Design Intent, Process and Final Reflection

Introduction

This section of the report intends to discuss the intention, process and reflection that went into the final iteration of "Rock, paper, scissors, dragon, ice" with regards to the feedback loops within the gameplay loop and other additions.

Figure 1: The Level Up UI Element

Design Intent and Process

In order to create a positive feedback loop for the player and to some extent, the opponent, a further data system was implemented that takes into account the secondary type of the attacking card each round. Both the player and the opponent now have a stat profile for each of the five possible secondary types. These type based stats influence a new second type of damage that the player can deal to their opponent when attacking. For instance if the player's *fire* stat is sitting at 10 and they play a fire rock card which counters the opponents ice scissors card. The player will deal a combination of base damage and type damage. The type damage will be a random roll between 8 and 12 (which is 20% either side of their fire stat). The type damage, unlike the base damage, is not affected by the opponent's defense stat. The intent of the type damage is to play into the player's decision making when choosing which card to play and when. If they are able to time a winning round to a card whose secondary type they are particularly strong in with regards to their stats, they can deal more damage that round. The number of rounds the player is able to win with a specific secondary type also influences the bonus they get for the corresponding stats if they manage to win the game as a whole. This also creates a positive feedback loop as it rewards the player for both winning and using more cards of a specific secondary type. The intention surrounding such a feedback loop is to try and influence both the player (and to a lesser extent the opponent) when building their deck and their decisions surrounding choosing a card each round. This is designed to create a level of strategy to compliment the randomness in the gameplay loop. These stats are communicated to players via a user interface element that can be seen in figure 1.

The recent addition of secondary type stats contributes to the feedback loop that to some degree was a part of the game in earlier iterations. The player can also deal extra base damage if they are able to attack by playing either a type that matches the secondary type indicated underneath their health bar or a type which counters the opponent's secondary type indicated under their health bar.

The system which calculates the base damage was also tweaked in this iteration. For instance, if the player has an attack of 10 and the opponent has a defence of 6, the base damage is comprised of a

random roll between 8 and 12 (20% either side of the attack stat) and is reduced by a random roll between 4.8 and 6 (20% to the left of the defence stat). The level at which the defence stats reduces the base damage is also altered by a defence nerfing stat which changes depending attacking player counters or is countered by the defending player's type. For instance, if the attacking player's card is water type and the opponent is fire type, the defence modifier drops to 0.2, meaning the defence stat would have less impact on the calculation of the base damage. If the attacking card was earth type (which fire counters) the defence modifier would rise to 0.35 which would increase the effectiveness of the opponents defence stat. The intention with these changes was to further add to the player countering system, which the player recognises as "Super Effective" when attacking with the correct counter in game.

Other minor changes to the combat that contribute to the feedback loop include the minor tweak to the critical hit system. Now if the opposing player's health drops below 10, the chances of getting a critical hit double the roll's range changes from 0-50 to 0-25. If the roll lands within the range of 0 to the player's accuracy stat, the attack is a critical hit which deals 66% more base damage. This rewards the player for getting the opponents health down and increases their chances of winning the game.

Reflection

The final iteration of the game was able to fix a lot of the issues of the previous versions surrounding the balancing and pacing of the stat increases. The introduction of the secondary type stats added another layer of depth and influenced the players in the desired fashion. The introduction of the deck builder before the player enters the game allows for a level of customisation and strategy that earlier iterations did not provide for players outside of the unity editor. The communication of player stats is vague but effective as it communicates the numbers under the hood with disclosing the full information behind the scenes. The damage calculation in earlier versions of the game was revamped in this final iteration. Earlier iterations saw the damage numbers varying quite significantly and unpredictably as the stats got higher. This system provides a more consistent damage calculation.

The overall game I felt worked as intended for the most part. The balancing of the third opponent to correspond with the leveling of the player through further play testing may have been necessary to improve this as the altered way of calculating damage was implemented fairly late on. The play testing was all done with the base stat profile in order to try and test if a skilled enough player could theoretically beat them. The final opponent was unable to be beaten with the starting level 1 character. The opponents increase in stat profiles in order to create difficulty and the player is able to grind the system to gain better stats to be able to beat all the opponents with less grinding to keep the game relatively short in this vertical slice format.