic laws of composition, its limitations are also becoming increasingly evident. The true goal of the Design Composition course should be to stimulate students' creative thinking and help them understand the laws of formal beauty. Given that the field of art and design has a strong application-oriented nature, the teaching content should not only convey compositional theories but also be combined with practical design cases to thoroughly explain modern design concepts, so as enhance students' practical abilities and innovative consciousness. The Design Composition course is a crucial step for students to move towards design. It transforms the sensuous beauty

in art into the rational beauty in design through systematic training, thus becoming a bridge connecting painting and design [1].

2. OVERVIEW OF THE DESIGN COMPOSITION COURSE

The traditional teaching model of "Design Composition" has certain limitations, as it fails to fully stimulate students' initiative and effectively link professional knowledge with the cultivation of students' aesthetic and innovative abilities. Therefore, it is urgent to reform this teaching model to better meet the actual needs of students and improve the teaching effectiveness of the course. Next, we will explore how to optimize teaching strategies to promote the reform and innovation of the "Design Composition" course.

2.1 The Constraints of Traditional Teaching Model on Students' Initiative

At present, many colleges and universities still follow the traditional teaching model of "Design Composition", that is, teachers lecture and students

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draw. This model, which is teacher-centered, is conducive to teachers' control of the teaching progress, but it restricts students' space for independent thinking and innovation. In this teaching method, students are often just passively receiving knowledge, lacking sufficient time for indepth thinking and understanding, and thus find it difficult to apply theoretical knowledge flexibly. In addition, the traditional teaching model also focuses on hand-drawing training. Students need to pay too much attention to the visual effect of the picture during the drawing process, striving for a neat picture, and often neglect the depth of conception. A large amount of time and energy is spent on drawing and keeping the work tidy, which prevents students from fully expanding their thinking. The quality of homework is often not up to expectations, and many works are just simple imitations and copies.

2.2 The Insufficient Fit of Traditional Teaching Model with Professional Directions

The "Design Composition" course typically comprises three parts: plane composition, color composition, and three-dimensional composition. The theories and concepts involved in the content are relatively abstract, especially for students with a science and engineering background, who often encounter difficulties in understanding them. In addition to this, there is an insufficient connection between the course content and students' professional knowledge. For example, the teaching content of plane composition and color composition focuses more on visual communication, which is often overlooked by students majoring in industrial design. On the other hand, three-dimensional composition is regarded as similar to a handicraft class, with a weak connection to actual product design. As a result, students find it difficult to understand the importance of the course. In the end, after the course is over, students often fail to apply the compositional knowledge they have learned to their own professional designs, leading to the actual teaching effect of the course not meeting expectations.

2.3 The Insufficient Cultivation of Aesthetic Awareness in Traditional Teaching Model

The current teaching model has certain shortcomings in cultivating students' aesthetic awareness. First of all, students' ways of thinking tend to be logical, focusing on analysis while neglecting understanding, and thus lack sufficient aesthetic literacy. The core teaching objective of design composition is to enable students to master the laws of formal beauty and apply them flexibly in design. However, for many industrial design students with a science and engineering background, the laws of formal beauty often seem too abstract. They find it difficult to understand this concept, let alone apply it to actual design. Moreover, the existing teaching model is mainly based on "teacher-explanation + student-production", with evaluation standards mainly focusing on the quality of the work. It overemphasizes technical training and the application of standardized principles, neglecting the cultivation of students' visual perception, innovation ability, and aesthetic ability. This is not conducive to the development of students' aesthetic and innovation capabilities.

3. WAYS OF EXPANDING THINKING IN DESIGN COMPOSITION

In the Design Composition course, the expansion of thinking is a key element in cultivating students' creativity and practical abilities. To break the constraints of traditional teaching models on students' thinking, it is particularly important to expand thinking in various ways. By collecting materials from multiple sources, abstracting and simplifying, and interacting and communicating, students can not only stimulate creative thinking but also effectively combine theoretical knowledge with practical creation, thereby enhancing their comprehensive design abilities. Next, we will discuss in detail these ways of expanding thinking and their applications in Design Composition.

3.1 Expanding Thinking by Collecting Materials from Multiple Sources

Outstanding works often originate from the author's in-depth thinking and are closely related to their environment and life experiences. In the Design Composition course, many students usually adopt several ways to collect materials when creating. The first method is to consult relevant books and online resources and organize and integrate materials. Although this approach can provide some references for the work, the final creation often appears more standardized, filled with traces of imitation and reference. Therefore, the originality and depth of the work are relatively

limited. The second method is to obtain inspiration from life, transforming these perceptions into practical creations through the rational induction and refinement of perceptual thinking. This method usually enriches the thematic connotations of the work and presents a more profound ideological nature, which also reflects the difference between "soulful" and "soulless." In addition to conventional books and online materials, creators can also draw inspiration from nature, such as recording natural phenomena like sunshine, rain, and bird songs, or keeping diaries to record their keen perceptions and emotional responses to the surrounding world. These are all effective ways to expand creative materials. In summary, inspiration comes from life, but the height of creation should transcend life itself.

3.2 Expanding Thinking through Abstraction and Simplification

Regardless of the style of the students' works, whether abstract or figurative, the design theme should contain thought-provoking connotations. Compared with the mastery of creative techniques, it is more worrying that students are numb to life or lack emotions. Techniques can be improved through practice, while the lack of emotion may lead to the creator's inability to produce meaningful works. For example, a student who has a strong aversion to tobacco combined cigarettes with the image of a skull in her creation. She used the form of points to dot the cigarettes into the outline of a skull, thereby showing the harm of smoking to health. This creation fully reflects the depth of the theme. Another student chose the zipper as the theme of his creation. He abstracted and simplified the shape of the zipper teeth and used black-andwhite contrast to show the simplified saw-tooth shape of the zipper. Although these two works have their own characteristics in the picture, the former's delicate point composition and the latter's simple black-and-white plane composition both have certain artistic expressiveness. However, when the theme of the work is revealed, the audience's reactions are completely different. The work that shows the harm of smoking to health triggers more thinking through its intuitive visual effect and profound theme connotation. The other work, on the other hand, has a weaker theme. Although it has a strong visual effect, it fails to arouse the same thinking. Therefore, the depth of the theme directly affects the resonance of the work and the audience's emotional response. A clear and meaningful theme is always the core of creation.

3.3 Expanding Thinking through Interaction and Communication

The term "interaction" means mutual influence and promotion between each other, while "communication" refers to the process of both parties understanding and reaching each other's thoughts, thereby generating beneficial opinions and promoting common progress. Whether it is interaction among students or communication between teachers and students, it is a process of exchanging and colliding ideas. Through effective interaction and communication, students can broaden their thinking horizons and re-examine their creations with a more open attitude, thereby viewing the works from a more diverse perspective. In the teaching process, building such a bridge of communication can not only provide students with new ways of thinking but also bring new perspectives and inspiration to teachers. However, many students often lack the awareness of actively communicating with teachers or classmates during the creative process, especially after completing the work, which leads to their themes and ideas for the work not being fully understood and fed back. This absence is regrettable. Therefore, teachers should take the initiative to communicate with students, understand their creative intentions, and help students deepen their thinking and further improve their works through feedback and suggestions.

3.4 Expanding Thinking through the Accumulation of Practical Experience

The process of creation is full of novel ideas and infinite possibilities. Students often throw themselves into it with high expectations, hoping that the work will be realized as expected. However, the implementation of ideas cannot be separated from solid practical skills. In communication with students, the author has found that many students have rich ideas in their minds, but often fail to achieve the desired effect in practice. This is mainly because they lack sufficient practical experience. To help students overcome this problem, teachers should patiently guide students to complete various technical operations in the creation and give timely corrections and suggestions in the process. Only through continuous practice and accumulation can students truly master the necessary skills and turn their ideas into high-quality works. "Design Composition" requires students to have both the ability to think independently and the ability to skillfully operate various tools and techniques.

Only by combining thinking with practice can students continuously improve in creation.

4. RESEARCH ON INNOVATIVE PATHS IN DESIGN COMPOSITION

In today's field of art and design, innovation has become an indispensable force in promoting design development. As a core course in design learning, the exploration of innovative paths in Design Composition can not only improve students' design abilities but also provide strong support for their future creations. The innovative thinking in Design Composition is reflected not only in the improvement of practical skills but also in the continuous expansion and deepening of design concepts and creative methods. This paper discusses how to cultivate students' creative thinking and promote the development of their design practice abilities through the innovative paths of the Design Composition course from several aspects.

4.1 Artistic Conception Training in Design Composition

The ultimate goal of an art work is to convey a specific artistic conception through various forms of expression. Artistic conception refers to the profound emotions and thoughts that an artist displays through his or her work. These emotions and thoughts not only stimulate the audience's senses but also directly touch their hearts [2]. In order to effectively express artistic conception in the teaching of design composition, it is necessary to guide students to learn how to integrate emotions and thoughts into their creations.

In design composition teaching, the realization of artistic conception can be achieved through various means. For example, by associating with natural forms, students can draw creative inspiration from various beautiful elements in nature. The forms of nature, such as the growth of trees and the blooming of flowers, all have unique beauty, which can provide rich compositional materials for design. For example, the free extension of tree branches symbolizes the beauty of vitality and vigorous growth. Using these natural elements in compositional works can effectively convey the artistic conception required by the work.

In addition, the use of abstract forms can also effectively guide students to create works with profound artistic conception. The abstract

geometric forms in design composition, such as points, lines, planes, and volumes, can evoke psychological feelings in the audience and convey different emotions through changes in shape, color, texture, and surface quality. For example, the use of points can convey a sense of concentration and contraction, forming a visual focus; the climbing growth of vines can express the artistic conception of entanglement and extension; and the chameleon's ability to change its body color to adapt to the environment can also trigger associations with adaptation and concealment. Therefore, the application of abstract forms not only transcends the limitations of the concrete but also brings more layers of emotion and artistic conception to the work, making the creation in design composition teaching more diverse and rich.

4.2 Cultivating Innovative Design Thinking from the Ability to Abstract Forms

Whether it is plane composition, color composition, or three-dimensional composition, the core goal of the design composition course is to cultivate students' design thinking and creativity. In the process of achieving this goal, the first key issue to be addressed is how to guide students to shift their perception of form from the concrete to the abstract [3]. Forms in design often originate from a high-level generalization of natural objects and are abstracted as basic design elements for application. The composition course uses abstract elements such as points, lines, planes, and volumes to help students explore new forms of beauty through various compositional relationships, showing strong abstraction and formal sense [4].

The sources of these abstract elements mainly fall into two categories: natural objects and manmade objects. Natural objects include forms that exist in nature, such as mountains and waters, animals, and plants. Their shapes, textures, and colors provide a rich source of materials for design composition. As a scholar has said, "All formal laws exist in nature, and most forms of art and design are summaries and developments of nature." However, influenced by traditional realistic painting training, first-year students often face great challenges when applying abstract elements to design in the composition course. Therefore, the teaching process needs to help students effectively transform these abstract elements into design language by analyzing and summarizing the formal beauty in nature.

In teaching practice, teachers can help students shift from concrete to abstract thinking in various ways. For example, the structures of plants in nature, dandelions in the breeze, and lotus seeds in the lotus pod can all serve as sources of elements in compositional teaching. By guiding students to analyze these natural forms and their structures, they can understand the abstract concepts behind them and apply them to their design works. Moreover, the relationship between natural phenomena and geometric forms, such as the hexagons in honeycombs, the rhombuses on the surface of pineapples, and the golden section in snails, can also help students establish connections between the concrete and the abstract.

Through this series of training, students will gradually shift from traditional concrete thinking to a more generalized and abstract way of thinking, mastering how to discover and apply the laws of formal beauty in natural and real-life objects. This transformation can not only enrich students' ways of thinking and broaden their horizons but also lay a solid foundation for their future performance in professional design courses.

4.3 Diversification of Compositional Forms of Expression

The diversity of modern tools provides us with a broader space for formal expression [5]. However, many art and design colleges and universities still mainly rely on hand-drawn assignments in plane and color composition courses, while three-dimensional composition often uses cardboard. This traditional approach causes students to invest a large amount of time and energy into drawing and paper-folding tasks, often neglecting in-depth thinking about compositional forms and creativity. This is not conducive to the cultivation of innovative thinking and may even suppress the development of students' creativity.

To change this situation, compositional teaching can guide students to try different materials and methods of expression to complete their design works. This approach can not only help students save a lot of drawing time but also promote their thinking expansion and innovation training. In this way, students can complete tasks in a shorter period of time, thus having more energy to devote to the process of conceiving ideas [6]. In three-dimensional composition, students can use natural materials such as tree roots and branches to represent accidental forms, which can not only

bring unique artistic effects but also enhance the expressiveness of the works.

In addition, digital tools such as Photoshop and CorelDraw drawing software can replace repetitive, variant, and similar forms in traditional compositional assignments. These tools can effectively save time and improve the quality of assignments, allowing students to focus more energy on conception and innovation. Through these diversified forms of expression, students can not only explore the relationship between materials and forms in depth but also stimulate richer creative inspiration by getting closer to nature and life. Therefore, the diversified forms of expression in compositional teaching provide students with a broader space for creation, which is conducive to enhancing their innovation ability and laying a more solid foundation for their future design practice.

4.4 Strengthening Practical Training to Cultivate Innovative Design Thinking

The objective of the Design Composition foundation course is to foster students' creative design thinking and innovative awareness, providing them with a solid theoretical basis for their future design practice. In this process, teachers need to deepen their understanding of the Design Composition foundation course and closely monitor industry trends. By communicating and learning with design teachers from other universities, and leveraging emerging elements and media, they can break through traditional methods and stimulate innovative thinking. To achieve this teaching goal, teachers should guide students to shift their thinking from concrete forms to abstraction, encouraging them to generalize things in nature and extract elements that serve as basic design forms

The Design Composition course emphasizes that students use basic compositional elements, such as points, lines, and planes, to express new aesthetics through reasonable compositional forms and to enhance the abstraction and formality of their works. The abstract elements in composition mainly come from two types of objects: natural objects and man-made objects. Natural objects refer to the inherent forms in nature, such as landscapes, animals, and plants. The richness of these natural forms in terms of color, texture, and structure provides an endless source of inspiration for compositional design. Nature itself contains various

formal rules, and art and design are mostly summaries and extensions of these natural laws.

However, for beginners, especially those without a background in fine arts, integrating abstract elements such as points, lines, planes, and volumes into design works is not easy. The ultimate goal of the Design Composition foundation course is to help students achieve a shift in thinking from the concrete to the abstract. For example, the radial structure of plants can express a radiating effect in composition; the form of dandelions dispersing in the wind symbolizes the concept of diffusion; and the lotus seeds in the lotus pod can represent points in three-dimensional composition. These elements from nature provide students with a wealth of materials to help them transform concrete elements into abstract artistic expressions through design techniques [8].

When students first create in the Design Composition foundation course, they can start with common elements in nature, combine them with their own design concepts, and express them in innovative ways. For example, the hexagonal structure of honeycombs, the rhombic texture on the surface of pineapples, the golden section form of snails, and the geometric characteristics of various crystals can all serve as sources of inspiration for compositional design. These forms and geometric shapes have similar characteristics, and students need to learn to summarize and generalize these elements to develop their own design language.

Through these basic exercises, students will gradually shift from a concrete understanding of forms to an abstract way of thinking and be able to summarize the aesthetic laws and formal rules in nature. This training not only helps improve their design thinking ability but also supports the expansion of their design horizons, thus laying a solid foundation for the next stage of professional course design.

5. CONCLUSION

Through effective teaching strategies, students' innovative thinking is enhanced, which lays a solid foundation for their subsequent design learning and in-depth development in the field of art and design. Therefore, the Design Composition course is not only about learning techniques and methods but also a comprehensive training of students' ways of thinking, providing them with rich tools for thought and space for creation in their future design work.

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