

Application Analysis of Virtual Fashion in Fashion Design Course

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Abstract: In the context of network social media, interactive game animation, virtual characters, virtual costumes in virtual idols are also getting more and more attention. Virtual clothing technology is not a simple technology display, but a combination of computer, mathematics, physics and other disciplines to create lifelike and dynamic cloth in virtual clothing, from the simplest cloth deformation simulation to three-dimensional dynamic simulation. Virtual clothing has changed the traditional clothing production mode and adopted the virtual clothing display technology to realize the environmentally friendly, efficient and environmentally friendly display. This paper explains in detail the application of virtual fashion in fashion design course defines and summarizes the relevant knowledge and application of fashion design, virtual fashion and digital fashion design. Through the questionnaire, it verifies the extensive application of virtual fashion in fashion design classroom and the advanced nature of the traditional classroom.

Keywords: Course, Virtual Fashion, Clothing Design, Application Analysis

1. Introduction

With the continuous development of Internet technology and the rapid development of user-based social networks, virtual communities and new public opinion leaders emerge. These new public opinion leaders have a great influence on the lifestyle, interaction mode and consumption behavior of users in different fields through microblog and live broadcasting platforms. This phenomenon has also received great attention in the world. On this basis, research on the concept identification and identity transformation of new types of opinion leaders shows that public opinion leaders active in virtual communities have strong originality and continuous participation. They have a wide range of professional knowledge, active in fitness, fashion, technology, food and other aspects.

A large number of experts combined with Internet technology to put forward various effective theories in various fields of the clothing industry. Townsend K Two complementary approaches, explanatory phenomenology and action research, are used. Innovation / Value this study facilitates the design of practical-based mature women and new inclusive business models based on emotional persistence. Innovative methodology has contributed to the fashion design of ethics and sustainable development [1]. Ju H K Introduce a kind of end-to-point virtual clothing display based on the antagonistic network. The technology only requires the user to input the required clothing sketch and pictures of the fabric, to quickly and automatically display the appearance and texture of the clothing. In addition, this method can also be applied to the appearance, clothing and other aspects of clothing, further improving the reusability [2] of clothing design. Zhao L Using big data and digital processing technology, fashion designers can determine the characteristics of popular fashion in the market, predict fashion trends, and design them accordingly. Through the virtual fitting of scanatar, parameterized manikins, and even real humans, customers can quickly and easily find the fashion [3] that best meets their tastes and requirements. However, the above research is only used in the garment industry, and has not become a professional means to form relevant systematic knowledge for dissemination in college classrooms.

This article will explain the use of virtual fashion in professional colleges and universities in the classroom, and have a great impact on the students of related majors, and increase the higher level of fashion design for the future practitioners engaged in the fashion design industry.

2. Virtual Fashion and Clothing Design

2.1. Clothing Design

The ancient people used clothes to cover their bodies, playing a decorative role in keeping warm, covering shame, protecting and status. Therefore, the protective layer and performance layer of clothing are layered, which can not only play the protective role of keeping warm and preventing scratches, but also achieve beautiful and identity performance through the appearance of clothing. In the new social background, people pay more and more attention to the expression of clothing and personality, the rise of social media, has become an important way for people to show their personality [4].

2.2. Virtual Fashion

Definition: Virtual fashion originally originated from the field of games. Similar to the physical popularity, it is a cultural and industrial phenomenon, in which the virtual appearance of virtual characters is replaced by the virtual digital form, which is a combination of popularity and games. With the continuous development of various digital virtual technologies, as well as the digitalization of industry, the boundary between virtual and physical is gradually fading, thus promoting virtual fashion from games to real, and then to fashion. Virtual fashion is the application of virtual reality, AR, CG and other virtual technologies in the fashion industry. Combining popular visual effects with virtual digital technology is an effective and sustainable fashion design, as shown in Figure 1, [5].

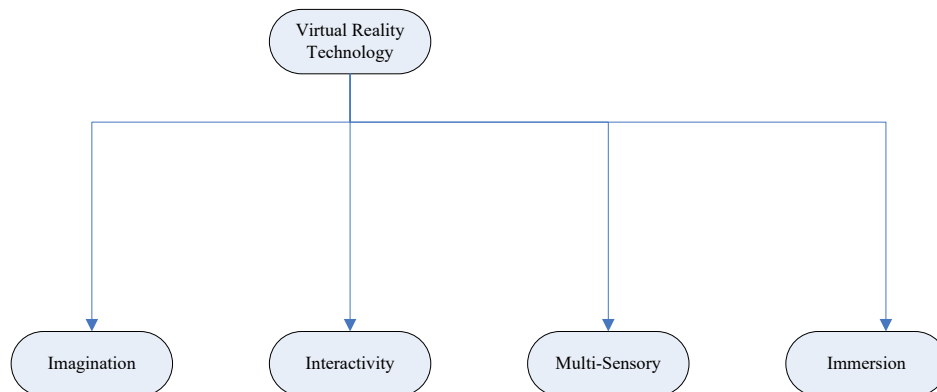


Figure 1: The characteristics of virtual technology applied to clothing.

The rise of virtual fashion is a new way of network environment expression, which is composed of the image of the wearer or the symbol expansion of the body, so as to achieve the same instant satisfaction as traditional clothing, form identity and attract people's attention. Virtual clothing is a fashion product that does not need to be produced, and it cannot play a role in protecting the human body [6]. Therefore, the characteristics of the protective layer and the expression layer of the clothing are separated. The design of virtual clothing is no longer limited to the restrictions of body, function and gender, but to the re-examination of users' clothing through game characters and social media.

Digital clothing design

Concept: Digital technology is based on the computer as the core, and its application in clothing design is mainly realized by the use of computer and related technology. A significant feature of the computer is its accuracy, so the use of computer technology for the digital design of clothing can improve the accuracy of clothing, which is the past clothing design can not achieve, its characteristic is: its structure, color collocation, material choice.

Digital clothing design

Concept: Digital technology is based on the computer as the core, and its application in clothing design is mainly realized by the use of computer and related technology. A significant feature of the computer is its accuracy, so the use of computer technology for the digital design of clothing can improve the accuracy of clothing, which is the past clothing design can not achieve, its characteristic is: its structure, color collocation, material choice.

Applied technology:

CAPP system, also known as CAD technology system, is developed on the basis of CAD technology system.

1) CAPP system collects various data in the garment production process through CAD technology, and uses MIS, CIMS and other software, so as to better understand the production environment, process, personnel status and production cycle. With this information, capp systems can transfer valuable data to a computer, thus enabling automated process design.

2) Photoshop is one of the most popular graphics editing software, which is widely used in clothing style and clothing version setting can be adjusted according to the actual needs of the designer, so as to create a broad operation space for the designer and effectively produce graphics.

Whether the research and development of clothing products can achieve success requires the needs of target customers reflected in the data, in order to better understand and understand the development of products. Data is an auxiliary knowledge service, which helps designers to carry out design activities and enables practitioners in the garment industry to make more objective judgments on the design process. On the one hand, big data is a kind of information needed to obtain the design process, and its goal is identical with the traditional clothing design: based on the big data of the user, collect the investigation data closest to the user, restore the truth of its behavior and real motivation as far as possible, and transform it into the authenticity data guiding the design activities. On the other hand, the frequent use of the network and the massive data generated by various sensors can help designers to improve the efficiency of design innovation, reduce design risks and reduce design risks when solving design problems [7]. Design itself is a creative artistic behavior, which is based on strict data, which can solve problems through data analysis, but also be pleasing to the eye. Compared with traditional fashion design, the difference between fashion design based on big data.

1) With the consumer data and information as the center, increase the linkage between the design end and the end-consumer information

2) Consumer demand-oriented, instant improvement of clothing design

3) Use the digital environment to reduce the product cycle through feedback

In short, digital environment can improve the predictability of fashion designers and make up for the shortcomings of traditional research.

2.3. Application of Virtual Fashion in Fashion Design Course

In 2019, Changzhou textile and garment vocational and technical college established a virtual simulation laboratory, mainly including: human data, design, fabric, fitting, fashion design, fashion design and runway module, can complete the human model creation, design, sample trial, fabric replacement, dynamic runway, and other functions, as shown in figure 2 [8].

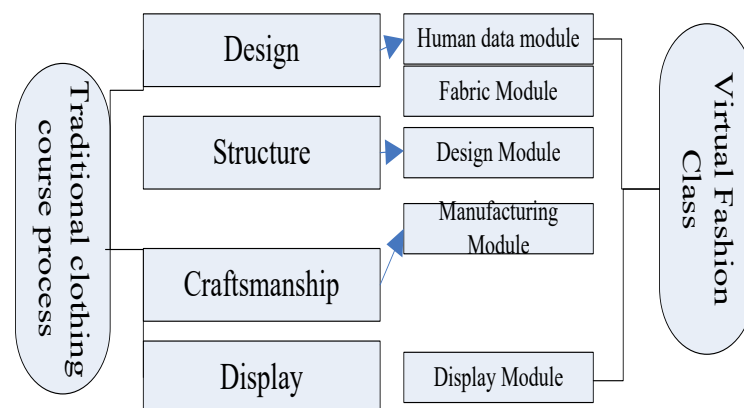


Figure 2: Classroom system of virtual simulation technology.

The clothing structure foundation course adhering to the OBE thought, with khalid ents, casting the soul education as the basic mission, pay attention to the students' learning experience and output, with stories, events, characters, architecture diversified ideological elements system, using the topic discussion, inquiry, practice multidimensional organization way to achieve the course objectives, ideological mapping and teaching design of beneficial exploration, formed the "same excitation, level

penetration" course practice characteristics, highlights the course ideological synergy, for the full coverage of ideological education in clothing education.

The "visualization" of virtual reality technology can help students better understand the basic principles and characteristics of the physical characteristics of fabric; make the use of fabric more intuitive; through the software interaction technology, students can try and experience the structure of clothes, so as to get first-hand experience. In this course, according to the students' learning situation, the corresponding syllabus is formulated, including: starting from the prototype, obtaining the basic structure, adding the structure, fabric, expansion, etc.:

3. Comparative Analysis of Virtual Fashion Class and Traditional Fashion Design Class

In order to obtain the virtual fashion in the application of clothing design classroom, understand the teacher teaching situation, promote the improvement of school teaching quality, the study on a large number of clothing design professional classroom teaching questionnaire, this paper issued 2500 course feedback questionnaire, received 2478 valid questionnaire, 22 invalid questionnaire. There are many feedback questionnaires in this class, and the recovery rate is high, which shows the authenticity of students' evaluation on virtual fashion [9].

Method introduction of the questionnaire

The staff of the research room organized teachers to directly explain the objectives, methods and requirements of the questionnaire to the students, distributed and recovered the questionnaire on the spot to ensure the recovery rate of the questionnaire, greatly ensuring the scientificity and objectivity, and better understand the students' true evaluation of fashion design compared with the traditional fashion design class [10].

School and date of the applicant

Survey question: Evaluation of the application of virtual fashion in the classroom

Fashion design professional test score

Score the teaching model

What are the most impressive parts of the evaluation teaching model?

Better advice for the costume design class

Finally, the results of the student questionnaire are summarized in Table 1. The obvious results show that the virtual fashion clothing design class is more popular than the traditional classroom model: the student evaluation is 80.6%, and the student evaluation is 17.1%. In the traditional model, only 53.8% of students are excellent. In addition, a large number of students show that the virtual fashion fashion design class makes students have a deeper understanding of fashion design, but modern fashion design students say that they need to learn to apply more CAPP system, Photoshop and CAD technology related to fashion design. As shown in Figure 3, 4.

The total number of valid questionnaires received is A; student score above 80 is excellent, and B; student score above 60; 80 is normal, and C; student score below 60 is poor, and D.

Excellent rating is EV; general rating is AE; poor rating is PE with the following formula:

$$EV = \frac{B}{A} \times 100\% \quad (1)$$

$$AV = \frac{C}{A} \times 100\% \quad (2)$$

$$PV = \frac{D}{A} \times 100\% \quad (3)$$

Table 1: Results of the student questionnaire survey.

Teaching Model	Excellent valuation	Average evaluation	Very poor evaluation
Virtual Fashion Class	80.6%	2.3%	17.1%
Traditional class	53.8%	10.1%	36.1% ⁰⁰

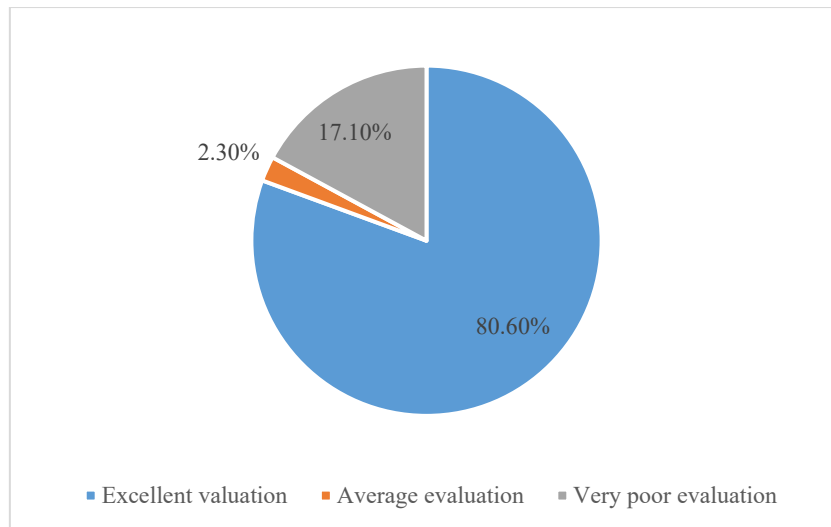


Figure 3: Student evaluation of the virtual fashion design class.

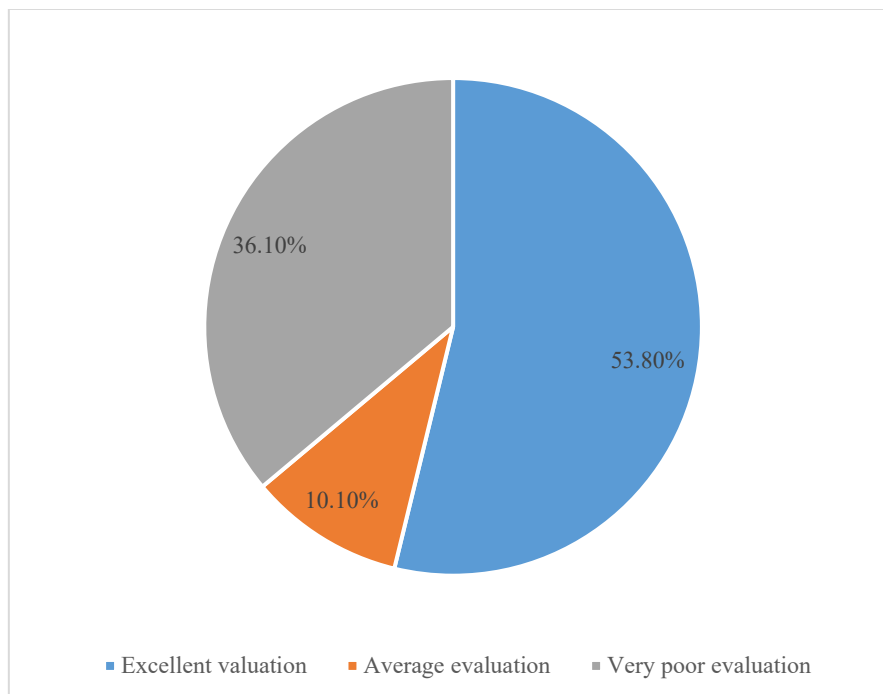


Figure 4: Student evaluation in traditional classes.

In short, in the new situation, applying cooperative learning in fashion design teaching is very important to improve the teaching effect and improve the teaching effect [11-12]. Therefore, in practice, teachers should adapt to the development of The Times, change their teaching methods and ideas, and take students as the main body, according to the actual learning status and personality characteristics of students, guide students to take the way of teamwork in English translation [13-14]. Cooperative learning can improve students' team spirit, improve the level of fashion design, and lay a good foundation for entering the society in the future [15-16].

4. Conclusion

Virtual fashion has gone deep into all fields of the fashion industry. The virtual show, virtual idol and virtual fashion have all had a huge impact on the traditional fashion industry and brought new opportunities to the development of clothing brands. In the face of the use of virtual fashion in the clothing design classroom, the application of virtual fashion in teaching, requires students to actively study the application of virtual fashion in clothing design classroom, make full use of virtual fashion teaching resources, optimize the teaching flow virtual fashion in fashion design classroom application,

rich teaching content, realize classroom teaching ecology, learning ecology, fashion in the depth of fashion designer classroom change, will be able to use information technology change traditional classroom virtual fashion in all aspects of clothing design class, use right, avoid too much of a good thing. The application of virtual fashion in fashion design classroom In fashion design class, the majority of professional virtual fashion applied teachers need to combine information technology with classroom teaching, apply virtual fashion to clothing design classroom, to make their behavior more clear. The application of virtual Fashion in clothing Design Classroom The application of virtual fashion in clothing design classroom.

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