Visual embellishment behind game design, and the impact it has on the player

Introduction

When designing video games or other interactive media, developers ideally would like it to be visually pleasing and satisfying to interact with. Developers are likely to add these entertaining features to their products, so their audience becomes invested. The study aimed to identify the impact of adding Juice to a game and what visual elements are generally more appealing than others.

Game Juiciness

Juiciness is a term in game design used to refer to how well the game feels, with a fun game feel being juicier than a non-enjoyable game. The name was popularised by Steve Swink's "Game Feel: A Game Designer's Guide to Virtual Sensation". The goal of a game's designer is to immerse their players with engaging and rewarding experiences, and this is generally done by manipulating input, response, context, aesthetic, metaphor, and rules in specific ways.

Candy Crush is the game most people use when describing juice. It is bright and colourful, has detailed animations with particle effects and satisfying sounds on every match. These features make the app one of the most addictive games to date, with 272 million monthly active players, and in total, players have spent 73 billion hours – or 8.3 million years playing Candy Crush. (According to creators King.)

Design and Implementation

The project aims to survey participants on what colours, shapes, and animations people find the most visually interesting. There is a range of clips prepared in a questionnaire with these different visual effects. The survey will help the study, by aiding us to discover if there were anything people enjoyed looking at more. Results will be gathered and put into a game made on Unity, coded in C#. However, the game would then be remade using different visual elements that were not rated very highly based on the questionnaire. An updated experiment will allow participants to play both games and then rank them to determine the impact the visual embellishment has made. This data could aid designers while creating interactive media in the future.

The extensive research gathered was that people generally preferred primary colours, triangles as shapes, and fast-paced, detailed animation. The knowledge gathered aided us in making two endless scrollers, games where the player dodges oncoming obstacles. Both games were the same; besides the aesthetic, context, and input and response feel; this was done to compare which game people preferred. The project will also implement details obtained from the surveys about the public's preferences when they are released.

Project

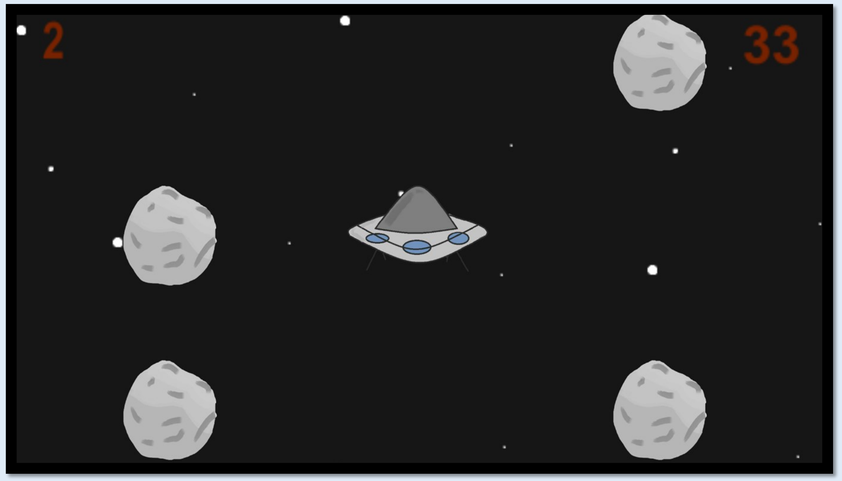

Figure 1 - A game that has neutral colours and is very dull to look at. It does not have hardly any detail put into the game feel, as there is no animation, less detail on movement quality, and only slight particle effects (when the player hits an asteroid).

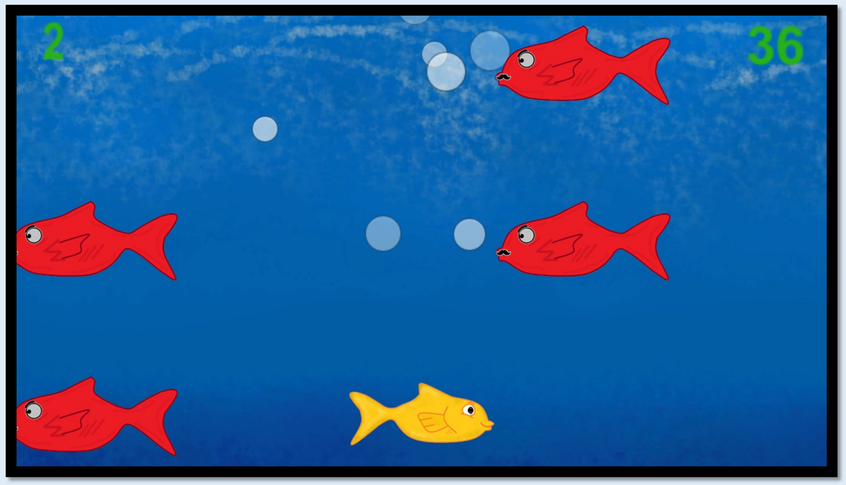

Figure 2 - A brighter game, using the colours gathered from research. The input and response feel was updated to give the player more back, both visually and audibly. When the player moves, there is also a distinct sound effect, screen shake, detailed particle effects and detailed bubble animation. These changes result in an incredibly satisfying game feel.

Future work

In the coming weeks, the 1st questionnaire will be released, and details from its data will be added to the games. Then, once the games have had their finishing touches, participants will be allowed to play both versions and will be asked to answer a few questions after their session. This data will be recorded and analysed to determine the impact of visual embellishment and game feel and let us study which aspects are more critical to a user than others.

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Gameplay built upon the work of Blackthornprod