Design Hand Drawing Expression Techniques Under the Background of Informatization

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Abstract: The soul of hand-painted design is creative. Wonderful hand-painted design attracts people's attention to the product and its content, impresses people deeply, improves the publicity effect of the product and enhances the attraction of the product. Creative thinking in hand-painted design is to create new ideas through imagination and association. This paper summarizes the development process of information application in hand-painted design, compares electronic digital technology and hand-painted design with examples, and analyzes and studies the production of product design from the application level of hand-painted art. On how to cultivate creative thinking and use information-based equipment to inspire creativity, this paper proposes to cultivate rich imagination and avant-garde creativity, control the picture rhythm, add characteristic elements in the hand-painted design, and make excellent hand-painted design works. At the same time, it is proposed that electronic digital drawing and manual drawing can not be used to make hand-painted design works to a certain extent It will not completely replace each other's artistic status. If we can combine the two effectively, we can achieve eye-catching publicity effect. It shows that the performance of information technology in the design of hand-painted technology can improve the performance of the design of information technology the conclusion of strength and technique.

KeyWords: Information Background, Design Performance, Hand-Painted Techniques, Design Research

1. Introduction

Hand painted performance is scientific, artistic and illustrative. At present, there is such a phenomenon in domestic education: design educators emphasize theoretical knowledge, but lack practical ability; those who have rich design practice are too divorced from the theoretical basis of internal design. Through the introduction of design display hand-painted theory system, this paper hopes to build a bridge between design theory education and design practice, combine theory with practice, provide theoretical basis for design practitioners, so as to better guide design practice, and add professionalism
and artistry to design practice, so as to avoid blindly paying attention to the convenience and convenience brought by software in the learning process. Simulation has lost the diversity, uniqueness and artistry of the design itself.

This paper combs and studies the performance effect of hand-painted design after using information tools, compares domestic and foreign researchers, and analyzes the new development and new opportunities of domestic and foreign research on hand-painted design under the background of informatization. In foreign countries, Johana and others used the method of analysis and literature survey to investigate the development of hand-painted design in the context of information technology and case analysis. They conducted a large number of interviews and studies on the changes and development of hand-painted design in different regions and countries. The best way to achieve the best state of design style [1]. Dolly conducted a follow-up survey on the work of many designers. After three months of research and investigation, the data and research results were analyzed by using the interview survey method. It was concluded that the efficiency and expressiveness of hand-painted design could reach an unprecedented high by using information tools [2]. Dougherty M conducted research and interview on the Internet for the students of different design schools to achieve better design effect with the help of information tools. Case study method was used to study the effect of information tools used by students of design department in graduation design. It was concluded that students of design department can obtain higher design under the premise of using information tools Graduation score [3].

The research of this paper is mainly aimed at how to improve the performance techniques of hand-painted design under the background of informatization. After many experimental studies and a large number of literature surveys, the research results and analysis results are integrated and analyzed. It is concluded that under the background of informatization, designers who carry out commercial hand-painted design can use information tools, which can greatly reduce work intensity and improve hand Drawing design details and expression, greatly improving the design effect.

2. Enhance the Design of Hand-Painted Works Under the Background of Informatization

2.1 Design Hand Drawing Teaching Design Under the Background of Informatization

The implementation of hand-painted design is closely related to the display effect of works. The better the environment, the more conducive to the development of information-based instructional design in practical business projects. However, many designers and design educators do not attach importance to the development of information technology teaching, let alone the investment in information technology. Many subjects do not have a strong awareness of the application of information technology to hand-painted design, and do not know that information technology has a icing on the cake effect on commercial design. However, if there is no relevant information resources as a support, designers are more difficult to master the relevant information technology software, and they always feel more laborious when making hand-painted works, which will let information-based hand-painted design There are many difficulties in promotion. Without certain support and attention, without the improvement of information environment, designers’ ability to learn and apply information technology is limited, which affects the practical application of information-based hand-painted design. Using information tools such as digital hand-painted books and other tools, under the effect of formula Gd, the design concept can be more accurately conveyed to customers

\[
GD = \sum_{2}^{5} 7 + 42
\]

Therefore, only from the material to the spirit, to give enough attention to the information-based hand-painted design, special funds to establish teaching resources database or information center, can provide a strong guarantee for information-based hand-painted design [4].

2.2 Design Hand Drawing Performance Design Under the Background of Informatization
To improve the level of instructional design under the background of informatization, the first thing to do is to improve the designer's ability of information-based instructional design. With the tablet computer and VR virtual technology entering the field of design, if designers only master the basic computer multimedia and electronic whiteboard operation, they will only download video or make simple PPT, which cannot meet the needs of information design. In practical work, new information technology is constantly emerging. Designers should not only improve their application ability of various teaching software, but also integrate information technology and hand-painted design courses. They can choose appropriate information technology for hand-painted design according to specific design contents, so as to solve the key and difficult points in design work. In the design, the formula in Photoshop is used to show the design expression to customers

\[ TG = \sum 5 - \sum_2^4 + \int_2^7 \]

(2)

Only in this way can we adapt to the new needs of information design environment. With the improvement of information-based hand-painted design ability, it is not only a simple imitation of a hand-painted design, but also a process from active learning to practical application and then to intelligent application. Each step requires the use of information tools, continuous learning, continuous summary, continuous improvement and active exploration, so as to truly understand the connotation of hand-painted design informatization in practice. After the design of information tools, the expression effect of formula Fe is reflected

\[ FE = \sum_2^7 + \int_5^3 - \frac{5}{3} \]

(3)

2.3 Design Under the Background of Informatization
Printmaking has a long history, and it is recognized that it originated in China, from the impression on the original pottery, to the stone relief and brick relief prevailing in the Han Dynasty, to the woodcut New Year pictures in the Song Dynasty, etc [5]. With the continuous development of printing technology, printmaking has influenced the art of other countries, such as the famous Japanese woodcut, ukiyo, and other art fields, such as hand-painted design. In the Northern Song Dynasty, the earliest printing poster appeared: Jinan Luijia Kungfu needle shop copper poster. In the 1920s, due to the development of slate printing technology, poster design in this period was mainly designed and produced by printmakers, and many classic design works appeared. Print design can have a great impact on modern hand-painted art and deepen the expressive force of hand-painted design [6].

2.4 Big Data Design for Hand Drawn Performance Teaching Under the Background of Informatization
Based on the analysis results of big data, the course content is selected [7]. Through the establishment of professional information platform, the connection between professional education and practice needs can be realized, and the change trend of practice field and the requirements of teaching can be timely understood, so as to adjust the course content and make it more reasonable [8]. We can publish the current training program, or the teaching process, practice process and teaching results of the corresponding courses, and then collect all the information about curriculum evaluation for data analysis. Employers, experts, peers, ordinary users, etc., their attention to the existing courses, the number of recognition or not, and the requirements for talents' ability and quality are all included in the system design for analysis, so as to guide the addition, deletion and adjustment of teaching content [9]. For example, the number of approved comments can reflect the approval or rationality of the comment or suggestion

In order to improve the effect of classroom learning, a variety of classroom organization forms
have appeared in the history of teaching reform, such as the ancient individual teaching, the most common class teaching, design teaching method, Dalton system and so on. For the major of visual communication design, the reality also puts forward new requirements for classroom teaching.

3. Experimental Data of Hand Drawn Design Under the Background of Informatization

3.1 Experiment of Hand Drawing Design Under the Background of Informatization

This paper uses a lot of experimental investigation method and case study method to study and investigate the types and use methods of information tools in the creation process of hand-painted design. After a large number of experiments, it is concluded that the use of information tools such as digital picture books and PS equipment can greatly improve the details, composition, expressiveness and light in the creation of hand-painted works the rendering effect of shadow and other effects.

3.2 Hand Drawn Experimental Data Under the Background of Informatization

In this paper, the comparative method and case study method are used to study the commercial expression ability of hand-painted design in the creative process. By using the different processing results of the contrast group, the control group and the experimental group, through the use of color tester, and the investigation and interview of different audiences, it is concluded that the use of information tools to create hand-painted works can greatly increase the expression ability of works.

4. Design Hand Drawing Design Experiment Under the Background of Informatization

4.1 Experiment of Hand Drawing Performance Under the Background of Informatization

The hand-painted technique used in this paper is to select digital hand-painted, draw through the stroke tablet computer, and then color it with PS. the PS is mainly used to deal with the texture and light of the line draft. The texture mainly uses the filter to make various texture effects such as cracks, graining, mosaic and glass. The advantage of digital hand-painted is that the performance map can be copied and modified, which greatly improves the efficiency of drawing. There are no specific effects in the three groups of information-based drawing techniques as shown in Figure 1

![The experiment of hand drawing under the background of informatization](image)

**Figure 1.** The experiment of hand drawing under the background of informatization

It can be seen from the figure that the composition, color, structure and other data of the experimental group are slightly higher than those of other groups. The experimental group's color and composition data reached more than 4.5, the light and shadow effect reached more than 5, the overall
performance effect increased by 13%, and the design theme expression effect reached 6. After the use of information tools, hand-painted design works not only show the advantages of color expression and composition clarity and artistry, but also have no other hand-painted methods. Therefore, the hand-painted design works with information tools can be better than other hand-painted works in various data.

4.2 Performance Experiment of Hand Drawn Atmosphere Effect Under the Background of Informatization

Digital display of hand-painted drawings can let customers appreciate a style, a language and a spirit through images. Through conveying this kind of consciousness, reflecting a kind of idea, thus creating a new space environment image. A kind of experimental work during product display is used to show the situation of various indicators of hand-painted works after using information tools. The specific data is shown in Figure 2:

![Experimental study on the effect of hand drawn atmosphere under the background of informatization](image)

**Figure 2.** Experimental study on the effect of hand drawn atmosphere under the background of informatization

In the process of exhibition, the creation of space atmosphere is mainly through modeling, lighting, color, material and other aspects, the use of sound and photoelectric technology to make the environment from static to dynamic, digital display of hand-painted strong contrast works of human relations, so as to highlight the display information. It can be seen from the data that the expressive power of the experimental group is more than 10% higher than that of the other groups, the effect transmission reaches 6, the color and style reach 3 and 5 respectively. Due to the use of a large number of information tools, the experimental group can better show the style and connotation of the work, so that the spiritual connotation of the work and the information expressed can be better conveyed to the audience, achieving a good performance effect.

4.3 Experiment of Hand Drawn Detail Expression Under the Background of Informatization

From the point of detail, a large number of information tools are used to meet and improve the design connotation that designers need to express when designing commercial works. From a technical point of view, information tools can use a large number of skills that require long-term experience
accumulation, use high-tech expression, and carry out relatively simple operations. After using information tools, a large number of details that need to be carved for a long time can be made simple and easy with the help of information tools. Therefore, it is necessary to deepen the expression of details in the creation process of hand-painted design, so as to achieve better communication effect. The following table shows that hand-painted creation achieves better communication effect with the help of information tools. The specific data are shown in Table 1:

Table 1. The experiment of hand drawn detail expression under the background of informatization

|                         | character | background | scenery | lighting | Light and shadow | Set off |
|-------------------------|-----------|------------|---------|----------|------------------|---------|
| Test group              | 3.2       | 4          | 3.6     | 3.5      | 3                | 2.7     |
| Experience group        | 4         | 6          | 4.8     | 4.7      | 5                | 4       |
| Control group           | 3.5       | 3          | 3.7     | 4        | 4.1              | 3.5     |

From the initial conception and positioning stage of creativity, we can find the artistic conjunction point of point, line, surface, color and volume, refine, transform and use the image symbols creatively. Through the use of a large number of software and information processing equipment, such as digital picture books, VR reproduction and other technical means, we can improve the overall expression effect of the work. After using a large number of information tools, we can find that the comprehensive expression power of the experimental group increased by 9%, the color expression increased by 3.6, and the light and shadow effect increased by 4.1. After the experiment, we get the data. In terms of light, color, composition and other data, the light and shadow effect of designers who use information tools increases by 12%, color effect increases by 7%, and composition effect increases by 9%. To a large extent, it enriches the details and aesthetic feeling of the works, makes the characteristics of the works more prominent, and achieves a good performance effect.

5. Conclusions
The research of this paper is mainly about how to improve the expressiveness of hand-painted design in the background of informatization, and how the effect after promotion is different from that before the use of information tools. In this paper, through the integration of a variety of information technology in the context of information technology, enhance the effect of artistic expression, and increase the advantages of hand-painted design in the commercial art performance of products and commodities on the selling point and characteristics, a large number of research. Through the application of hand-painted design in commerce, case study and experimental investigation are used to study and compare a large number of information and details conveyed by information tools in hand-painted design. It is concluded that the use of information tools can greatly enhance the artistic expression and commercial value of hand-painted design. Therefore, the use of information tools in hand-painted design can greatly improve the performance of commercial design works.

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