Teaching Research of Textile Design Professional Education Based on the Mode of Cultivating Creative Talents

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ABSTRACT

Based on the mode of cultivating creative talents and practice of teaching, this article summarized some new teaching methods in Textile Design professional education like enhancing general education, training of divergent thinking, case teaching, PLA teaching modes, reinforcement practice teaching activities and so on, which can cultivate students’ creative thought.¹

INTRODUCTION

Higher professional education for fabric talents should keeping pace with the times, replacing traditional skill with innovation talents cultivation mode, reforming course system and teaching methods, improving students’ innovation thinking and ability, supporting “motive power” for our country’s textile fabric Innovation.

Innovative Textile Designer’s Knowledge Framework

Innovative textile designer’s knowledge framework include: general knowledge, specialized skills and innovation quality as shown in Figure 1. General knowledge comprises basic career morality, product’s common knowledge and design method, related trade standard, marketing, relevant national laws and regulations. For the part of professional skills, designer needs to create

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product skillfully, make sure textile’s performance and style, achieve overall conception and specifications, technology, art design and color design to fabric according to the product application, using object, market demand and enterprise producing conditions. While general knowledge and professional skills belong to skilled knowledge system, quality of creativity includes innovative consciousness, creative thinking and innovative ability. It is a kind of creative thinking pattern, which transmitting a feeling, a philosophy, a concept and a potential awareness. It asks the designer having passion to pursuit science and truth, keeping an eye on reality and advanced academic character. Besides, enormous hunger for knowledge, strong heart, courage of "Dare for the World First”, scientific doubt, open mind and term-wok spirit are also necessary. So, innovation quality is not only core and root of this framework, but also the soul of product design[1].

**Teaching Study of Textile Design Course Based on Creative Talents Cultivating Model**

**STRENGTHENS GENERAL EDUCATION AND FORMULATES CREATIVE COURSE SYSTEM**

An excellent textile work must be a perfect combination of art and skill. It is both consummate professional knowledge and profound culture connotations. That’s why designers are asked to be professional and extensive in knowledge.

So far, textile design profession is classed as engineering. Considering of the situation, profession courses set stresses importance of technology design and ignores art thinking training. That’s the reason why our country’s fabric designers are poor in culture and artistic accomplishment. Low level of aesthetic and out-of-date design concepts lead to works with superficial culture, which only shows simple, rigid even wooly creative thought. Good education of textile design are organic combination of art and engineering, tighten up color using, enrich pattern design teaching, make more product style design teaching content, and widen talents’ knowledge structure.

![Knowledge framework of innovative textile designer](image)

Figure 1. Knowledge framework of innovative textile designer.
ATTACH IMORTANCE TO THE ADVANCED TEACHING TECHNOLOGY AND DIVERSIFIED TEACHING METHODS AROUSE THE CREATIVE THINKING OF STUDENTS

The advanced teaching technology is an effective way to develop the innovation capability of students. When developing the innovation capability of students, it is very important to inspire them and make them to be influenced unconsciously, enhance their ability of thinking and analyzing, leading them to learn how to apply the innovation to their design via various methods.

The Training of Divergent Thinking through Teaching

Divergent thinking refers to the process and method of thinking to the same question through different aspects and angles, including scope extending, deeper exploring and contrary comparing. With its multidimensional features, it can obtain one or several reasonable assumptions and guesses [2]. In the professional teaching process, a novel textile could be development, according to graft one theory, phenomenon and style to another design by divergent thinking by analogy. Therefore, many textile design have drawn their inspiration from nature by bionics, for example, grate the pattern of bark which is rough, uneven and wrinkled to the textile to develop a kind of “bark pattern textile”; develop the “self-cleaning textile” by the awareness of self-cleaning phenomenon of lotus leaf as shown in Figure 2[3], innovate the fast skin swimming fabric by sharks skin. Through the flexible thinking training, the students can be free of the limit and negative effect of a certain thinking model.

Case Methods in Teaching

In teaching activity, teacher can make students study and research classic cases. Letting students think positively and develop voluntarily in specific situation through case teaching methods and case analysis, which can cultivate students’ comprehensive ability and quality. For example, from the imitation silk fabric to the final super silk fabric, Japanese new synthetic fiber polyester fabric has developed for four generations. Teachers can tell students how to find new technology breakthroughs of the fabric design in each stage step-by-step, show them the fabric performance design of new technologies and new techniques, help students gain understanding and awareness of the fabric performance design of the basic principles and methods, inspire students' pioneering thinking way, improve students’ textile fabric design and innovation capability, and encourage students to participate in class discussions.
Teaching Model Based on PBL (Problem Learning)

PBL forms a new textile education model which is different from traditional mode because of its special course, teaching form of organization, teaching process and teaching method. PBL teaching mode is characterized by replacing traditional teaching mode “organizing teaching, reviewing old lesson, having new lesson, consolidating new class, homework, etc” with five stage teaching – “raising question, establishing hypotheses, data collection, hypothesis testing, summary” as shown in Figure 3[4]. In course teaching, make every 3 to 5 students as a group and give each group a question target. Those targets could be how to design a child’s living clothes according to European environmentally standard or how to improve the anti-fuzzing and pilling property of a blend wool fabric. In this mode, students need to learn with question, cooperate with members, search information, write report and communicate in class; teacher could give critiques at the right moment. Through the teaching model “question-students self-study-results-application”, students would consummate their textile design knowledge structure constantly in the process of learning, arouse their initiative and creativity, expand the breadth of thinking, improve the level of thinking, inspire their thinking, and strengthen team spirit. But more important is this mode can make students master how to learn and solve problem.

Figure 2. Bionic theory of lotus leaf-like self-cleaning fabric(a. self-cleaning phenomenon of lotus leaf; b. microscopic structure of lotus leaf; c. microscopic structure of lotus leaf-like fabric; d. self-cleaning textile).

Figure 3. Teaching model based on PLB.
CULTIVATE STUDENTS’ CREATIVE THINKING IN THE PRACTICAL TEACHING

The cultivation of innovative talents needs to teach students the study method to solve practical problems. In teaching and learning process, the design practice is the key. Through the curriculum design and practice, lay stress on cases and treat them as real project. Such as, ask students to create a popular textile simple or a new product design plan and practice it in design process according to the current market popular trend. At the same time, encourage students engaging in shows all kinds of competitions to wide their view. Besides, let students enter into corporation and know well how to combine design with produce, technique and economy. These, will bring them up as talents with multi-disciplinary background knowledge and vision of thinking mode.

CONCLUSIONS

“The possibility of success is made by talents and the business is broadened by talents”. During teaching, only when the new idea of the modern society which can arouse the interest of students, active the thinking of them, explore their potentiality, boost the development of their personality and develop their operating skill, is used in teaching, as well as the development of elementary knowledge, skill and quality, can it be possible to educate innovative talents who can meet the requirements of the times.

REFERENCES