Analysis of Micro Duel Prototype

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From the start of the project it was decided to take the basic mechanics of a turn based fighting game and use data design to increase the dynamic of risk vs reward. This ended with the decision to create the feeling of a sword fight, instead of abstracting entire portions of the fight, to follow the move-by-move beat of the duel. To achieve this feeling the mechanic idea was to add two different and opposite stats for each player that would increase with each of their moves. One stat would affect how easily a player could hurt the other, increasing with consecutive moves and promoting stringing together attacks, but the other stat would counter this by making the player more vulnerable to being hit the more they attacked. This also would require an action where players could reset both of these stats simultaneously, losing their bonus and their negative effect. This would recreate the concept of clashing, finding vulnerability in the enemies attack and choosing to push or break off based on risk.

With this new mechanic some other ideas were added to the plan, that being the replacement of a hitpoint system with a chance based system that directly linked with the two stats, so players would roll a dice on every attack to hit, and then roll again to wound. The win or loss states would simply be based on a max amount of wounds a character could accumulate before dying. The final decision made before the prototype started being built was to have characters have multiple body parts that could be targeted, just to add more depth to the choice of attacks, with each bodypart giving a negative effect if it becomes wounded.

The final gameplay loop decided on was player action, stat change, enemy action, stat change and then back to the player with different stats then the previous turn, giving them the chance to continue attacking and take the risk, or reset the stats and become safe again. So the dynamic of risk vs reward is a central part of the game and the main driver behind any player decision.

The Process

Before the coding started a barebones layout was created for the interface, and at this point how exactly the mechanics would be accessed needed to be decided on. The separate body parts on each character presented an issue as a single button click couldn't be used as a body part would need to be selected, so a two step process was used where the action would be selected and then the part to use it on, as well as allowing body parts to be clicked on without an action selected to see if they have been wounded. The added physicality of clicking an action, then a corresponding body part, also helps with giving the player more direct feedback about how their actions outcome. This new method presented an issue with how the player uses abilities on themselves, but this was solved by just letting the player use certain actions on themselves in the same way, by clicking an action button then on any part of their own body, keeping it consistent. As the enemy didn't need to click on the player's body to attack, the first layout just had a single target for the player, but later this was replaced with one for each bodypart just like the enemy character so that the player could see their own wounds and look at the effects.

The first layout just featured a scrolling box at the bottom that contained all the players actions, but there was no feedback or way of communicating to the player the stats of their

current action and its outcome. In order to rectify this an event log was added alongside the action menu that would report on if the action hit, wounded and where it was aimed. This also allows for the player to see the actions taken by the enemy character and is the main feedback the player receives in the game. Text to show the two stats was also added alongside the wound counter above both characters so the player would much more easily understand their chance of hitting and being hit at any moment.

Once the system for using actions and the relevant stat changes were added, the final bit of work needing to be done was the enemy logic system. At first the enemy just simply chose randomly from a list of actions, but this led to unstable behaviour with the enemy action erratically and either putting themselves at high risk or never opening up to being attacked by the player. So instead a graded approach was used where the enemy would look at their stats and current wounds, and then decide whether to attack or disengage. This created a middle ground with the enemy taking on some risk but always backing away when it got too high.

Reflection

Once the prototype was finished it did seem to meet the goal set out in the beginning, and with some last minute tweaking of the different actions it seemed to create a dynamic of risk vs reward successfully. It did this by giving players the continuous option to keep attacking, with higher chances of wounding but at the cost of their own vulnerability, but also giving them degrees of risk with actions that only had a small chance of hitting but also only increased vulnerability a little, and attacks that make you immediately vulnerable but are much more effect. So players don't simply have a binary choice of push or retreat, but degrees of push based on their and the enemies current situation.

Using the MDA framework, it can be seen how the counter balanced mechanics of two stats act to both incentive the player to take risks but also punishes them for going too far and not taking into account the other players own risk levels, giving rise to a dynamic of risk which has reward added to it by the straightforward chance based wounding which gives the player higher chances of winning by taking on more risk (Hunicke, Leblanc & Zubek 2004). But a core issues of the chance based nature of the game means that even a strategic player may still just not be able to win despite making good choices, and the opponent could switch from successfully killing a player to not putting up a challenge at all, making some games boring.

This system would definitely benefit from the addition of player skills or abilities that make them play differently from the opponent, as currently it is an even field in terms of access to actions, which means that the quality of the computer opponent directly affects the overall challenge of the game as it is purely the decisions made that determine the outcome. So adding further depth via more actions and possibly unique actions could create a better challenge and give the player more options in any situation, even possibly allowing them to take on more risk in certain situations they wouldn't have before.

References

Hunicke, R., Leblanc, M.G., & Zubek, R. (2004). MDA : A Formal Approach to Game Design and Game Research.