Title:

How to improve the gameplay and user experience of FPS games in the field of scenery design

Abstract

This thesis contributes to the explanation of how to improve the gameplay and user experience of FPS games in the field of scenery design. Firstly, an analysis will be implemented to have a research on the current situation of different FPS games. Then, a model that simulates the players’ stage will be created to search for the exact elements that affect the gameplay and user experience. Furthermore, a detailed conclusion will be made. Finally, some future works and limitation will be discussed to get a better and more subjective result.

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# Introduction

The FPS (First-person shooters) game has become a type of extremely popular games in the current game market. From the first FPS game Doom, released in 1993, to the most recent FPS game named PUBG and Fortnite, the in-game design and game model have been added and improved a lot by the game developers. The first impression that an FPS game gives to the players is definitely the scenery design, which have a dominant factor for players judging whether to continue playing this game or not. In the last 30 years, there is a big progress in this aspect due to the development of computer technology and people’s thinking innovation.

There is an old saying, first impressions are strongest. The user experience will largely be affected by the scenery design compared with others such as game mode, cheating rate, money charging that might be experienced after the whole game routine. Apparently, many existing game developers are still making effort to improve their, for example, stage background and UI to provide the players with a more comfortable and understandable gaming condition. The producer’s investment on this part is absolutely critical and vital, or they may lose a large number of players at the beginning phase.

## Motivation

Since that the scenery design has played such a important role, it deserves to make a research on it to improve the gameplay and user experience. As a matter of fact, there are still many scenery design problems in the current games although these games might have been sold for millions of dollars. The elaborate and satisfied scenery design will attract a multitude of fresh players when the game published, so that the profit and fame will be guaranteed.

## Goal

The goal of this thesis is to, first, find the exact elements in scenery design that have impacts on the user experience and, second, improve the user experience according to the elements found above.

# 2 Related background

## 2.1 FPS game

FPS games, which has a full name of First Person Shooter, is a type of shooting game. The player has the view of the character’s eyes in the game, usually equipped with a gun or other weapons, and shoot the enemies or the opponent. It is a game with the 3D environment, so these games tend to be somewhat more realistic than 2D shooter games, and have more accurate representations of gravity, lightning, sound, and collisions.[1] The combination of a keyboard and mouse are always used to control the characters on a personal computer.

With the development of society, to meet the needs from a different type of players, game developers have broadened the traditional FPS games by adding new elements such as puzzle, role acting, Battle Royale. Therefore, the FPS game is currently a very extensive concept.

To speak generally, the FPS game can be categorized into two types. PvE and PvP. These two game types include almost all the FPS games in the current game market. It is a macro game classification suitable for all the video games at present. Next, we only discuss the FPS game within these two types.

### 2.1.1 PvE

PvE (Player VS Environment) is a term used in video games. A PvE game is a game type that players fight computer-controlled enemies. [2] Usually, this mode can be played alone or with other online players and AI companions. With a first-person view, players can shoot the monsters and collect specific materials to accomplish the missions. The scenery design and story line are usually paid close attention by players.

### 2.1.2 PvP

PvP (Player VS Player) is a game type that players conflict with two or more live participants. [3] For an FPS game, it usually contains competitiveness and requires a intense reaction from the players. Many world famous gaming clubs cultivates the professional players for this type of game to win the tournament and prize. PvP games always lay emphasis on fairness and equity.

## 2.2 Color psychology

# 3 Approach

## 3.1 Game collection

In this phase, we will choose the exact two typical games that suits for testing and the whole research. One PvE and one PvP.

### 3.1.1 Market situation

There are currently thousands of FPS games in the market. Each of them has its own features and characteristics.

### 3.1.2 Game feature

### 3.1.3 Result

## 3.2 Game testing

## 3.3 Possible factors

## 3.4 Game Model Design

## 3.5 Testing and Analysis

# 4 Implementation details

# 5 Conclusion

# 6 Future works and limitation

# 7 References

1. Rollings, Andrew; Ernest Adams (2006). Fundamentals of Game Design. Prentice Hall. Archived from the original on 2009-02-17.
2. Bartle, Richard (2003). Designing Virtual Worlds. New Riders. p. 406. ISBN 0-13-101816-7. Player versus Environment (PvE). Players are opposed by the environment—that is, the virtual world. In a combat situation, this means player characters (PCs) fight monsters.
3. Bartle, Richard (2003). Designing Virtual Worlds. New Riders. p. 407. ISBN 0-13-101816-7. Player(s) Versus Player(s) (PvP). Players are opposed by other players. In a combat situation, this means PCs can fight each other.

# 8 Appendix