2116122
Daniel Burke
Retrospective analysis of prototypes
WSOA3003A

The aim of this project is to create a series of rapid prototypes preferably based on the turn-based genre, but there is the possibility of creating a prototype based on another genre to better showcase the brief requirements. These four prototypes were data design, communication design, level design and feedback loops; the best approach and the one which balanced the available time in the best manner was to structure the data design prototype to allow for the successive prototypes to seamlessly integrate alongside.

A modular approach was chosen to be the most effective format for time management and allowed for the process to be compartmentalized. The plan was to create a blend between the traditional turn-based combat games such as *Pokémon* (1996) and similar classic 90s RPGs and the 'choose your own adventure' interactive format. This was to create a seamless point and click immersive experience where the player would not have to change input formats from choosing combat options to navigating an environment using the WASD keys. This format also fit the theme of a dungeon explorer attempting to defeat the boss of a dungeon, this was inspired by the works of Edward Packard.

Prototype 1.0: Data Design

The first prototype was centered around Data Design and systems. The aim for the finished product or prototype was to develop a system that worked as a foundation, that was well programmed in an organized manner that allowed for the future integration of the next set of prototypes.

The timeframe allocated for this project was 9 days, between the 18th and 26th of March 2021. The time that was allocated to working on this project was 6 days but due to unforeseen issues with the local PowerGrid this time was reduced to a total of 2 days of working time.

Below is a table that roughly lays out the goals that were laid out for this project. Due to the above-mentioned time constraints some were unable to be achieved.

Project goals:	**Achieved**
Create a turn-based system.	✓
Format and modulate the scripts to allow for future integration.	✓
Allocate time for iterative playtesting and prototyping.	×
A clear and concise HUD to display the minimum data the player needs.	✓
Multiple combat encounters or loops	×
A way to navigate a level or area to allow for combat choice and variance	×
An experience system	×
Static variables	×
A selection of abilities	×

Table 1: The iterative project goals

The project goals were decided upon due to their overarching nature in relation to the other projects. Some of the not yet achieved goals were meant to be achieved in the upcoming projects and it was decided to exclude them from the first prototype so as to not over scope. Below is a short list of features that were proposed for the combat loop of the final prototype and were meant to be added into each related project.

Feature List:

A combat loop that can be replicated and built upon to allow for the base and more complex interactions such as:

- Abilities – Data design.
- Buff/Debuff system – Communication design.
- Multiple opponents and teammates – Feedback loops.
- Multiple stage combat – Feedback loops.

This feature list and project goals carried over to the three remaining prototypes with minor and major additions and tweaks to the goals.

Prototype 2.0: Communication Design.

Project goals 2.0:	**Achieved**
Create a turn-based system.	✓
Format and modulate the scripts to allow for future integration.	✓
A clear and concise HUD to display the minimum data the player needs.	✓
Multiple combat encounters or loops	✓
A way to navigate a level or area to allow for combat choice and variance	×
An experience system	×
Static variables	×
A selection of abilities	×
A healing system both in and outside of the combat loop	✓
Additional visual feedback in the HUD	✓

Table 2: Updated Project goals

Due to the previous time constraints and complications the timeframe allocated for this project was extended to the full 9-day period. This project focused on interpreting the data system for the player, adding visual cues and guides that allow the player to better interact with the systems.

This prototype proved challenging as there was already a communicative HUD in place from the first prototype. The main challenge was knowing how to balance animations and HUD elements so that there was not too much information or an overload that then resulted in a lack of immersion and interaction due to confusion.

Prototype 3.0: Level Design.

The third prototype was the most challenging. The previously believed traditional approach to level design was not applicable, the nature of the current combat loop focused prototypes needed a means to navigate between prototypes and this is when the 'choose your own adventure' format was implemented. Originally the goal was to add a navigation system similar to *Pokémon* (1996) or *Enter the Gungeon* (2016) where each room's contents was unknown until the player entered. The player is then unable to exit this room until all enemies have been defeated. This navigation and input system felt immersion breaking from an input standpoint which is why a point and click system was implemented. At this point the project was on Schedule having made up for time lost on the first prototype. The table below has been slightly altered to fit within the necessary guidelines for iteration 3.

Project goals:	**Achieved**
Create a turn-based system.	✓
Format and modulate the scripts to allow for future integration.	✓
Allocate time for iterative playtesting and prototyping.	×
A clear and concise HUD to display the minimum data the player needs.	✓
Multiple combat encounters or loops	×
A way to navigate a level or area to allow for combat choice and variance	×
An experience system	×
Static variables	×
A selection of abilities	×

Table 3: Updated Project goals

The next step was to add feedback loops.

Prototype 4.0: Feedback loops

The table below compacts the goals of the first three projects into a single achieved goal and lays out the next two goals for this prototype and final project.

Project goals:	**Achieved**
Create a turn-based system.	✓
Modulated implantation of prototypes 1 through 3.	✓
Positive feedback loop of health restoration after combat	✓
Earning a new ability and damage increase.	✓
Addition of sound to indicate possible enemy in the next room	×
Adding stackable buffs and debuff i.e., bleeding	×

Table 4: Project 4 goals.

The removal of an experience system was necessary as it felt jarring when integrated into the 'choose your own adventure' format, to reward and assist the player with regenerating health and increasing their damage two new rooms were added. These rooms can both only be accessed once, the health room allows for the player to flee a combat encounter at low health and proceed to a room where they will heal and gain another health flask, the second room increases a player's damage. If the player does not find this room before proceeding to the boss fight, they will still be able to increase their damage.

A set of mechanics that did not get implemented was a large-scale buff and debuff system that integrated into the ability system. This implementation failed due to the modular system being too restrictive and not being able to schedule it.

Another feature that was removed was recharging the healing pool by one after each fight, now it has been made random. The third change was making certain enemies immune to the starting stun ability. This added variety to the combat and changed the player's expectations when facing future enemies, adding abilities to the enemies proved challenging. This was approached from different angles at each iterative step but due to lack of technical skill this proved challenging and caused more issues. The biggest risk that these prototypes faced was the risk of overscoping.

While these issues were fixable, given enough time to expand upon the modular system as well as reorganizing the schedule but unfortunately other aspects of the project required more focus to meet the brief's requirements.

In conclusion the design process for these four prototypes was haphazard and a consistent schedule and methodology was loosely followed. This reflects in the final product as many features and goals were omitted from the final build, this was due to poor planning and time constraints. This series of prototypes was underestimated in the time it would take and lack of a serious and dedicated project plan adherence and formation. The assigning of tasks and accountability combined with a rushed schedule resulted in a project that fell short of expectations and goals.

References:

Game Freak, ILCA (1996) *Pokémon.* [Multiple Mediums] Nintendo Consoles. Tokyo: Nintendo.

Dodge Roll (2016) *Enter the Gungeon*. [Digital] Various Platforms. Austin: Devolver Digital