

On the Color rule of Children's Educational Website Games

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Abstract: Children's puzzle web game is a game developed with children aged 6-14 as the main audience. Because children at this age generally have the common characteristics of difficulty in focusing and weak literacy, the coordination of color and graphic language plays a vital role in the game. This article conducts specific color analysis and research on the game. This paper attempts to summarize the rules of color design in the interface design of children's puzzle web games.

1. Introduction

The third scientific and technological revolution in the 1940s and 1950s saw the development of information technology and the rapid development of computer technology. At the beginning of the 21st century, computers began to enter Chinese families and their popularity rate was higher and higher. Online games came into being at the historic moment. The market of children's educational web games was expanded and developed[1]. They were launched and put into operation in the last year of 2000. It has become a noticeable touch of color in the childhood memories of the generation after 1990, which has had a great impact on this generation's cognition of color and graphics. Next, the author hopes to help the relevant industry people better create a beautiful and wonderful green Internet world for children by summarizing the rules of color design in the interface design of children's puzzle web games. Next, the author will focus on the color use and interface color distribution of several representative online games for children's intelligence in China[2].



Figure 2. Obi island's login and punch screen

2.2. Aurora Color Analysis of Aurora

The development company of "Aura Star" is Guangzhou Baitian Information Technology Co., Ltd. This game is a web game specially designed for children aged 7-14 in China. The game focuses on searching for "Huizhi Fragments" in different spaces and then launches an adventure. The content of the game includes the characteristic games produced under the background of the special story of the game, such as Abi Duel, mineral collection, personalized decoration, space cabin decoration, and other elements. The overall style of the screen is presented in the situation of the version. The overall color of the interface is blue[5]. To conform to the style of interstellar science fiction in the game settings, a lot of stars in the dark color system are used. Blue and black are used as environmental colors, yellow, green, pink, and purple are used as embellishments. The vast universe and stars are used as the perspective on the screen. The world map on the page takes cities as the middle scene, and the colors are virtualized. The buildings in small function cities are small icons, the combination of near, middle, and far, virtual and real, with the complementary color of the scene or the theme color of the small icon as the font title, plays a role in attracting attention, and better guide the children to play happily, as shown in Figure 3, Figure 4 [6].

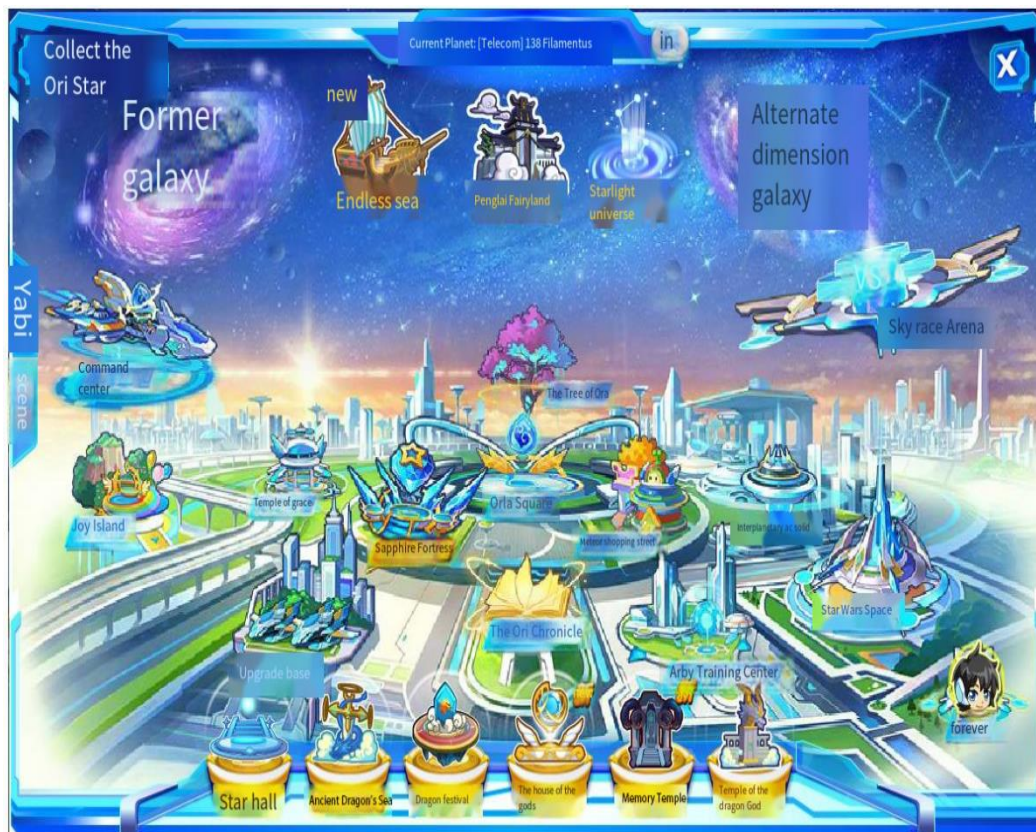


Figure 3. The home page interface of aura star



Figure 4. The world interface of Aura star

2.3. Color Analysis of Little Flower Fairy

The development company of "The Little Flower Fairy" is Taomi Network. The game belongs to a role-playing game for girls. The main audience group is girls. It can be said that this is a game specially developed for girls[7]. The game was released on December 25, 2009. Due to its popularity and popularity, it soon developed its derivative mobile game, which is called "Flower Language Academy". The game takes the micro world of flower fairies as the background of the story stage and describes all kinds of fantastic adventures of flower fairies with different identities interwoven on the stage of this world. As the game is set to be a flower fairy world, most of the elements used in the design are magical creatures in the scene of exotic flowers and plants and the natural magic world surrounded by immortality[8]. Figure 5,6 is the world map of the game. It can be seen from the screen that the middle area of the map's big background is a light blue lake, and the river flowing outward from the lake divides the land into three areas, the magic continents of the three countries were different magic series of fairies live have been formed. Different colors are used to distinguish them on the map. They are green forests, pink flower, sea, and yellow mountain range. Players can know their national territory at a glance and can live in their favorite countries by controlling their little flower fairy characters. The system will release the corresponding main task, it helps players understand the settings and story of the game. Players can complete the corresponding story while completing the main task. Players can get items and props or their favorite clothes and props by participating in activity tasks to decorate their little flower immortals.

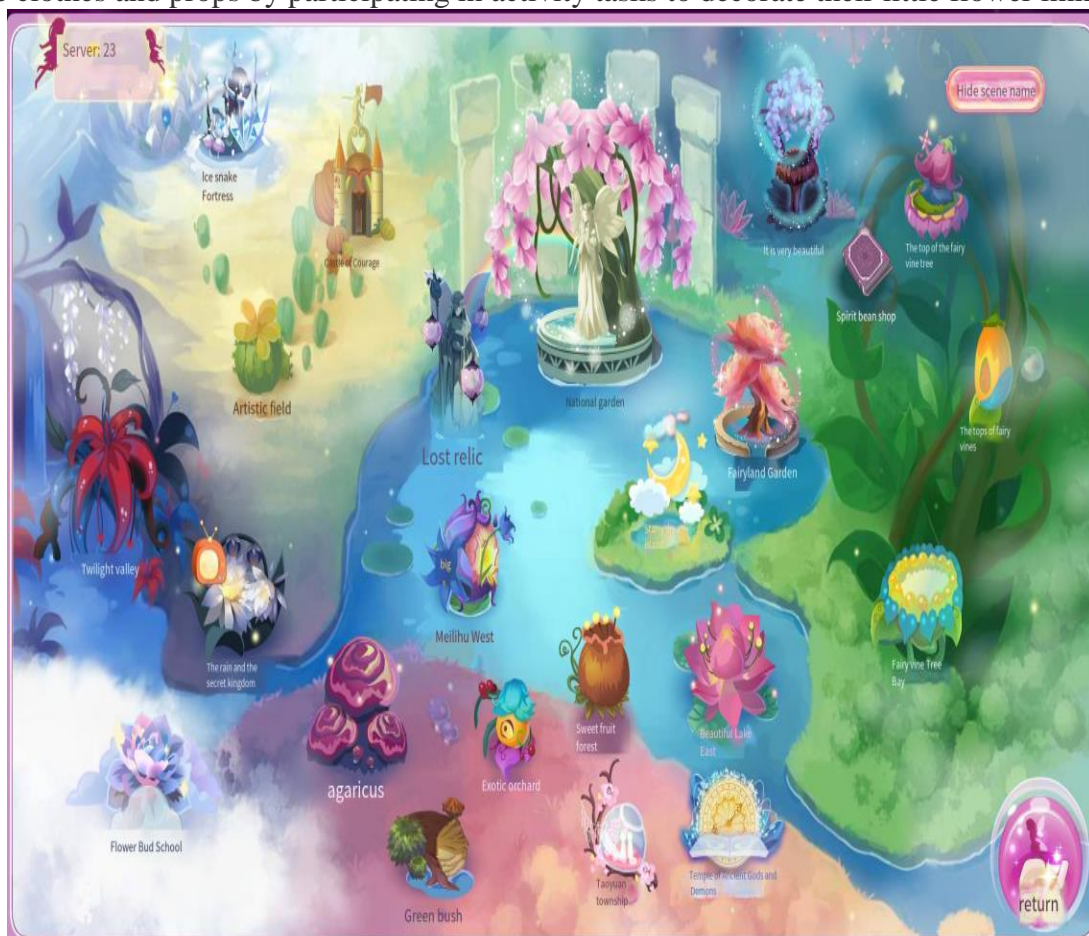


Figure 5. Little Flower fairy's home page interface



Figure 6. Little Flower fairy's character backpack page

2.4. Color Analysis of the Sail

"Sail" is a Chinese children's sci-fi community nurturance web game developed and operated by Shanghai Taomi Network Technology Co., Ltd. It was released on June 12, 2009. The game, themed with adventure and spirit-raising, tells all kinds of strange and tortuous stories between small Sails and various element spirits when they are looking for energy for human partners, it has been successfully adapted into a big movie and an animation of the same name, which has caused a wave of waves and now has a certain influence among children. The story of the game occurs on a starship named Cyl, which is a pioneer exploration ship developed according to the characteristics of Cyl robots and is the base camp of small Cyls in the game. In the spaceship, players can perform tasks, promote spirits, participate in activities, and earn money through different behaviors[9]. Different scenes correspond to different functions. "Sail" has obvious characteristics in screen style and game interface design, which makes it jump out from many similar games. The space takes black, blue, and white as the main colors, which fully creates the cabin environment of the spaceship with a full sense of science fiction. At the same time, it draws the main characters and elves in a cartoon style full of childlike fun, and endows them with strong bright colors and soft textures that are opposite to the hard and pale metal texture, making them jump into the players' eyes at once, eye-catching, and making them fall in love with it at first sight. Therefore, the game has gained the upper hand in the same type of games. Although the concept proposed by the developer is that the game is mainly aimed at children aged 7-14, the fun contained in it is also

deeply attracting child-like adults, as shown in Figure 3, Figure 4 [10].



Figure 7. Sail character battle page



Figure 8. The Home Hall of sail

2.5. Summary of Children's Puzzle Webpage Game Color Rules

In regard to the impact of game types on interface color and style, we can see from the main audience groups that there are two types: male and female. Even if the two games are developed by a game company, even if the design team members overlap, due to game settings and world needs, the methods and forms of expression of the same color are also very different, but the pictures are rich and clear. Although some games have no obvious gender emphasis or even no gender setting, and only distinguished by the color of the characters, their game styles and types limit the gender gap and bias of their audience players, such as the games Obi Island and Saier[11-12].

Obi Island belongs to one of the games developed by the community. Influenced by its nature, the main audience group is girls. The colors are colorful and rich, with many changes, and a large number of light colors such as pink, yellow, and sky blue are used. The background of the game story is set on an island in a mysterious sea area. Therefore, although the game is mainly targeted at girls, blue, black and other colors are also used, the overall style of painting is delicate and delicate, with a unique tenderness and freshness, coupled with rich plots and tasks, which makes the whole game particularly attractive to children. The color of the game tends to be the dreamy color of girls, to create a dreamy atmosphere in childhood and make up for the regret that children can't see the wonderful scenery in reality. It can be said that it is a supplement and continuation of childhood color[13-14].

Although Ola Star and Obi Island are developed by the same game company, their painting styles are quite different. Because Ola Star has many fighting elements, its main audience group is boys. At the same time, the background of the game is set with different spaces as the theme, with a strong sense of future science and technology. The elements of mecha, space, warehouse, and sky are used, although the same blue system is used, it is quite different from the atmosphere created by Obi Island. The overall color and texture of the game interface design are more rigid. However, the sexual orientation of the audience of the games "Little Flower Fairy" and "Sail" is even more obvious than that of the two games. Even in the introduction of the game by the developer, it has been marked that the main audience is boys or girls. The soft color of the picture is gentle to the extreme, and the cold and hard color is cool to the extreme. The polarization is obvious. Only by perceiving the needs of the main audience groups and meeting their demands can they stand out from thousands of games and become the favorite of small players[15].

3. Application of Two Colors in Games

The application of color in game page design has played a great role and has a great impact on the atmosphere of the game interface. The creation of a game space atmosphere and the formation of its unique feeling cannot be separated from the background of color. Even scenes of the same main color have different application methods in different games, such as mechanical technology space and foreign island space, which are used together with graphic language, It makes two-game pictures to show different visual effects.

In Chinese culture, the cultivation and requirements of boys and girls in the process of growing up are quite different. For boys, people encourage the cultivation of adventurous, independent, and independent warrior spirits and admire their bravery. Any behavior similar to that of girls is considered weak and lacking in masculinity, while girls, on the contrary, have no requirements for their achievement, only paying more attention to their external image and the cultivation of their words and deeds. All these are concepts that society has instilled in children and affect their hobbies and behavior tendencies. Sociologists have summarized that the nature of people will change with the change in social relations. The existence of human beings is not only a personal but also the

combination of all social factors around. The general signs indicate that boys' and girls' love for color is mainly caused by the influence of information and ideas they came into contact with during their growth, except for a few natural factors. It is precisely because of this that game designers can control the design direction according to the characteristics of the main audience players in the process of game interface color design, and summarize the corresponding color rules to promote the better development of the game.

4. The Epochal Color of Children's Educational Web Game

Children's puzzle web games have been developed since the end of the year 2000. No matter how brilliant it was in the past, it can hardly cover its decline. Reform is not as simple as talking on paper. While maintaining the uniqueness of the game itself, we also need to design its screen. The game mode has been upgraded and transformed in the process of operation. Although the energy consumed is not as difficult as creating another game, many games once had a prominent era, but because of the loss of game players, the operating cost is higher than the profit and continuous losses, so we choose customs service. In addition, website games can't achieve the peak of the initial era in this age of great talent. With the development and updating of terminal devices, various excellent games for detailed terminal devices are emerging. The launch of mobile app games and tablet board games has had a great impact on the web game industry, blocking a large number of web game users. At the same time, the appearance of AR glasses has pushed the game design and playability to a new height.

And with the growth of the first batch of old users, the main service objects of the game have changed for a new generation. The characteristics of the times determine that this era is no longer the era when entertainment was scarce. The introduction of any game can easily take the lead. Now the aesthetic level and entertainment conditions of this generation of age-appropriate users have become increasingly high. Any game introduced in the early generation can operate today, all of them have gone through innumerable reforms and changes in decision-making, big or small. The style and color of the game interface are not comparable at the beginning, and most of those games that have not been tested have stopped serving, becoming a faint trace in people's memory and on Baidu Encyclopedia.

The development of things has certain limitations and a life span. The same is true of people, the same is true of the universe. Of course, games are no exception. Generally, the life span of games is about 3-5 years, so if you want to continue and develop the life of games, you must keep pace with the times.

5. Conclusion

The four children's puzzle web games described and analyzed above are very representative. Everything that exists must have an end. Since the development of Internet technology, all kinds of inventions and black technologies have emerged one after another. Among them, countless game companies, large and small, have competed to share the cake of games. The competition is fierce. The emergence of new things means that many old things will be replaced and become the past, covered by the dust of time and buried in the legacy of history. It is hoped that both game developers and game team designers can adhere to the principle of good user experience, pay close attention to and listen to the inner needs of children a special group, and design products that are conducive to the healthy growth of children, while at the same time, making the life of the products be extended to the maximum extent.

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Data availability is not applicable to this article as no new data were created or analyzed in this study.

Conflict of Interest

All authors have no direct conflict of interest.

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