WSOA3003

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Short Analysis

Report on Turn-Based Prototype

The prototype is one that makes use of a simple state machine system and allows for the player to battle against a computer-controlled enemy in a turn-based manner, with the player and the enemy alternating in when they can take actions. It takes aspects of multiple other games such as some of the earlier Final Fantasy games (Square Enix, 1987) and Dungeons and Dragons 5th Edition (Wizards of the Coast, 2014). The following report will take a look at the designer's intention when developing this protype, the process in which the designer went about developing the prototype according to the intention, and a reflection on the prototype to assess whether it met the goals it was set to achieve.

The Final Fantasy games were used as inspiration in terms of the game's two-dimensional layout as well as the strategy element involved in which a player has to manage their available actions and decide when to perform certain abilities. Another inspiration was the D&D 5th Edition combat system for not only the variety of actions a player would have, but more importantly the aspect of chance that is associated with it. This is in reference to the system where the roll of some dice determines whether an attack is successful or not and how much damage is dealt to the enemy. The aspect of chance makes was appealing because the designer was interested in the tension that probability can create as a strategy may be well thought out but if the probability is not in your favour it causes the player to evaluate whether the strategy is one worth sticking to or if it should be abandoned for something new. The main intent was to use this aspect of chance and still create a somewhat balanced combat encounter.

The prototype currently features one player and one enemy. The prototype currently allows the player to take 3 actions: Attack, Heal and Flee. The player and enemy attacks automatically lower hp, however the amount of hp that is subtracted is randomized. The range of this randomization is 1-15 points which was tested to determine a random output This was determined based on player health and how long combat would take should the enemy deal the maximum damage on each of their turns and the player chose not to heal. The player has a maximum of 100 hit points while the enemy has a maximum of 130 hit points. With 100/15=6,6 (rounded to 7) , the enemy can win on a minimum of 7 turns whereas the player (130/15=8,6 (rounded to 9)) can win in a minimum of 9 rounds. As the randomized damage output is the same for both the player and the enemy, they have the same average damage output ((1+15)/2=8 damage), which means that on average the enemy will still win combat encounters as they can, on average win within (100/8=12,5 (rounded to 13)) 13 turns whereas the player would take (130/8=16,25 (rounded up to 17)) 17 turns, which is an additional 4 turns of play.

The player can restore missing hit points with the Heal action, and this restores 10 hit points when used. Deciding when to heal counters the balance that allows the enemy to win. However this would significantly draw out combat. Once the player uses an action to either heal, attack or flee, the enemy then takes over and attacks the player. After the enemy's attack, the player once again has

control and can perform an action of their choosing. As was previously discussed, the average damage output is 8 points of damage to hit points. As the heal action restores 10 hit points, this is 2 points higher than the average damage dealt. As this action is only available to the player and not the enemy, the player will be able to negate a single attack from the enemy (with average values) within 4 turns as 8/2=4. To make the combat equal, a player would have to spend 4 turns of healing multiplied by 4 turns of average damage dealt by the enemy (4*4=16) to tie with the enemy, meaning that to win they would have to heal for 17 turns. This is considering that combat is equal, however and as such during gameplay these values may fluctuate due to the random factor.

To reflect on the prototype, the game as it stands is not balanced and would instead qualify as a difficult encounter as is shown in the above calculations. On average a player will need to use 17 turns of only healing in order to win, which may seem like a long time. However, as a turn requires a single button press the maximum duration of a turn would be about 3 seconds, meaning that 51 seconds of play is allocated just to healing (3*17=51). As the encounter is difficult yet beatable as seen by the above odds and the aspect of chance, the game does create tension. However, this tension is not that large as the actions taken by both the enemy and the player are limited. As such, it might be worth experimenting with more diverse actions to test whether more tension would benefit the game. More balancing is also required should a more equal encounter also benefit the game.

References

1) Square Enix, 1987. *Final Fantasy*.
2) Wizards of the Coast, 2014. .