

An Analysis on how Colour Effects Emotion in Computer Games

Introduction

Long ago, psychologists have discovered that colour can affect emotion - how the colour blue is a calming colour, to how the colour red provokes the strongest emotional reaction, linked to passion, love - and anger. However, does colour affect how someone feels when playing a video game? The aim of this study is to discover if that is the case, and to create a game that should theoretically be calming to the person playing it.

Method

Creation of the game will be in Unity - a piece of free game development software used by professionalsand amateurs alike. The project designer has several years of experience in this piece of software.

As for the game genre, the chosen genre is a 3D platformer. This genre has been chosen due to its ability to be picked up and played by anyone. Due to the nature of the project a lot of research is also required, which will be compiled together to learn how exactly colours can influence emotions in an individual.

Results

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Game creation started in a standard unity scene, where I added a cylinder - the player object. I then proceeded to add a simple wall

and platform in order to make sure that collision was working properly with the game object, which I had applied a third person controller to so the player will be able to navigate the environment. This allows me



to quickly create a 3D platformer with simple textures in order to see if colour can affect emotion in computer games.

Through my research I have discovered calming colours - colours

such as light blue, pink, green, violet and yellow. These colours give me a good range of options on how to proceed with creating the game world - to create a worldthat seems natural, while still including the colours required to create a calming effect in the game. However, I do have to be constrained by colours that can be displayed on a standard RGB monitor - meaning the gamut of colours will be smaller than that of real life, and different to print colours (CMYK).



Conclusion

Throughout writing the dissertation and developing the game I have learned a lot about colour and how they affect the human psyche - from advertising to how computer games use colour. I've noticed how certain games use colour - not so much in games that go for a realistic look - but in stylized games. For example, I've noticed how games that have a aesthetic similar to cartoons tend to use more calming colours in early stages, then introduce colours that signify danger in later levels - such as the colour red, which is the colour that is said to provoke the strongest emotional reaction. The colour red is associated with danger and warning, and as one of the most visible colours on the spectrum helps the player to notice hazards in games more easily. We can also see this in real life scenarios such as the colour red being used for Stop signs and warning symbols, as well as in marketing for its ability to grab the viewers attention. What I once thought was a simple choice of choosing a colour has now turned into intrigue as delve more and more into the psychological world of colour.

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