

# Comparative Analysis of Interface Layout Design of Educational Web Sites in China and Korea

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## Abstract

Taking design of educational websites as an example, this paper analyzes the basic elements of interface design, including composition, user research and theme practice, and compares the similarities and differences between Chinese and Korean web designs from four perspectives: text, image, color and navigation design, respectively. According to the comparison results, both countries' educational web designs prefer to use calligraphic fonts, but China prefers square diagrams, horizontal and vertical navigation, and stable and prudent colors, while Korean designs tend to use circular diagrams, tilted navigation, and youthful and lively colors. This paper provides reference for China's educational web design innovation by comparing the similarities and differences of the two countries' designs.

**Keywords:** Chinese and Korean education, web page layout, interface design

## 1. Introduction

Under the rapid development of network technology, leading people into the new digital information era, computers gradually penetrate into people's production and life, and a large amount of information on the Internet is carried by web pages, and the daily web page clicks are in the tens of thousands. Although Korea and China both belong to Asia and have similar history and culture, Korean design has long been relatively advanced and widely loved by Chinese citizens in terms of educational web layout design. In this regard, we should compare the layout design of China and Korea, so as to make up for the shortcomings and improve the visual effect of China's educational layout design.

## 2. Basic Content of Education Website Interface

### 2.1 Composition Elements

In terms of composition, educational websites focus on user behavior, explore the expectations of users' operations, and arrange the needs from high priority to low, and divide the web design into different levels. Among them, the strategic layer is for users to obtain corresponding knowledge through the website, which is the strategic goal of education websites; various graphics and elements in the scope layer can have a direct impact on user application experience, and provide users with more learning opportunities through the interface description of institution-related information, classroom arrangement, online learning and other functions; the structure layer is the function modules of analysis and organization, centering on user interests, combining condition search, institutional news, etc., as user target function points, with multiple information for diverse combinations; the performance layer is the market division according to website themes, identifying different audience groups, such as physical education websites, focusing on customized courses, health sports, etc., which can be user-based, and the superiority of the website can be fully demonstrated.

### 2.2 User Research

The research content is divided into user groups, needs and characteristics analysis. In the audience group analysis, it is required that the product design should start from the user's position, fully grasp the user's needs and preferences, pay close attention to the user's aesthetics and behavior, and divide the group according to the user's click rate on the website, which can be divided into three types: expert, casual and pioneer mainstream. Due to different education levels, the amount of information users obtain from the Internet varies, and users with higher education are generally more likely to collect more information from the website, but are less satisfied with the interface; in terms of audience characteristics analysis, the analysis of user behavior of Chinese and

Korean education websites shows that most of them go straight to the topic according to their own needs when browsing the webpage, and rarely read word by word, which requires that webpage design should be based on user's concern about the topic and grasp the characteristics of user browsing in order to design a website in line with user's psychological needs. In terms of user needs, the birth of the Internet provides more possibilities for education, and educated people can receive quality services provided by the Internet at any time. For example, audiences aged 19-30 are more concerned about their own hobby-related knowledge, while audiences aged 30-35 are not only concerned about their own hobby, but also about early education knowledge. Therefore, it is necessary to understand the characteristics of the audience when designing web pages in order to find a more accurate positioning (Liang, R.-X., 2019).

### *2.3 Theme Practice*

According to the quality and characteristics of different user groups, designers can design the corresponding interface through a more efficient mode. On youth-oriented websites, to better attract the audience, by adding content of interest to youth will be more efficient than putting ads, and high conversion rate and high return rate should be applied to theme practice. In the theme education website, if you want to fully reflect the simplicity, you can choose a single layout, integrate graphics and audio and video, etc., to clearly and explicitly convey the information to users. For example, in order to highlight the theme of healthy and green, the main color can be vibrant green, and combined with other platforms to achieve data sharing and function transfer, providing users with more intimate and thoughtful services.

## **3. Comparison of the Layout Design of Chinese and Korean Education Web Pages**

In educational web pages, the interface layout is composed of several elements. Because of the differences in design concepts and cultural backgrounds between China and Korea, users have different perceptions of the educational interface between the two countries, mainly in terms of text, images, colors and navigation design, etc., as follows.

### *3.1 Text Comparison*

In visual communication design, text is one of the key elements, and the text of any country can accurately convey the required information. In web design, text design has a direct impact on web page effect, not only has the role of information transmission, but also can attract users' eyes through deformation design and other ways. Only with good text design can we show a good and beautiful picture and thus improve the aesthetic value of the web page. The differences between Chinese and Korean text are reflected in both shapes and special fonts, which are applied to headlines and advertisements and are usually located in obvious places on the web page, while the body text is mainly in ordinary fonts for easy reading by users. In terms of text shape differences, in order to present a better font effect, the text strokes can be deformed to make them more dynamic and interesting, highlight the beauty of font structure, and turn the text into graphics to strengthen its artistic effect. Comparing the text of the two countries, we can see that the design feeling of the two countries is not the same. Therefore, the text in Korean web pages can match with the surrounding environment, while China's web pages are affected by design features, the number of text graphics is small, and it is impossible to make the text and the atmosphere of the main picture blend together organically as in Korea; in terms of the commonality of special fonts, because the web page text is affected by the font library, in order to use special fonts for design, the text should be changed into graphic format first. This move can improve the visual effect of the interface and design a good text style through web cartography. In the educational web pages of both countries, calligraphic fonts are more widely used and can show the commonality of cultural aspects and become one of the main expressions of educational web pages (Hu, J., 2020).

### *3.2 Image Design*

#### *3.2.1 Image Size and Proportion*

The difference in image size and proportion between the two countries has a great influence on the style of educational web pages, which is constantly related to the relationship between the main and secondary images, and also affects the visual effect, and has a great impact on the overall balance and focus of the web pages. In general, the main image design in Korea is relatively large, sometimes even using exaggerated techniques to enhance the visual effect, relying on large scale images to show details, so that the drawing can attract more attention and convey stronger feelings compared to the text, and achieve the purpose of speaking with pictures. The main image in the Chinese education webpage is relatively small, and the main image is often integrated into the whole interface, accounting for a relatively small proportion, so that the text description function can be highlighted, and the image use function is reduced. Because of the small size of the main image, it looks simpler

and more stable, with the role of setting off the text. The Korean web design focuses on large size images to increase the visual impact effect, while the Chinese web design focuses on small image application to make the text more intuitive to convey information and make people feel calm and prudent visually.

### 3.2.2 Shape Design

For web images, shape design can bring different visual feelings to viewers. Square images are more solemn and steady, round or curved shapes are softer and gentler, and irregular shapes are lively and dynamic, all with strong decorative functions. Compared with Chinese designs, Korea designs use more circles, bleeding diagrams, and receding background diagrams, while Chinese designs mainly use squares and rarely uses other forms. Take round border as an example, the use of curves or circles for specification makes people feel a sense of fullness, so the user can browse in a free and happy mood; receding background diagrams are the diagrams with outer edge being cut, so that the contours are more distinct, while the pictures are flexible and vivid, rich in personality, which can effectively avoid overlapping graphics, but it is also appropriate to add some lines, color blocks, etc., so that the layout is more stable and balanced; square diagrams are constrained by the border, with less decorative elements and single forms. This kind of graphic design can perfectly integrate the theme and image, highlight the theme of ideas, promote the atmosphere rendering of the whole picture, and give people a rational, authoritative, and quiet feeling. In terms of plate layout, the square diagrams are mostly set vertically on the left or in the center, while the circular diagrams have relatively more layout variations.

### 3.3 Color Application

Web page color processing has a direct impact on the layout effects. A scientific color matching can leave a good first impression for users. The color scheme of Korean web pages is mainly light and vivid colors, which are less likely to cause visual fatigue when users browse and can make them feel happy. In contrast, the color scheme of China's educational web pages is mainly steady, simple and plain colors, generally with 3-6 colors, and the areas occupied by different colors are different; the main color occupies a relatively large area, and the key content can use contrasting colors, so that the text is not easily confused with the base color, and other auxiliary colors can be used in relatively small areas of color blocks, as follows. Many web pages use black, with a symbol of death and mystery, but with other colors in flexible collocation, it can present a sense of noble mystery. Once improperly matched, black will make people feel depressed. Black is usually less used in educational webpages, and if used, is combined with the use of secondary colors, where the secondary color areas should be configured reasonably. Take the official website of a domestic institution as an example, black, white and red are the main colors, with black accounting for the largest area and red and white accounting for a smaller area, making people feel very dull and depressed. In contrast, the official website of a Korean institution still uses black, white and red colors, but black accounts for a relatively small proportion of red and white colors, making the whole web page very noble and exquisite. In the background color design, the background color of the web page has a direct impact on the user's vision, and the resulting psychological changes can determine whether users to continue browsing or not. The gradient background color can make the space produce depth and attract users' attention. For example, a gradient color of "blue-white-blue" is used on the website of a university to make the space appear deeper and quieter, but the effect is different because the two backgrounds are combined in different ways. In Korean one, the gradient is combined with the image to create a sense of color fusion, while in China, a transition is set between the gradient and the main image, with a certain gradation between the two to create a sense of superimposed depth (Hu, J., 2020).

### 3.4 Navigation Design

The navigation system of our educational web pages mainly consists of primary, secondary, auxiliary navigation and hyperlinks. In addition to the above-mentioned contents, Korean navigation system also has a quick navigation function, which provides convenience for users to browse the web pages quickly with a humanized display. The main navigation position is usually set above or on the left side, and the navigation position of educational websites is basically set at the place where users' attention is focused, and the layout can be cut according to the navigation position; in terms of navigation, according to the survey, Korean educational websites mostly adopt navigation with angled tilt, while China's horizontal and vertical are the main ones, and such design is related to the national culture, which also reflects the adaptability of Korean design and creative ideas worth learning by China; in terms of navigation decoration effect, there are border and borderless types: the former can attract users' attention, and the latter is simply expressed with fonts. Korean design advocates humanization and always gives people a sense of comfort and elegance. The colors and decorations are very soft and gentle, and the overall effect is ideal as the navigation echoes the web theme (Xie, B., & Han, J., 2020). Many Korean designers like to decorate with rounded arcs and rounded borders, which has become a

characteristic of Korean design. In contrast, our web pages generally decide whether to decorate the navigation according to the actual needs, usually using straight boxes as decoration, and the overall design style is more uniform.

#### **4. Conclusion**

In summary, according to this study, web design should combine user needs and aesthetic standards, adhere to the principle of humanization, so that user expectations can be met. At the same time, the culture of different countries and nations should be respected. By comparing the educational web design of China and Korea, the author found that there are similarities and differences between the two countries in terms of text, images, colors and navigation design. In the future development, China designers should integrate the "curve beauty" of Korean design into the layout design, and fuse it with the "shape" aesthetic and cultural concept of Confucianism in China, so that the art can be put into a big philosophical context and make the design art full of cultural colors.

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