Prototype Reflection

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Introduction

My main goal as a designer for this micro-project was to make an enjoyable turn based game that did not use simple data design but to also not complicate it.

I wanted to start using prototypes in my design process so that I can quickly determine what is not working with the data and why it is not working. There were many prototypes but this reflection will address the most important information about the data design found during the prototyping.

Designing the Data to be used in the Game

First Prototype

From the beginning of the design I just wanted to get a very basic system done. One where the player can attack or defend on their turn. After the players turn is done then the simple enemy AI would just attack back. The player and the enemy had the same health, attack and defence.

There was simple data design in place and that was that if you attacked the enemy its health decreased, and if you chose to defend then the enemies attack was reduced by simply increasing your health. The initial stats were as follows: Attack = 3 Defence = 2 Health = 20

The issue with the data was that if the player went first and chose to attack the player would always win as the stats for the player and enemy were the same. This would decrease the enemies health to 17 according to the stats above. There is no way for the enemy AI to have more health than the player unless the player defends, but they would not as they have won from the first move.I needed to find a way for the enemy AI to possibly gain more health at one point or possibly have a comeback mechanic and to make the AI more interactive than just attacking.

Second Prototype

Starting with the enemy AI, I treated the enemy as if it was me playing. So if you have a lot of health you are most likely to attack more than defend yourself. So I sectioned the health into three parts to determine the chances of the enemy attacking or defending. The health was still twenty for the enemy and the player.

So if the enemies health was above or equal to fifteen then it has a 90 percent chance of attacking as it has a enough health to play around with, however the player does attack first so maybe defending is an option but the chances of defending is low. If its health was between fifteen and five the chances of attacking is changed to 70 percent as attacking is probably better but sometimes defence is the better option. Finally if the health was lower than or equal to five then the chances of attacking changed to 10 percent as in that situation you would most likely want to defend more than attack.

The last thing added to the AI was that if its damage value was greater than or equal to the players health then it will attack and not defend as then the enemy will win. There is no point in defending when

you can win.

The solution to the problem of the player always having more health than the enemy was chosen based off of a personal observation from playing games like "*Slay the Spire*" or "*Risk of Rain 2*". When you become weak you want to try and make yourself stronger so you can catch up to your opponent. So when the player and the enemy reached a certain health value their attack and defence stats were changed by increasing their attack the lower their health got (They changed according to the same health values as above to prevent the system from getting too complicated). On top of that I decided to give the enemy a higher attack value at the start as the enemy never starts, but has a lower defence value than the player.

This prevented the player from winning based off of going first, and started forcing the player to weigh in what the AI was going to do off the chances based on its health. The game started becoming more enjoyable to play and started giving incentive to use the defence option whereas before the player would just use attack and never defence.

Final Prototype

For the final prototype I wanted to add a comeback system if the player is losing. I wanted to create that feeling of a tense final chance to possibly win. I took inspiration from games like "*Dota 2*" and "*Overwatch*" and tried to implement an ultimate ability as how you use those abilities can change the game around.

However i did not have a ranking system like in "*Dota 2*" where you get the ultimate at a certain rank, so instead I implemented a concept from "*Overwatch*". The more damage per second you do the quicker you get your ultimate. For my game I made it so that the more times the player attacks the enemy the higher the chance of the players ability being executed. The player will be able to use the ability at any time however the chances of it executing depends on how many times the player has attacked the enemy.

It did add that tense moment, however the chances of the ability executing was never getting to 80 or 100 percent. I decided to increase the enemy players health and almost think of the enemy as a "boss battle" so that the player could attack more and build up the chance of the ability being executed. If played right then there was the possibility that there is a 80 percent to 100 percent chance of the ability executing but it was not always the case. The main worry for this was the player just using attack until 100 percent is possible and the ability executing, however this happened very rarely, but could occur. If the player did just use attack it often lead to losing.

Initially I just thought of using the ability as a comeback mechanic however another use was observed by using it to defeat the enemy AI without it being a comeback mechanic. I found that if the players health was lower than the enemies and the player attacked after the enemy defended you would increase the abilities chance of execution without taking damage. This was effectively building the chances of the ability executing for free. Chances could then be taken and it could put you in the lead earlier than expected.

This left the game in a state that I was happy with and I felt that I had reached my goal of the game being enjoyable.

Conclusion

I am quite satisfied with the outcome of the turn based game. The goal of the data design not being simple or overcomplicated was achieved. I challenged myself as a designer and have grown as a designer.

Prototyping helped a lot in designing the data and made the design process go smoothly and allowed me to get to the main goal. I have never really used prototypes when designing games but this made the experience much more enjoyable and easier to find problems with the design.

Appendices

How to Play the Game

All the stats in terms of how much damage you will deal, how much you will subtract from an enemies attack, abilities chances of executing and health is shown on your side of the game. The same goes for the enemies stats (Except the enemy does not have an ability). All you have to do is simply attack, defend or take your chances with using your ability.