

# Discussion on the Practical Teaching of Garment Design in Digital Simulation Technology<sup>1</sup>

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**Abstract:** With the rapid development of science and technology, clothing design major has ushered in a new opportunity for development. Colleges and universities integrate the modern technology into the professional teaching, adjust the teaching structure, improve the teaching quality, optimize the professional courses of service design, and improve the ability of the design professionals from the perspective of practice. Digital simulation technology is a modern and comprehensive technology, which is to transform all kinds of information of clothing into the form of digital storage, operation, modification, transmission, presentation, transmission, etc. , combined with the functions of computer equipment, to provide the network digital technology means for dynamic or static test. Through the combination of digital simulation technology and fashion design major, we can improve the operation ability of professionals, optimize the production, design and management links, and also improve students' interest in learning. This paper adheres to the problem orientation, in view of the current situation of clothing design, and puts forward several strategies, hoping to promote the modern development of the industry.

**Keywords:** Digital simulation technology; Fashion design major; Practical teaching

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In recent years, the state has focused on promoting industrial digitalization and promoting the digital transformation of the industry. The digital transformation of textile and clothing has become a general trend of the industry. We should accelerate the integration process of digitalization and professional integration to drive the development of the industry. Digital technology is an application of science and technology, and also the most direct way to present the development of clothing design. Through the digitization of clothing information, the establishment of digital model, the model for creative design, optimization and update, so as to more meet the needs of the market, so that people have more diversified demand choices. With the combination of digital simulation technology and garment design major, it has promoted the development of various universities in the major, and the scope of research and practice application of digital technology has been continuously expanded, driving the development of the garment industry towards the direction of intelligent, three-dimensional and rapid response.

## 1. Current situation of digital technology of fashion design

### 1.1 3 D anthropometry

3d anthropometric measurement is one of the most typical projects in the application of clothing digital technology at the present stage. It has the characteristics of high precision and fast speed in the practical application, and can provide users with personalized and customized services for them. This technique is developed by using a photosensitive device to capture the images formed on the human body by the light projected from the device to the human surface. This method is more advantageous than the traditional manual measurement, saving time, reduced cost, and higher accuracy. The data measured through the technology is also more authentic and effective, which can help establish the human body database information and provide support for human body quantification and clothing design. At the present stage, the world's three-dimensional human body scanner equipment developed in the United States and Germany is relatively complete, while China still needs to continue to

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learn and improve.

## **1.2 Artificial intelligence technology**

Artificial intelligence technology is another important digital technology of clothing design industry, through the clothing information collection on the market, the analysis of design, style, color, summarize the market fashion trend changes and consumer consumption preferences and demand change, and then according to capture the information to predict the popular trend, provide effective power for the clothing industry. This way of technology in large clothing companies use more, such as France has a special forecast the trend of companies, provide help for brand, many companies use artificial intelligence clothing image change analysis on the market, predict the next season fashion color and pattern, can help the company in the future strategic planning, provide popularity information for brand, provide clothing design data information, so as to improve the characteristics of the industry, improve the rate of hot style market.

## **1.3 Virtual simulation technology**

Virtual simulation technology is a form of modern science and technology, which is to obtain three-dimensional data of human body through measurement, and use technology to establish three-dimensional model, which is also a technological transformation, and the reform of traditional clothing design technology, so that the modern clothing design is more interactive and simulation. In the application of virtual simulation technology, it is more convenient for designers to modify, accurately adjust the design scheme, help shorten the design cycle and design cost, and also help consumers to directly show the effect of the garment upper body, and present the simulation image of the garment upper body through the simulation technology, so that customers can see the final effect and reduce the waste of resources. This method is widely used in the United States and South Korea. Combined with visual clothing design software for brand companies, retailers and consumer platforms, presenting various kinds of clothing body effects, providing convenience for consumers' virtual shopping and promoting market-oriented development.

## **2. Problems existing in the teaching of college fashion design courses**

### **2.1 The curriculum system of fashion design major is outdated**

At the present stage, colleges and universities have not formed a system in the fashion design major, the curriculum system is relatively old, it has no characteristics, it is not conducive to students' professional learning, and it is difficult to cultivate modern skilled talents. Most of the courses in fashion design in colleges and universities follow the traditional curriculum mode, the update speed is slow, the course content is relatively traditional, not integrated into the latest fashion information in the market, not meet the current market demand, not update the modern design concept, and the classroom is not coordinated with each other, which does not meet the development needs of students. In addition, many students have not received professional study before entering the school, and they do not have much contact in clothing design, less experience, and insufficient knowledge storage in the early stage. Many universities ignore the actual development of students in teaching, and ignore the actual situation in setting up courses, resulting in the slow development of the curriculum system.

### **2.2 Theoretical courses and practical courses are not coordinated**

New economic model, colleges and universities to cultivate the theoretical knowledge quality, practical knowledge of talent, it must be theoretical knowledge and practice teaching, cultivate students 'design ability, production ability, however, at present major universities in design professional courses, uncoordinated theory course and practice course design, is more focused on the theory course, in the teaching evaluation on the basis of theoretical knowledge, examines the students' theoretical level, ignored the practice course training, lead to the students' practical ability and practical ability is poor. Through the course survey of colleges and universities, it is found that the course class focuses on the design of professional theory course, lacks practical courses, cannot meet the practical requirements of students, consolidate students 'theories, and even has the problem of students' high expectations, which is difficult to adapt to the changes of the market after graduation.

### **2.3 The digital technology knowledge system is relatively single**

Digital technology in the teaching must use the computer to complete, the lack of digital expression, and digital knowledge through other courses, with a single, currently most schools are still in the course software teaching process, focus on the students 'digital technology knowledge learning, but ignored the fusion with other disciplines, ignored the students' innovation ability training. Digital technology studies the trend of clothing in the market, but sometimes it pays too much attention to the appreciation of clothing and ignores the value of clothing itself. Therefore, it is necessary to strengthen the teaching reform of clothing design major, deeply explore the value of design itself, and consciously and purposefully cultivate students' ability.

### **3. Application way of digital simulation practice teaching in fashion design major**

#### **3.1 Cultivate compound talents majoring in fashion design**

In view of the teaching situation of fashion design in colleges and universities, the integration of simulation design technology in universities can cultivate compound talents in fashion design, improve their professional ability, practical operation ability and design ability in teaching practice, and truly cultivate talents that meet the needs of modernization. Clothing design professional curriculum increased the core plate, including clothing structure drawing, clothing design, clothing art foundation, etc. , teachers focus on integrating in the course of simulation technology, such as digital science and technology, analysis of knowledge, targeted training field skills, adjust the learning mode, consolidate the basic knowledge, improve the practical ability. Especially in the national education background of "integration of industry and education, collaborative education", colleges and universities adhere to the digital teaching mode, start from the market demand for fashion design talents, take the new economy and new industries as the help, cultivate fashion design professional talents, create a modern talent mode, and form an education platform for mutual integration of industry and education. In terms of cultivating talents, colleges and universities pay attention to creating the complementarity of virtual and real conditions, build a digital education platform, and form compound talents combining art and industry.

#### **3.2 Establish a digital practice teaching platform integrating school and enterprise**

When cultivating garment design talents, colleges and universities should pay attention to the practicality and skill of talents, which requires the establishment of digital practice teaching mechanism. Through cooperation with enterprises, school-enterprise cooperation platform can provide practice base for designers and cultivate more excellent skilled talents. The fashion design major in colleges and universities should combine school course education and teaching with enterprise practice training, take ability teaching as the core point of education, exercise students' design ability in practice, and provide students with a real design environment, so that students can experience the changing trend of the market, accumulate design experience, and improve their design ability. Colleges and universities should improve the training base, give full play to the advantages of enterprises, build an off-campus practice platform, optimize the internal and off-campus resources, integrate the utilization, and build a practical curriculum system with artistic creativity as the guide and digital technology as the support. In teaching, college teachers should pay attention to the application of digital technology, adhere to practical teaching, build a modular teaching mechanism, strengthen the integration between art and technology, infiltrate practical training in course teaching, and cultivate a group of compound talents with excellent professional skills, superb artistic design ability and mastery of digital technology.

#### **3.3 Build a virtual simulation practice teaching platform**

Under the background of digital economy era, colleges and universities in cultivating talents to the new industry development mode, build virtual simulation practice teaching platform, according to the clothing market digital chain, create a complete ecological development model, from art basic learning, digital design, intelligent manufacturing production, to live the whole industry chain of the marketing, modern technology virtual simulation practice platform, help college students learn theoretical knowledge, cultivate practical skills, provide new ways for talents, provide guarantee for clothing digital development. When establishing the simulation virtual platform, colleges and universities should pay attention to combining the actual development of the university, the actual learning situation of students, and the talent training objectives of the major, and integrate the current development status of the clothing market, to provide platform support for talent training. The virtual teaching platform can also include clothing digital design platform, clothing intelligent manufacturing experiment platform, clothing simulation design platform, clothing design practice platform, etc. Through various forms of practical training, the design ability and practical ability of professional talents can be improved.

#### **3.4 Build a modular digital teaching curriculum system**

When cultivating fashion design professional talents, colleges and universities should build a modular digital teaching classroom system, set up courses to pay attention to the comprehensive development of students and skills, and not only learn theoretical knowledge, but also strengthen the learning of practical skills. Modular digital curriculum system to adhere to the digital skills design as the foundation, practice training as the core, attach importance to the combination of course learning and technical engineering, improve the students' creative design ability and digital technology application level, from clothing design to the production link, from innovation ability to application ability, get learning and improve, change the traditional clothing learning mode, create in line with the future development trend of course pattern, cultivate professional talents. Col-

lege teachers also combined with the digital technology model on the market in the classroom build digital learning platform, combined with digital technology for three-dimensional data, teaching digital design skills, training design skills, provide intelligent cutting production of experimental teaching, train students to use digital technology to solve the problems in the clothing design market, creative design novel style, meet the demand of the market.

### **3.5 Improve the management system of the school's virtual simulation platform**

In the management of the virtual simulation platform, modern colleges and universities should establish and perfect the system, implement the management of the fashion design major to the people, improve the rules and regulations of the school, guarantee the construction of the professional system, realize the professional management of schools and enterprises, and promote the modern development of the digital platform. In addition, the school can also according to the actual situation, establish evaluation system, using the evaluation mechanism to promote the supervision and management of simulation virtual platform, for the school design students 'theoretical knowledge and practical ability to supervise and examine, focusing on the students' design ability, technology ability, comprehensive evaluation of digital technology means, attach importance to the practice teaching effect, emphasize the process evaluation, establish diversified evaluation scheme, improve the quality of practical teaching.

To sum up, in the era of digital economy, colleges and universities should integrate professional courses with practical teaching in teaching, and combine virtual simulation and digital technology in classroom teaching to improve students' professional ability, which meets the needs of market development. Although, there are some problems in the curriculum, but to combine the actual development status of students, looking for problem solution, cultivate clothing design professional talents, build modular digital classroom system, establish the integration of digital practice teaching platform, build virtual simulation practice teaching platform, establish and improve the classroom management mechanism, improve the teaching effect of the school teaching.

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