

Analysis of Mobile MOBAs Design Based on Maslow's Hierarchy of Needs Analysis Theory

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Abstract: Modern society is accompanied by the development of Internet information technology, game exploitation technology, and the rapid popularization of smart phones. Multi-player online tactical competitive mobile games have increasingly become one of the most important choices for teenagers to reduce stress and emissions due to the convenience of carrying equipment, popularity of use, and entertainment in the process of use. This paper analyzes the main game needs of mobile game players through the questionnaire, interview, self-participation method, and objective observation method, so as to construct the correspondence between the needs of multiplayer online tactical competitive mobile games and Maslow's hierarchy of needs theory. Based on this correspondence, this paper analyzes the game behaviors and attitudes of mobile game players towards the current major multiplayer online tactical competitive mobile games, and concludes that the positive influence of respect demand, aesthetic demand, and self-actualization demand of multiplayer online tactical competitive mobile games on players' attitudes is more obvious.

Keywords: MOBA, Mobile game, Maslow's hierarchy of needs, game player

1. Introduction

Along with the rapid popularization penetration of Multiplayer Online Battle Arena Games (MOBA) mobile games in multiple age groups, how to satisfy the needs of game players and enhance the playability of the game has become the focus of research by major game companies. Since gamers have the needs of ease of use, socialization, mind flow, and self-actualization, the possibility of the ancillary value acquired by players in the game can be enhanced through the setting of modules such as the identity of intimacy and authentication system [1-2]. In particular, a sense of identity can be achieved by common battles with friends, which simultaneously satisfies the intrinsic needs of socialization and self-actualization, and forming identity orientation and recognition [3]. However, most of the current papers that have analyzed the gaming needs of mobile game players are based on a certain part of Maslow's needs theory, and lack of analyzing the needs of game players from the macroscopic perspective of Maslow's needs. Therefore, through the research methods of literature review, questionnaire and interview, this paper analyzes the main game needs of mobile game players, and constructs the correspondence between the needs of mobile MOBAs and Maslow's hierarchy of needs theory. Meanwhile, this paper analyzes the behaviors and attitudes of mobile game players towards mobile MOBAs, and provides a design solution based on the theoretical basis of the psychological level for the problem of mobile MOBAs design.

2. Maslow's needs theory and the gaming needs of mobile MOBAs players

2.1. Maslow's theory of needs

In 1943, Maslow proposed Maslow's hierarchy of needs to divide human needs from low to high into five levels, including Physiological needs, Safety needs, Belonging and love needs, Esteem needs, and Self-actualization needs. At the same time, Maslow believes that cognitive and understanding needs and aesthetic needs should be in between respect needs and self-actualization needs [4].

Maslow's Hierarchy of Needs theory suggests that the motivation for each person's behavior is based on different levels of needs, and can be divided into two dimensions: low-level needs and high-level needs. Low-level needs, including physiological needs and safety needs, reflect the primitive instincts of human beings and are satisfied through external material conditions. Whereas high-level needs, including belonging and love needs, esteem needs, and self-actualization needs, arise from the social practicality of human beings. It is about interpersonal, emotional, and other spiritual needs, which tend to rely on internal conditions to be released. In addition, there is a sequential order in which higher- and lower-level needs are satisfied, with higher-level needs arising only when lower-level needs are satisfied or fairly satisfied. And with the gradual emergence of higher-level needs, their influence on individual behavioral guidance is stronger than that of lower-level needs [4].

2.2. Mobile MOBAs player game demand

Accompanied by the popularization and influence of network, contemporary young people's self-consciousness has obviously increased, which is mainly reflected in the clear intention of autonomy, and the need to recognize, construct, and realize self-worth. QuestMobile data shows that as of June 2021, the monthly active users in mobile games reached \$548 million, and the monthly per capita use time exceeded 20 hours. Among them, nearly 50% of paying users are under 30 years old, and approximately 30% are under 24 years old [5]. This also proves that increasingly young people relieve the pressure from life and study by using their fragmented time for mobile games. The results of questionnaires and interviews can be summarized into three perspectives on young gamers' demand for games.

The first and most pressing need is to relieve the pressure of study and life. People are currently under progressively pressure from their studies, families, and societies. The confrontational, entertaining, interactive, and instantaneous features of mobile MOBAs make them a low-cost and widespread way to reduce pressure, even accompanied by some verbal catharsis.

Second, the demand for games is to broaden interpersonal relationships. Young players have a greater demand for expanding social channels and enriching social experiences. Contemporary young people are eager to socialize with others through the achievements gained from the game, so as to make more new friends and be accepted by friends around them, thus gaining greater self-confidence and a sense of recognition [6].

Thirdly, to realize self-worth, mobile MOBAs often simulate players continuously improving their game level by ranking, listing and other sorting behaviors. And through the in-game identity shaping to meet the demand for self-realization, give full play to their potential and realize their self-worth [6].

2.3. Maslow's Hierarchy of Needs Theory and Mobile MOBAs players' needs

Based on the investigation and analysis of players' mobile game needs, it is possible to integrate Mobile MOBAs players' needs with Maslow's hierarchy of needs theory analysis, and the overlapping part mainly focuses on safety needs, belonging and love needs, respect needs, knowledge and understanding needs, aesthetic needs, and self-actualization needs.

2.3.1. Security requirements

Mobile MOBAs usually have strict game rules and balance design to ensure the fairness and justice of the game and prevent cheating and unfair behavior. At the same time, it usually provides real-time feedback mechanisms, such as killing enemies, destroying defense towers, etc. This kind of feedback allows players to directly see their own progress and achievements in the game, which gives them a sense of security [7].

2.3.2. Belonging and love needs

The social function of mobile MOBAs allows players to team up with other players and play against other players. Through its large player community and unique gaming culture, it enables players to interact with other players by participating in discussions, sharing gaming experiences and watching matches. Such interactions enable them to feel connected to their peers and the joy of sharing their gaming interests [8].

2.3.3. Respect needs

Mobile MOBAs usually have a point or ranking system that evaluates and ranks players based on their win/loss record and performance. This system allows players to compare their strengths with other players and gain a sense of social status and recognition. Players strive to improve their rankings in order to gain confidence, respect and win the admiration of other players. Meanwhile, in multiplayer online battles, players feel a sense of social respect when they play well in a team, win the game and are recognized by others because their contributions are understood and appreciated by other players [8].

2.3.4. Recognizing and understanding needs

Mobile MOBAs improve their gameplay by exploring the game world, using different characters, and learning and mastering various skill sets. This continuous process of skill enhancement encourages players to constantly learn and develop themselves, deepening their knowledge and understanding of the game world [7].

2.3.5. Aesthetic needs

Mobile MOBAs usually have beautiful game graphics, high-quality sound effects, smooth fighting effects and delicate character modeling, creating a game world that visually and audibly attracts players. Teenagers have a high demand for the delicacy of game characters, game visual effects and music, which can enhance the appeal and immersion of the game [8].

2.3.6. Self-actualization needs

Mobile MOBAs through the character development and skill enhancement, to explore their own potential, to achieve their own goals; its emphasis on teamwork and strategic planning, players need to cultivate a sense of teamwork, develop effective strategies and plans, play their own judgment, decision-making ability and leadership, exercise their own organizational skills and leadership skills; MOBA games through the ranking system, to participate in the competitive activities, with the Through the ranking system, MOBA games involve competitive activities, competing with other players, and obtaining honors and rewards by obtaining higher rankings and segments. In general, players can obtain rewards through their performance in the game, and then obtain the recognition of others and affirmation of self-worth [7].

3. The current situation of Mobile MOBAs - "King of Glory"

The more widely available mobile MOBAs in the current market include "Honor of Kings", "League of Legends", "Duel! Ping An Jing" and so on. Among them, "King of Glory" stands out, as of May 2017, the market penetration rate of King of Glory is as high as 22.3%, and the scale of daily active users has broken 200 million [1].

"King's Honor" is based on Tencent's "WeChat", "QQ" and other social platforms that dominate the industry to log in the game, and by teaming up with friends and players in the same city to play the game, it strengthens virtual and real relationships through social platforms. The game is based on Tencent's "WeChat" and "QQ" social platforms, which are dominant in the industry. The intimate relationships such as "couple", "master and disciple" and "brother" in "King's Honor" also strengthen the game's social attributes to enhance players' immersion in the game. The intimate relationships such as "couple", "master and disciple" and "brother" in "King's Honor" also strengthen the social attributes of the game to enhance players' immersion and interest in the game [3].

Secondly, the character design of "Honor of the King" is innovative, and the design of the game character enhances the combination with traditional Chinese culture, including the combination with historical figures and the use of ethnic styles in the design of the character's skin, etc. In addition, the variety of battle modes also enhances the gameplay. In addition, the game's playability has been enhanced by the variety of battle modes, including "Flame Mountain Battle", "Clone Mode" and other diversified battle modes[3].

In addition, "King of Glory" enhances game competition through the design of "King of Glory", "Strongest King" and "Supreme Starry Night" segments. The design of "King of Glory" enhances the competitiveness of the game. The construction of honor mechanisms such as "Peak Match" and "National Service" also maximizes players' motivation to pursue honor [9].

4. Discussion

4.1. Adapt to players' aesthetic needs from visual presentation and game content

According to the evaluation of "Honor of Kings" mobile game by the survey users, when the factors of seven need level evaluation dimensions exist at the same time, the influence of physiological need level evaluation on user satisfaction is weak, and its influence can be basically ignored. Among the remaining six dimensions, players first showed high concern for the game graphics and the design of the game characters. It can be seen that the visual expressions of the game, such as platform appearance, character image and skill effects, are the basic elements that determine whether users want to use the game product continuously. Only by meeting users' expectations can users be triggered to continue using the game.

In order to better meet the aesthetic needs of gamers and gain more users' recognition, it is necessary to create game narratives based on the excellent traditional Chinese culture with correct values as the guide. "Honor of Kings" adopts Chinese traditional design on a large scale in the creation of the game story and character design, which allows players to have more contact with Chinese images and stories. This not only enhances the content value of the game, but also promotes the dissemination of Chinese traditional culture while bringing the game closer to users [10].

4.2. Adapt to the player's respect and self-worth needs realization

Respect and self-actualization needs have the highest positive influence on players' attitudes towards the game, i.e. the more Mobile MOBAss can satisfy players' respect and self-actualization needs, the higher the positive evaluations they receive. The research found that players pay more attention to the play of individual talents and potentials in mobile MOBAs in addition to the basic entertainment

requirements. For mobile MOBAs, by enriching player exchanges within the matchmaking and creating creative game forms, it can increase the ways and abilities of players to obtain satisfaction during the game, which can attract players to actively immerse themselves. Therefore, it is also necessary to satisfy users' needs for socialization, respect and self-realization[11].

5. Conclusion

This paper analyzes the needs of game players and Maslow's hierarchy of needs theory to provide fundamental theoretical support for the design of mobile MOBAs. It is feasible to introduce Maslow's hierarchy of needs theory into the study of game design, because the analysis of different levels of needs of game players can expand the design concept of mobile MOBAs with more specificity, so as to find new ideas and theoretical support for the design of mobile MOBAs. In addition, the positive effects of respect needs, aesthetic needs and self-realization needs on players' attitudes in mobile MOBAs are more obvious and consistent with the authors' expected results. Gamers showed a high concern for the needs of whether they could play their personal abilities, gain friends' recognition and realize their self-worth in the game. This suggests that the design of mobile MOBAs needs to pay more attention to the needs of players at the psychological level. And with the increase in the number of teenage groups among game users, the time and energy spent by teenagers on mobile MOBAs is also increasing. Although the game platform restricts the game time of minors through real-name authentication, its ability to restrict minors' access to cell phone games is still limited, and the lack of minors' ability to enhance their own value of life is still highlighted. In this regard, the society, schools and families should increase their cooperation to enrich the platforms for youths to harvest the respect of others and to realize their value of life.

However, the research method of this paper is limited to literature analysis and questionnaires, the evaluation standards of questionnaires form is more subjective. Meanwhile, the scope of the interview survey used is only in the 20-year-old age or younger in author's surrounding environment, so the survey sample is relatively single. The follow-up study needs to construct a more objective and perfect evaluation system to draw more objective and scientific conclusions, and to expand the breadth and representativeness of the samples at the same time, such as by conducting a large-scale questionnaire survey through the Internet.

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