

A theoretical Study on the Elements and Methods of Course Design in Online Graphic Design Education

Yingxin Yan*

Shandong Xiandai University, Jinan, Shandong, China

**Corresponding Author.*

Abstract: The design elements of MOOCs for graphic design are not a process of listing piling up a large amount of information, but a process for designers to provide visual enjoyment to learners based on resource sharing, involving visual aesthetics, cognitive habits, etc. MOOCs are not targeted at specific groups, and at the same time, while disseminating educational information around disciplines and professional directions, but also for the web interface such as style color, image text and so on. The application elements of graphic design depend on two-dimensional space, and the application of visual elements is more incisively and vividly in the open network course of graphic design. Visual elements, whether text or graphics, are combined with other elements to meet the basic requirements of layout design. The main task of online courses is to share knowledge. Whether the application of visual elements is appropriate and whether the combination of elements is reasonable will affect the effect of resource sharing.

Keywords: Open Course; Information; Design; Elements; Education

1. Graphic Design Network Course Design Elements

1.1 Text

Text is the main carrier of the content dissemination of online open course. Especially in graphic design online courses, the visual level is required to be higher. Video text and other elements that convey knowledge and information to learners must consider the visual integrity of text in the design of font elements, as well as the communication effect of text elements that can bring a new visual image to people. In the grouping design of text, disordered information design should be

avoided. As a kind of information, the fundamental purpose of text design is to disseminate cultural knowledge more effectively [1]. From the perspective of graphic design, text, as one of the information elements, has the function of conveying information and expressing emotions. In graphic design online courses [2], which require high visual level, the advantages of the major should be reflected. Through the text design to give people a visual beauty, clever layout of the text gives a sense of clarity, on the contrary, if the design and layout of the text is chaotic, it is bound to give people confused visual feelings, knowledge sharing is restricted.

1.2 Images

Compared with text, the visual experience of images on the page is more impact-inducing than text. It can attract students' attention in a short time, and images can present the main content more directly. In online courses, excellent images can help students understand and master relevant knowledge. Images can represent the information content in a more concrete and vivid way with high quality [3]. Through the strong appeal of images, the abstract content elements in the course are full of creative interest, especially in the presentation of visual elements in the open online course of graphic design. Images play a role in forming a unique design style and attracting the visual attention of participants, and mainly play a role in highlighting the visual effect of the course interface and guiding reading [4].

1.3 Layout

The design of online courses is not only the process of listing text, image and color, but also the layout formed by the combination and arrangement of elements. First of all, improper arrangement of text design will affect the beauty of the font itself and disrupt the visual

order of users, which is not conducive to the effective dissemination of information and is not in line with the network learning platform for the purpose of resource direction. Therefore, the comprehensive consideration of text can be made from the aspects of style characteristics, size contrast, sensitive contrast of color, etc. The comparison effect is lively, full of vitality and overall unity. The basic content of online courses includes title, website logo, navigation, main content, etc., and different styles of layout are designed according to different fields involved in graphic design courses [5]. The standard display position of navigation mainly has four kinds of web pages: up, down, left and right. Some websites use a variety of navigation forms, which is also to increase the click-through rate of the page. The layout of the main content is arranged in columns according to the classification of the content [6], and the page generally follows a top-down order, with the main content in the visual focus of the page and the secondary content arranged around the main content.

1.4 Hyperlinks and Navigation Hyperlinks

Hyperlinks and navigation Unlinking is a process of jumping from one side to another page, usually a link between a home page and a subpage. Hyperlinks can be in the form of text or pictures. Navigation is a hyperlink tool for browsing web pages, mainly in the form of buttons and text. The form changes of online courses are generated by multi-screen, paging, nesting and other design methods, so as to achieve a variety of processing effects and enrich the formal beauty of courses. In graphic design courses, the unity of the form of a single page and the course content is a problem that designers cannot ignore, especially under the theme of one design direction, the unity of the content involved in multiple paging and course form [7].

1.5 Multimedia

Compared with text and images, multimedia such as animation, audio and video in online courses endow online courses with vitality and make it easier to impress students. Animated videos incorporate text. Audio. Video in one, the visual changes are extremely strong, when we use text to explain some abstract knowledge, the use of multimedia form to

vividly elaborate, at the same time, the media will disturb the effect of students to obtain information, these are all factors that designers must fully consider.

2. Methods of Interface Information Design in Open Network Courses of Graphic Design

2.1 Layout Composition of Open Online Course Interface

The layout composition method of web interface is designed according to the physiological and psychological states of users during online course learning. Users' understanding of the information content presented on the web page can be completed quickly in a short time. The layout design of open online course involves the following five points:

2.1.1 Change and uniformity

That is, "seek common ground while reserving differences." In addition to the most professional design, the page of the open course of graphic design needs to be rich in form, that is, the movement, strength, size and other aspects of the graphics are handled appropriately.

2.1.2 Get organized

Rhythm and order in web course page design are the basis of order and repetition [8], and order and repetition are the basis of rhythm and order in web layout. Repetition is the continuation and extension of rules, organized change and expansion, and summary and induction, reflecting order. Since the open online course of graphic design involves many design fields and has a large amount of information, it is necessary to apply certain principles to organize and reuse the information in the online course. Only clear and tidy pages can make the reading of information faster and the efficiency of information transmission can be increased.

2.1.3 Contrast and reconcile

Contrast refers to the juxtaposition of different and different visual elements, which can make the overall picture of the web page full of vitality and change. Coordination is to form a bridge between two or more visual elements, and between one element and its various parts. Especially in online design courses, in the pursuit of individuality and style of individual layout, it is more necessary to convey a sense

of harmony and beauty to people.

2.1.4 Balance

In China's long history and culture, there is an interpretation of the balance, such as Han A Man's "Mansu Two" in "a thousand Jun will be a feather, heavy and balanced", it can be seen that since ancient times, human beings have pursued good things at the same time, according to the good things in nature to create beautiful and harmonious things, for example, in the ancient construction of power supply, the theory of balance and symmetry can be seen everywhere. In addition to the auspicious meaning, it is more to give people visual balance. On the web course page, in order to balance the interface, there are mainly three kinds of expression techniques: relative balance between graphics and text, balance between the size and density of text, and balance between color block size and color saturation.

2.1.5 Rhythm and rhyme

Jiedu and rhythm create a lively and dynamic atmosphere. Things in the movement environment have visual rhythm and rhythm. In music, we can feel the rhythm and rhythm of music through hearing. As an abstract concept, rhythm mainly refers to the speed and rhythm of movement. Rhythm can be said to be the development of order and repetition. It embodies a kind of orderly beauty. Rhythm is the changing track of street photography. In order to create a relaxed and pleasant learning atmosphere for learners in the page, the use of rhythm and rhythm is inevitable, and can promote the dissemination of information.

2.1.6 Leave appropriate white space

White space is the characteristic of Chinese painting. With the development of digital media technology and graphic design courses, it plays an increasingly prominent role in modern web design, layout design, interior design, landscape design, animation design and other fields. The interface design of open online courses of graphic design involves a large amount of information. However, the embodiment of the amount of information is not to fill the entire page complete, just like the Chinese painting blank, deal with the size of the page elements, primary and secondary, density, emptiness and reality, etc., to leave imagination space, and will not feel the lack of information. It is an artistic enjoyment of learning and leisure. White space gives the eye

a rest when highlighting the important content of the message, leaving the person with room to think. On the contrary, if the design of the white space is not exquisite enough, it not only cannot promote the role of information dissemination but will form a layout confusion and hinder the effect of the entire page design.

2.2 Text Editing of the Web Interface

Text arrangement is the key to the effective communication of information in online courses. Computers provide us with great confusion. In order to coordinate and unify the information state of the online course interface so that users can focus on browsing the course content, generally no more than three fonts are used in the text interface. On the one hand, for the sake of visual cleanliness of the web interface; On the other hand, because the fonts supported by the browser are restricted by the system fonts, some fonts are not installed in some users' computer systems, if these fonts are used in the web interface, it will show problems to the web interface. It would be less effective.

In most cases, users enter the online course knowledge for the purpose of looking for specific knowledge information, and do not expect to understand the various course knowledge in the platform. Arranging a large number of prompt language or too long and complex registration information will cause users to be bored. In this case, no matter how excellent the web interface is, the text prompt is not refined enough. The same will lose the user's favor, people mainly understand the information by scanning, the layout of the page considering the user's scanning this feature should pay attention to:

2.2.1 Reduce long, continuous texts

The outstanding advantage of online courses in content provision is that web pages can be segmented by linking information. Learners browse information selectively according to their own needs, and the main way to achieve the selectivity of browsing is to link. Links can categorize information and provide retrieval, so that people can fully classify and segment reading, thus saving the time of network response and user retrieval. In addition, most participants of online courses do not have the patience to read large blocks of text on the course page, which requires designers to simplify and segment the text content.

2.2.2 Use lists and lists

Lists and lists can be used for participants of online courses to quickly browse and get links to the knowledge they have learned. Therefore, the intuitive expression of lists and lists should be used as much as possible.

2.2.3 "Markers" that provide eye movements

In daily life, when we want to remember a certain route, usually to remember banks, hospitals and other iconic scenery, the same is true of the network open course page, in the graphic design class network open course interface at different locations to do "landmarks", can help course participants remember the content of the web page. Although the interface mainly reflects the new characteristics and advantages of the learning platform by using text descriptions, interesting patterns are added to the interface, such as cute characters, eye-catching text and other titles. As a mark of the boot interface series, it can be an effective mark to distinguish different content and help users remember the information of the interface.

2.2.4 Allocate users' attention appropriately

The arrangement of text elements in MOOCs has a guiding effect, which can focus learners' attention on the content. If the text circulates in a large length and the text changes rapidly in the form of animation, the form of overwhelming will distract the attention of the participants in the online course.

2.3 Navigation and Positioning of the Web Interface

The navigation design of open online course of graphic design is artistic and scientific according to the subject characteristics. The nature of the navigation problem can be illustrated by this example: when people consider the route from point A to point B, often the fastest way to get to the destination, they need to navigate. In open online courses with resource sharing as the main purpose, navigation is an important link way to think and build websites. Navigation can help learners to accurately locate a certain information knowledge point in the ocean of countless information. In the process of browsing the website, it seems very difficult for users to know their current position, but with the tips on the navigation area, they can clearly know their position and jump freely in the interface. The importance of navigation in

the process of website browsing is self-evident, to improve the efficiency of navigation system delivery there are mainly the following ways:

2.3.1 Establish a clear navigation system

Online courses will make the navigation system like a fish in water, clear, convenient and fast, users read web information in a free jump way, they are very spontaneous browsing, rarely according to some established order, so the web interface navigation system should have such a function, that is, no matter where the participants of the online course are located, You can jump to other desired pages at any time and freely. In addition, you can make a knowledge structure of each subject in the navigation system, and you can directly click on this structure to enter the corresponding knowledge point.

2.3.2 The navigation system is simple and easy to operate

Nowadays, the website is a popular medium, and a key element of big media is the ease with which the audience can access information. The simplicity and operability of the system in the web interface is an important goal in the web course, no matter how innovative the design of the web interface, but if it is not easy to operate - it is equal to zero. Therefore, the navigation system simplifies the level of the web page in the design process, and the number of clicks on the link to the desired knowledge point is minimal. Science proves - a page with the desired content in two clicks is ideal.

2.3.3 Properly design the location of the navigation area

Generally speaking, the navigation area can be fully displayed in the "first screen", if you need to drag the page down to see the full navigation area, it is bound to let the user inadvertently miss some key information. Placing the navigation bar horizontally at the top of the page effectively prevents this from happening. If the layout of the page requires a vertical navigation area, it is best to place important items at the top of the navigation area. But overall, the horizontal navigation area is more deterministic than the vertical navigation area, not only that, if the course page is not attractive enough for learners, they will skip it and go to the "second screen".

2.3.4 Unity of symbols in navigation design

Symbol unification is the form and style of navigation area design, which can make the

web interface not only have a whole visual effect, but also the unified symbol can effectively avoid the semantic confusion caused by the user in the process of use, resulting in the use of errors. In addition, in the design of the form of navigation buttons, try to adopt easy to understand ways, such as the use of conventional symbols or languages, easy to understand symbols or languages to reduce the user's cognitive friction. Navigation design should follow many design principles, including the rationality of symbolic metaphor; a high degree of generalization of graphic expression; Cross-cultural meaning; On the basis of following these principles, users can enhance information absorption through the speed and efficiency of browsing web information.

2.3.5 Visual graphics of navigation system

The design of navigation system should be as much as possible a large number of practices have shown that the visual graphical navigation system can be more easily adopted by people visually and graphically. The closer the graphical metaphor is to the user's experience of use, then the information will be recognized and accepted. The better it is if it is communicated.

2.4 The Color Tension of the Web Interface

The first impression of MOOCs is mainly due to the visual impact of color on the page, and the color tension of the MOOCs page depends on the designer's use of color and the use of collocation. It is precisely because of the importance of color, so in order to avoid the abuse of color, we should pay attention to the dual meaning of color art and color function in the interface of open online courses. In addition, the concise and simple use of color can make the information of the web interface more prominent and eye-catching. The outline of the background reflects the long history and culture of Tsinghua University. The color composition of the picture is very simple, so the transmission is clear.

In some web interface design, in order to make the page effect look simply, so the information transmission is clear and indiscriminate use of color, the result is counterproductive. The combination of a variety of colors can attract the attention of users, but the lack of a harmonious and unified tone, and affect the reading efficiency of users, sometimes the rich

color or high purity of the picture as the background, affecting the reading of information. Therefore, on the basis of the intense color principle, the formation of their own unique design style, to leave a deep impression on the user, the color of the network course is mainly reflected in the artistic composition of the color and the scientific performance of the technology.

Color in web page interface is a typical digital color, which is qualitatively different from pigment color, so it is necessary to understand the relevant knowledge of digital color in order to make the transmission of color information more reasonable.

2.5 Dynamic Images of the Web Interface

In the course interface, any visual element has practical functions. Although the gradual maturity of network technology makes the forms of animation rich and diverse, we should selectively and appropriately use them to increase the richness of design effects. However, a large number of meaningless animation pages look chaotic and revolve around the theme of design. The dynamic images in the web interface can play an active role only by cutting the complexity and simply dealing with them.

2.6 Audio of the Web Interface

The progress and variety of audio technology add vitality to online courses. In daily life, sounds and words can convey basic information, and they are also important information carriers in the virtual space of the network. People experience the charm of the winning website through news broadcasts, blogs and other programs. The natural sounds formed by special effects, such as birdsong, thunder, and running water, make the interactive links in the course more interesting. People also hope to get responses when learning online and need responses to confirm the effectiveness of the actions, and judge and predict the following behavior and actions. At this point, all the presentation elements, such as animation, sound, etc. can be used as a way to return information. Sometimes a brief sound is enough to meet the user's expectations, which not only respects the user's psychological feelings, but also highlights the interactive characteristics of the web page as an interface.

3. Graphic Design Online Open Course Visual Design Concept

The open course is a highly complex and diverse platform that closely combines a series of visual elements such as shape, color and text. The network courses of graphic design pay more attention to the screen visual contact between teaching and learning in teaching activities, and the teaching interaction is gradually visual.

3.1 Understand the Learner

The network course of graphic design establishes a kind of teaching platform through mobile network, which cultivates people's aesthetic ability and edify sentiment on a macro level, and its main purpose is to improve learning efficiency through visual elements. However, in the design process, the information that designers want to table often contrasts with the original intention of learners. When learners do not know enough about some interface elements, the quality of information acquisition will decline and even make mistakes. To avoid this problem, we should pay attention to the following points:

3.1.1 Learner's mental state

The state of people's access to information is continuous. When there is information that learners are interested in in the online course, learners will focus on the learning purpose and task under the strong desire to learn. The outstanding feature of graphic design online courses is nonlinear, the click of the course interface utilizes the graphic image technology, the user can accurately find the matching point, just need to choose in the subject catalog, in addition, due to the interactive accessibility, the learner's expectations are also constantly increasing. If learners are constantly searching for or searching for the required content, they are prone to irritability, which directly affects the surface understanding of the knowledge content in the course. Learners read the content word by word, most of them scanning for keywords to determine the focus of the content. This state of the viewer requires visual design of knowledge information.

3.1.2 Avoid user trekking

An excellent graphic design online open course website will not be like a maze, so that learners cannot find anti-counterfeiting, on the contrary, it will be well organized, and learners

in any position can clearly "which learning section am I in?" What's in here? Which study section can I go to from this section?" Let users "avoid getting lost." When learners are faced with a page with a large amount of information, they need to collect different information and arrange it in a certain order to construct a systematic structure diagram in their own consciousness. When they are looking for specific content on different learning pages, they are prone to lose their direction with frequent jumps and switches. The reason for this situation is the lack of systematic and overall integrity of the content, which leads to the confusion of learners' cognition of the spatial relationship of information. Screen display has become an influential factor in students' visual integration in terms of scrolling, multi-screen or display habits, resulting in an increase in the workload of information search, screening and analysis.

3.2 The Principle of Simplicity

The simplicity of the interface is conducive to learners' memory of knowledge. Faced with the complex amount of information in the web interface, designers use subtraction to hide the infrequently used functions in order to maintain the simplicity of the interface. For users, the ultimate goal of designers is to ensure that the interface is visually easy to understand through the accumulated knowledge and the barrier-free use of the interface in the online course.

3.3 The Principle of Rationalizing the Layout

In terms of interface layout, designers design from top to bottom and from left to right according to the visual order and operation process of learners, and navigation is generally located at the top of the page. In addition, according to the principle of reading, the distance between text content and 100 yuan of the page is about 20 pixels, and the pop-up window of information prompt is located in the center of the page, thus weakening background information. It's all about getting the message across.

4. Conclusion

The design elements of MOOCs deal with the traditional factors of understanding user characteristics, user needs, user interaction

experience, interface text, interface image, interface layout, etc. Besides, more considerations should be given to the efficiency and effect of information transmission, which not only requires designers to follow the design principles for a unified design of the interface. It is also necessary for the network open after-school station to do a good job of hyperlinks and other links through the user experience, and it is also necessary for the professional leaders to explain accurate and cutting-edge knowledge. This is a platform to exert collective wisdom, and the research on this platform should be further promoted to optimize and promote the progress and development of a learning society.

Acknowledgements

Research on the Collaborative Development of Patriotic Education and Aesthetic Education in Private Universities (MJ202445).

References

- [1] Jiao Jianli. From Open Education Resources to "MOOCs" - What We Can Learn from It. End of Education for Primary and Secondary School Information. October 2012
- [2] Li Qing, Wang Tao. MOOC: A Giant Open Curriculum Model Based on Connectivism. Distance Education in China. March 2012
- [3] Yan Chong. The current situation and development plan of education informatization in Dalian City. Research on Electronic Education. April 2011
- [4] Sun Shasha. The application of information teaching method in the course of computer graphic design. Technology information. Issue 17, 2022, No. 168-171, 4 pages
- [5] Guo Dean Hu Jian The application of information technology in the course of computer graphic design North, south, east, West (education) Issue 6-6, 2021, 1 page
- [6] Dong Ge The application of information technology in the teaching of graphic design International public relations Issue 10, 2019, No. 65-66, 2 pages
- [7] Yuan Bowen The application of information technology in graphic design teaching Research in art education Issue 22, 2019, 100-101, 2 pages
- [8] Hu Weilin The application of information teaching method in the course of graphic advertisement design Journal of Science and education Issue 30, 2018, 109-110, 2 pages.