

To cite this article: Seok-Kyoo Kim, Ai He YU and Seong Ki Kim* (2021). STUDY ON CHARACTER DESIGN AFFECTING INTERACTIVE GAMES, International Journal of Applied Science and Engineering Review (IJASER) 2 (6): 11-19

STUDY ON CHARACTER DESIGN AFFECTING INTERACTIVE GAMES

Seok-Kyoo Kim¹, Ai He YU², Seong Ki Kim^{3*}.

¹Associate Professor, Department of Game Design and Development, Sangmyung University,
20, Hongjimun 2-gil, Jongno-gu, Seoul 03016, Korea

²Department of Game Design and Development, Sangmyung University,
20, Hongjimun 2-gil, Jongno-gu, Seoul 03016, Korea

³Assistant Professor, Division of SW Convergence, Sangmyung University,
20, Hongjimun 2-gil, Jongno-gu, Seoul 03016, Korea

DOI: <http://dx.doi.org/10.52267/IJASER.2021.2602>

ABSTRACT

Abstract: Game characters are indispensable in games with a storyline in that they are not only the avatar of the player in the game world but also the actors. As the core content of characterization, the characteristics of the game characters should be highlighted and shaped, and only the clear characteristics can support the characters with various characteristics. The vivid characterization can enhance the flexibility of gameplay and increase the market share and expand the economic benefits of the game. In this paper, the factors affecting the characteristics of the game characters and modelling techniques are studied in depth.

Among many elements related to game design, game planning and character design have been significantly considered, and have been actively researched. However, there have been no discussions on how to make and express the characteristics of the game characters. This makes characterization the most common but easily overlooked part of game work. In this subject, the characteristics of characters are the key to becoming independent individuals and are an important component of the design of the characters. At the same time, we summarize the shaping of characteristics of some game characters, make the game image fuller, strengthen its attractiveness to the player, and promote the development of game works and related industries.

KEYWORDS: Character Design, Personality, Interactive Game

1. INTRODUCTION

Regarding game design, the research of game planning and game characters is relatively more important, but there is little discussion on the characteristics of game characters. However, personality characteristics are an indispensable part of game character design. There have been a lot of game works that use characters as a marketing point in recent years. For example, in games where female players are the main group, the love of game characters has become one of the main reasons for attracting players to play games and purchase games and games. The shaping of personality characteristics can make the image of the game character more realistic and three-dimensional, strengthen the attraction to players, and drive the sales of the entire game from the perspective of the character.

The character design of the game is a key to support the game. Playing the role enhances the integrity of the game story, attracts players, and this results in obtaining huge economic benefits. This paper explores the characterization of game characters and analyzes and integrates the existing relevant data.

2. DESIGN OF GAME CHARACTER

2.1 Concepts

In the game, there are not only characters, but animals, plants, objects, monsters, machinery, and other things that are given “personality”, which can be called game characters. The evolution of game characters has gone through a process of change from abstract symbols to concrete forms, from simple and single to complex and changeable. From the development history of games, we know that video games started from board games and sports competition games. In such games, the “incarnation” manipulated by the player basically appears in the form of “symbols”, such as Atari's in the arcade game “American Football”. The forms of the two players are “O” and “X”, which only represent the player's position in the game. As various types of shooting games are brought into the public eye, “incarnation” has changed from “symbols” to “objects” or simple “images”.

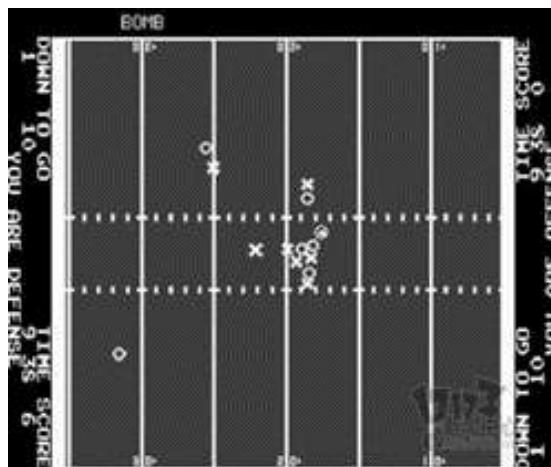


Figure 1: American Football

In 1986, Nintendo's "Dragon Quest" was officially released, laying the foundation for the main mode of Japanese RPG games. This type of game has a complete game story and missions, and the character characteristics of the game characters are more likely to be reflected because the characters appear more. At least, the plot is simple, and the character characteristics of the characters are relatively simple.



2.2 Characteristics

Personality is a reason for the emotional expression of a character. When characters with different personalities interact, the structural mode between the characters will extend a variety of different character interactions and game plots based on the differences between their personalities. Extensibility is reflected in the game structure mode:

Structural mode refers to a certain form formed by the combination of two or more things. The interweaving and influence between different characters can promote the development of the plot, and the

stories, differences, conflicts, and contradictions that occur when game characters with different personalities interact and so on so that it can stimulate the occurrence of game events and open new game tasks and plots.

The structure of game characters can be roughly divided into two types according:

1. Single wire type

In the early games and level-breaking games, due to the relatively simple game story, the character characteristics of the game characters are relatively single. This single character characteristic makes the characters basically have only one mode of getting along with each other. The brave and the Dragon King in the original “Dragon Quest” would be an example. The brave, as a partner of justice, wants to save the world and eliminate the dragon king and has positive characteristics such as justice, kindness, bravery, and fear of hardships and dangers. On the contrary, as a villain who intends to destroy the world, the Dragon King has negative characteristics such as being insidious, vicious, and arrogant. Therefore, when the brave meets the Dragon King, there will only be fierce conflicts. This single-line structure model has no complicated branches, making the game plot relatively simple, easy to be remembered by players but also easy to be forgotten.

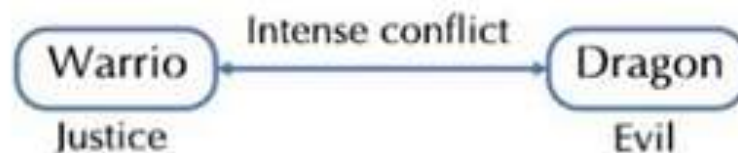


Figure 3: Single Line Game Character Configuration Mode

2. Net type

With the enrichment of game types and the increase in the proportion of the plot, the number of characters in the game gradually increases. Even if each character only has a single personality characteristic, the structural mode of getting along between the characters will still increase under the premise of the increase in the number [1]. Especially in modern games that focus on completeness, the main characters usually have multiple personality characteristics, so they will have different emotional states when facing different characters and events, and this enriches the game content.

Characters with different personalities have different ways of getting along with different characters. Just like in real life, the atmosphere when people get along with people with the same temperament is definitely

different from that of people with the opposite personality. This different emotional expression makes a difference in the interaction between characters.

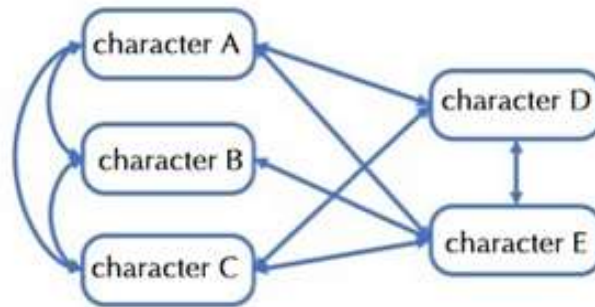


Figure 4: Internet Game Character Configuration Mode [1]

For example, in “The Legend of Zelda: Breath of the Wild”, the interaction between Princess Zelda and Link and hero Urbosa is different [2]. The princess is kind and has a sense of responsibility, but as the chosen person, she cannot inspire her ability to make her feel inferior and jealous of Link. Link is upright, brave, strong-willed, and taciturn. Earlier in the game, when the princess and Link are together, there are often scenes of unilateral and fierce complaints and quarrels. Urbosa is mature, sensible, tolerant, and kingly, and gets along with the princess in mostly calm, soothing, and encouraging talk scenes. These personality characteristics make the game characters interrelated, intertwined, and different ways of getting along, enrich the content of the game plot, and can also be used as a small story alone.

In summary, game characters with multiple personality characteristics have more expressions in structure mode than a single character. A large number of characters with different personalities radiate a wider network of relationships and extend a richer game plot. Excellent character shaping of game characters can increase the interaction between characters and make their behaviors look more meaningful.

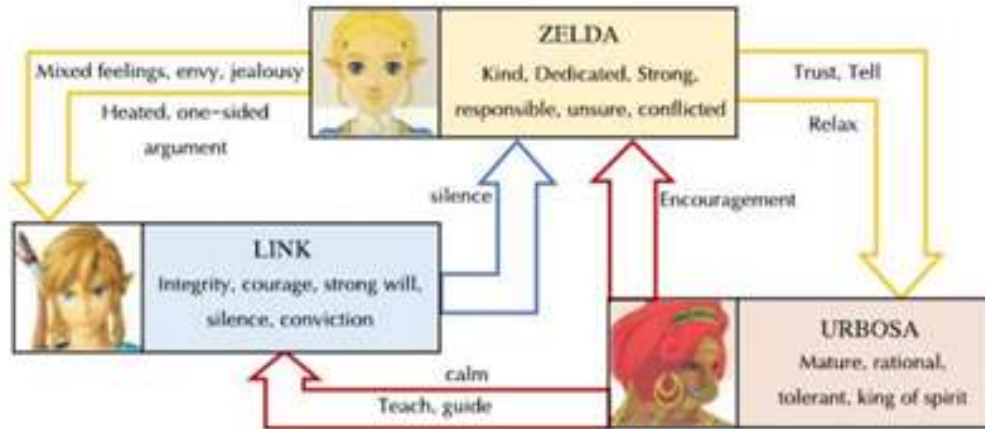


Figure 5: Character Structure Model in <The Legend of Zelda: Breath of the Wild> [2]

3. Features of Interactive Game and Immersion of Game

The impact of game design on the game is mainly in three aspects: game operation, role, and story. The operation of the game includes effective mutual exchange, timely feedback, and the style and degree of simulated reality. The characters personally define the role, maintain the personal sense of belonging of the game player, and encourage the game player to continue playing the game. Story refers to the connection between the background legend of the game and the real world. The character grows into a powerful plot of the game in the story. The gameplay of video games is achieved through the interaction of happiness, accomplishment, and proximity. The so-called “sense of substitution” refers to “game users are addicted to the game world and regard themselves as the protagonist of the game”. The proximity of the game is subdivided into environmental substitution and community substitution. The sense of environmental substitution is the environment that attracts users into the background of the game through the plot, scenes, and animation of the game. The influx of the community occurs in online games. Chat, community, union system, etc. are all available.

Another study divided the factors that affect players' involvement in the game into the environment, character control, storyline, and so on.

The environment refers to the entire game world surrounding the game player, regardless of the game player's survival, development, and entertainment in the game. The game environment is divided into a natural environment and a social environment. The natural environment is not limited to the background of the game, but also refers to the objective natural conditions of the game. The performance of the game platform, game picture quality, game challenges and operation methods. Role control refers to the

interaction between the choice of game roles and game control. The story refers to the natural, social, historical, and character growth process in the game.

4. CHARACTER DESIGN FOR INTERACTIVE GAMES

4.1 NieR: Automata

The language used by the game characters is definitely different from the language used in the system announcements in the game. As a game character with “personality”, what it says must conform to the setting of the view of the game world and the character's personality characteristics. Generally, the language of game characters is displayed in the form of words. In the case of deduction in words alone, different character characteristics can only be distinguished through the use of wording, punctuation, and modal auxiliary words.

“NieR: Automata” game dubs the main characters and system prompts throughout. In the game, the player plays as the humanoid weapon 2B in Yooha's army. When exploring the map, a message from the base comes from the headset and appears on the game interface in the form of text. The player seems to be in the game world. Communications Officer 6O, as a 2B liaison, has a sweet and sharp voice. When he regularly contacts and explores the situation, he often asks some questions that are not related to the mission, such as “What is the weather on the earth today?” Trivia will also cry to 2B in the task contact. And 2B's answer is usually only “understand”, “I don't think this is related to the task”, etc. The voice is slightly lower than 6O, and the pitch does not fluctuate too much. It can be seen that 6O is simple, cute, and hot with personality traits such as being friendly, sociable, sensual, and coquettish, while 2B lacks being emotional, but being more rational, cautious, and with clear goals and strong execution capabilities.

4.2 The Legend of Zelda: Breath of the Wild

In games, the color tone of the character is mostly reflected by the skin color and the color of the clothing. In the long-term accumulation of experience, people will unconsciously form a unique impression of a certain color, which is due to the influence of the times, regions, culture, nature and many other factors on people's psychological feelings of color. When we see a certain color, the brain will automatically recall the information related to that color and associate this information with the color in front of us to form a psychological feeling of the color. For example, red is used as a traffic signal in daily life.

The male protagonist Link in the “The Legend of Zelda: Breath of the Wild” series has oriental yellow skin and blond hair. The whole body is green clothes and hats. Seeing green, players will first think of words such as freshness, stability, peace, and safety. In addition to green, the colors of Link's clothing are brown, white, and yellow. The overall match makes players think of forests, life and other content. As a

hero against the devil, Link is upright, courteous, compassionate and has a strong sense of responsibility. He is calm and clear-headed. It is the game world that has saved many lives and brought peace and stability to all regions. Other game characters bring new life savors, so “green” is very much in line with the characterization of this character.



Figure 6: The Legend of Zelda, Link

The design of game character costumes and props is mainly affected by the objective and subjective aspects: objectively, the costumes and props of game characters are restricted by society and culture in the game world, the character's own identity, occupation and other aspects. Players can get a rough idea of the social background and culture under the game world view from the character's dress and props. The residents of Goron Village in The Legend of Zelda: Breath of the Wild mostly wear shorts and towels around their heads. This is due to the fact that Goron Village is located in the magma zone and the climate is very hot. Goron people feed on stone and mines for a living. Therefore, villagers holding hoes and wearing helmets are often seen. This kind of living environment and ethnic characteristics are reflected in the costumes and props of the characters. At the same time, costumes and props are also intuitive expressions of the role of the game. When players see the costumes and props of the game character, they can immediately infer the character's identity and occupation, and if it is not required by the plot, the settings of such costumes and props will not be changed at will.



Figure 7: The Legend of Zelda: Breath of the Wild, the villagers of the Goron people

5. CONCLUSION

The continuous growth of the market size of the game industry has brought huge economic benefits to related industries. A successful game works can attract players and give economic benefits to the game company.

Excellent shaping of game characters can extend the game plot from the structure mode and storyline between characters so that players can experience rich game content, achieve the purpose of attracting players and enhance their sense of substitution. The general framework of the character's personality should be designed according to the story background and plot task. According to the growth environment, personality and plot development of the character, the shape and appearance, color, clothing and props, expression and basic dynamics of the character are further described. Finally, in the specific stage of the game performance, designs of the characters' actions, expressions and language in different situations, are all of which must be unified based on the character.

REFERENCES

- [1] H. Shi, D. Zhaozhen, C. Yanjie, Digital game planning, Beijing: Tsinghua University Press, 2008.
- [2] J. Schell, Art of Game Design, CRC Press, 2008.