



Game Design Exercise about Chains: Structure, Motivation, and Depth

This is an excellent way to conceptualize game structure. When teaching game design students about structure, we must move beyond the basic concept of the **Game Loop** and introduce **Chains** as a more sophisticated design metaphor that accounts for player emotion, motivation, and depth.

Here are the instructions and a "chain" of activities designed to help your students implement these concepts effectively in their own projects.

Instructions for Game Designer Students: Understanding Chains

Game design theory uses metaphors—such as loops and chains—to help us describe the creation and reception of the art of gaming. While game loops are helpful for understanding repetition (the fundamental **reward and investment loop** where you kill, get coins, invest, and repeat), they offer limited insight beyond the fact that games are repetitive.

Chains are fundamentally different: they focus on a **specific, linked sequence of actions** that creates rising emotional investment and moves the player toward a defined destination or realization.

The Three Types of Chains to Implement

Your goal is to ensure your game design includes all three types of chains, as they define the emotional journey, player motivation, and game depth:

1. Action Chains (Emotional Investment) An action chain is a fixed series or string of actions that must be performed in a specific order.
 - **Design Insight:** This design creates a sharp emotional arc. If a player fails the chain early (on the first or second action), they might just feel bummed

out. But if they fail on the fourth or fifth action, they experience an "**epic fail**" because they were so close, raising the emotional stakes of the commitment.

- *Example:* Executing a complex combo in a fighting game.
2. Value Chains (Clear Chains/Player Motivation) Value chains are economic or collection-based chains where the *destination* of the activity is what gives the collection meaning.
- **Design Insight:** These are "clear chains" because the player knows exactly where they are going. Knowing the forward destination changes the player's **decision space** during collection. Collecting sticks is not inherently fun, but it becomes enjoyable when the player knows they are using those sticks to build something beautiful or useful that fulfills the core fantasy of the game.
 - *Example:* In a survival game, the desire to build a specific lighting fixture (the destination) means the player is motivated to search specifically for items containing **copper wiring**, rather than just selling every item based on its best cost-to-weight ratio.
3. Secret Chains (Depth and Discovery) Secret chains are hidden sequences of actions or requirements that the player does not initially know are linked.
- **Design Insight:** This type of chain adds significant depth to a game, even one with simple mechanics. The player may be triggering parts of the chain accidentally to start off with. The reward comes from the satisfying "**Aha!**" **moment** when the player finally connects the pieces, realizing that the object they walked past dozens of times was actually significant. This design is effective in systemic games like roguelikes because repeated runs increase the chance the player will **stumble across the solution**.
 - *Example:* Completing what you think is the game, only to realize a hidden chain of secrets leads to a "proper ending," such as in *Castlevania: Symphony of the Night* or *Spelunky*.

A Chain of Activities for Implementation Practice

To practice incorporating these concepts, follow this sequential **Chain of Activities**. You must successfully complete the requirements of one activity before moving to the next.

ActivityChain Type FocusGoal/DestinationDeliverable Requirements

Step 1

Foundation & Core Loop

Define the emotional foundation of your game.

Document 1 (The Core Fantasy): Outline your game's fundamental **reward and investment loop** (e.g., Kill → Loot → Upgrade → Repeat). More importantly, define the **core emotional fantasy** the game is pulling at (e.g., **Mastery, Creation, Discovery**).

Step 2

Action Chain

Create a sequence that maximizes the emotional payoff of failure.

Design Document 2 (The Combo): Design a single, specific sequence of **at least four actions** that must be executed in a specific order. Describe the *exact emotion* (disappointment vs. epic fail) the player will experience if they fail at the first step versus the fourth step.

Step 3

Value Chain

Ensure resource collection has clear meaning and changes player behavior.

Design Document 3 (The Destination): Choose a high-level creative or utility goal in your game (the destination). This destination must require a specific, usually overlooked **low-level resource** (like copper wiring). Explain how the presence of this destination *enriches the decision space* for the player while looting/collecting. This is your **clear chain**.

Step 4

Secret Chain

Introduce hidden depth through accidental discovery.

Design Document 4 (The "Aha!" Moment): Design a **three-step hidden chain** where the player is unlikely to know the steps are connected. The first step must be something the player would likely trigger **by accident** during early runs (e.g., feeding a particular item to a monster or performing a trivial action that spawns a fairy). Map out the sequence so that when the player finally puts the pieces together, they feel smart and realize the significance of something that was "**under their nose all this time**".

By successfully completing this chain, you will have moved your design from a repetitive loop to a structure rich with emotional arcs, clear player motivation, and layers of secret depth.