

Game Title: Dragon Realm (Modified Version)

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For my final project, I adapted the Python game *Dragon Realm* from the **Invent with Python** book. The goal of the game is simple: the player must choose between two caves, one containing a friendly dragon with treasure and the other containing a deadly dragon. I modified the game by adding a **three-life system**, a **life-loss mechanic**, and a **game-over condition**, as well as replay functionality. These changes increase tension, add strategy, and make the game more engaging.

According to the first video, *What Makes Games Fun*, games rely on patterns such as **uncertainty**, **risk vs. reward**, and **meaningful choice**. My game uses all three. The player doesn't know which cave is safe, which creates uncertainty. Choosing a cave is a meaningful choice because the player either gains safety or loses a life. The risk of losing lives adds emotional weight. Each round has simple rules, but the outcome is unpredictable, which keeps players engaged.

From the second video, *Opposition, Fairness, Luck, and Skill*, this game leans heavily toward **luck** rather than skill. The dragons' positions change randomly each round, so the player cannot rely on patterns or previous knowledge to win. However, there is still an element of **player agency** because the player controls which cave they choose. The addition of multiple lives adds fairness by giving the player more than one chance, balancing luck with opportunity.

The third video, *Basic Principles of Game Design*, explains that a game must clearly communicate its **goal** and **rules**. My game communicates the goal at the beginning through the introductory text: choose a cave and attempt to survive. Instructions like "Which cave will you go into? (1 or 2)" tell the player exactly what action they need to take. Feedback is also clear—if the player chooses the wrong cave, they are shown a message that they lost a life, along with their remaining life count. The suspenseful pauses and storyline enhance clarity and immersion.

The steps to achieve the goal are straightforward: read the introduction, choose a cave, and respond to the outcome. This loop continues until all lives are gone. This simplicity follows good game design, as explained in the videos, by giving the player a clear objective while still creating emotional impact through uncertainty and consequence.

Overall, my modified version of *Dragon Realm* meets the principles of game design by providing a clear goal, meaningful decisions, luck-based outcomes, and tension through

risk. The changes I made improve the game's engagement level and create a more complete gameplay experience while preserving the original design.