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MDA Analysis – Assignment one

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Data is found in every game and controls the systems, interactions, player emotions, game loops and much more. In this essay, the data design of Pokémon Red (Game Freak, 1998) will be critically analysed within the Mechanics, Dynamics and Aesthetics (MDA) framework by Hunicke, LeBlanc and Zubek (2004).

The mechanics are acted out through the player's "Pokémon trainer" exploring the game world of Kanto alongside their chosen 6 Pokémon. The player character earns Pokémon dollars through winning battles with Non-playable characters (NPCs), and this data value can be exchanged for items.

Although data values do exist in the player's character such as their walking speed, this essay will choose to focus on the Pokémon battling system. When randomly encountering a Pokémon, the system must first analyse the data sets held by the defending Pokémon and the player's active Pokémon.

Image 1 (Sopheria, 2015): Pikachu's important statistics are L6 or Level 6, ATTACK, DEFENSE, SPEED, SPECIAL and TYPE. All of these number values function to simulate battling.

Every Pokémon will have health points (HP) representing their amount of life left, an attack value that gets added to attacking moves value, defense which helps prevent a portion of incoming damage, a speed value that determines which Pokémon goes first, and a special value that is added to special attacks.

Each Pokémon is given one or two types, which is used to interact with the defending Pokémon's type or types, either giving a neutral, super effective or not very effective response. This will determine if an increase or decrease in damage output is required. In the case of the Pikachu in image 1, it is electric – meaning that it can deal an increased amount of damage to

water Pokémon but deals a decreased amount to grass Pokémon. The data that is assigned in these categories determines the usefulness of the Pokémon as a whole and will be discussed further in the dynamics section.

The move that a Pokémon uses also contains its own set of data values. Not only can it contain a value that will output damage or increase a certain statistic, but it also has a power point value that determines how many times the Pokémon can use the attack. Some moves also contain a randomised data values that determines if it will miss the defending Pokémon, or if the move will deal extra damage due to a critical hit. Furthermore, the player can find discs that can teach certain Pokémon important moves, allowing for not only new moves, but some can also have an effect on the environment and solve puzzles that the Pokémon trainer needs to resolve to progress the story.

The most pertinent example of data design through mechanics in Pokémon is the mathematical calculation that is run in order to determine the amount of damage a single move will deal.

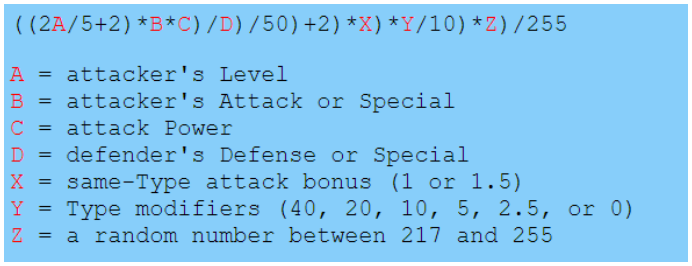

Image 2 (Mawufytuff, 2004): A thorough break down can be found on the website. Essentially the calculation takes into consideration all of the above attributes, the defendant's attributes, and the move's attributes to calculate damage.

So many data sets are seen in this data design, outputting in a clear and effective mechanic, with an engaging output for the player to enjoy. Near the end of a battle, the player has a chance to capture a Pokémon, and certain Pokéballs have different assigned data values that determine their success rate at capturing the defending Pokémon.

After every successful battle, the player's Pokémon are rewarded with experience which adds a data value to their current level progression. Once a certain value is met, the Pokémon can level up, and at certain levels, can evolve into a greater form of itself. This mechanic drastically increases the Pokémon's statistics, as well as allowing the learning of new moves.

It is only natural that an array of dynamics is to arise from such a complicated system. To begin with, a player's choice of Pokémon on their team all relies on their data values, thus creating a

strategic dynamic of decision making. The player must consider the Pokémon's total statistics, type, and available moves to successfully traverse through the different encounters. The consequence of losing a battle is that the player gets deducted money, and their Pokémon must be revived at a "Pokécentre", halting progression and punishing the player for their loss. This gives rise to the incentive of careful Pokémon and move choices once more.

The player must also be conservative with their money to buy new moves and healing items to avoid losing battles. When in battles, the player is tasked with remembering the statistics of the Pokémon, as well as choosing the most optimal moves to output the most damage. The player must also consider timing and be aware of the Pokémon's power points left on a move. It is evident that Pokémon Red requires strategic planning, careful decision making, preservation of certain data values and memorisation of statistics.

The battling system and interactions of data systems can evoke a few different emotions that contribute to the aesthetic of the game as a whole. The dynamic of remembering a Pokémon's statistics can reward the player with a sense of pride when achieved correctly, and the sensation from the process before choosing the move is one of nervousness and tension, but also excitement. Joy can arise when successfully using a move that has a low chance of hitting the defending Pokémon, but opposingly it can cause despair if failed. There is also a great sense of anticipation when levelling one's Pokémon, as the player is never notified of when a Pokémon can evolve. Shock can also be experienced if a player runs into a rare or new Pokémon, and they may experience despair if their attempt to capture it fails, or happiness if they do so successfully.

Pokémon Red as well as Pokémon Blue laid the foundations for future Pokémon games, and their impressive display of data sets and their interactions is shown through the myriad of dynamics and emotions that are created.

References

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