# **3 - Ludology**

## 3.1 Introduction

Round based survival games focus on the player surviving waves of enemies. Each game interprets this genre differently. Some challenge the player to simply survive as long as possible with no objective beyond that, while others combine survival with challenges or objectives to progress through.

These types of games remain highly engaging due to their replayability. Even though the core gameplay remains the same each time, the players experiences is different with each game. In round-based survival games, there are many different aspects a player can choose to focus on, such as how long they can survive, how many kills they can achieve with a certain weapon, or how quickly they can complete a challenge. This variety of self-imposed goals is what keeps players coming back, providing a fresh experience with each playthrough.

## 3.2 Key Examples

#### 3.2.1 Call of Duty225

First introduced in Call of Duty: World at War (Treyarch, 2008), Zombies mode became an instant fan favourite. This game mode started off as a side project that was made by a few bored game developers in their free time, this was then implemented as a bonus reward for completing the main game’s campaign. *This was a secret game. A mini-mode. An Easter Egg - whatever you want to call it - crafted from the passion and creativity of a team with little free time* – (Andy Hartup, 2016) What began as an experiment soon evolved into one of the major reasons players purchased Call of Duty titles each year.

In this game mode players are placed in a unique map where endless waves of zombies grow progressively stronger, faster, and more aggressive with each round. There are weapon upgrades, map unlocks, buildable items, and quests (known as easter eggs) that players can complete within different maps.

What makes Call of Duty’s Zombies survival system effective is the tight balance between player power and enemy difficulty. Players must constantly manage resources like ammunition and points while making strategic decisions about when to unlock new areas or upgrade their existing equipment. For example, a player must weigh the risks of spending points on the randomised “Mystery Box” and potentially receiving an awful weapon, against purchasing a wall buy weapon that is a guaranteed weapon of the players choice. These choices that make the player think quick under pressure and cause constant tension to help the game maintain a strong engagement loop.

#### 3.2.2 Killing Floor 2

Killing floor 2 (Tripwire Interactive, 2016) is a wave-based survival experience where players go up against waves of increasingly dangerous mutant creatures that results in a boss fight at the end. Unlike call of duty zombies, killing floor 2 introduces a class-based system where players can pick specific roles and weapon loadouts like medic and support. These roles alter the playstyle of the entire game as each class will have separate benefits and drawbacks, encouraging the player to take their time to plan out how they will play.

The wave system works by scaling not just the enemy numbers but also the spawn rates, damage output, and the type of bosses that appear. Between waves players can buy weapons and upgrades using in came currency earnt the within the rounds. What makes killing floor 2 fun is the pacing: fast , brutal combat combined with short preparation periods that keeps the players on edge. However, a weakness in this game is that without a full team solo players often find higher difficulties punishing as there is an ongoing issue with enemy scaling.

## 3.3 Application

Timeline Takedown took inspiration from mechanics that were present within this review. I wanted to capture the same sense of increasing pressure over time, as well as give players time to breathe and plan between the rounds.

In Timeline Takedown the wave system scales progressively, each new wave increases the number of enemies spawned, and the final wave includes a boss enemy. By controlling the enemy numbers and behaviour I was able to create a natural difficulty curve without needing overly complex systems.

At this stage in development, direct rewards between rounds were limited, but powerups were placed within the environment to help the player recover before the next wave began. Additionally, a short break was implemented between waves, where enemy spawning pauses for a few seconds. This system allows the player time to reload safely, reposition, and search the map for powerups. These breathing periods were important for maintaining the games pacing and giving the player a sense of preparation before the next wave, this feature was inspired by the grace period that Killing Floor 2 gives players.

In the future expansions of the project, I aim to add additional rewards such as a weapon upgrade system like the “Pack A Punch” system from Call of Duty. This allows players to invest points or resources to significantly upgrade their weapons. This would give players more meaningful choices and strategic options as the difficulty increases.