

Iteration & User Testing: From Prototype to Improved Gameplay

Prototype Description

Short paragraph describing your prototype:

- Type: Paper / Greybox / Digital / VR / AR
- Objective: What the player is trying to achieve
- Core mechanic: E.g., jumping, solving puzzles, collecting items
- Level or scene description: Briefly outline what the prototype looks like

Example:

The prototype is a simple 2D platformer in Unity where the player must reach the end of the level while avoiding obstacles. The core mechanic is jumping over gaps and obstacles. The level contains three main challenges: a series of moving platforms, a pitfall, and an enemy patrol.

Part 1: Playtesting & Observation

Method

- Tested with 2 players, each given the goal of completing the level.
- Observed silently and took notes on behavior, hesitation, and mistakes.
- Asked each player 3 open-ended questions:
 - 1.

What part did you enjoy the most?

2.

What felt confusing or frustrating?

3.

What would you improve?

Summary of Player Behavior

- Player 1 struggled with timing jumps on moving platforms.
- Player 2 repeatedly walked into the enemy patrol without noticing.
- Both players enjoyed collecting coins but missed some due to unclear placement.

Key Observations

- Players hesitated at moving platforms and enemy zones.
- Players failed more often near complex jump sequences.
- Engagement was highest during coin collection.
- Frustration arose from unclear visual cues for hazards.

Main Problems Identified

1. Timing of moving platforms is unclear.
2. Enemy patrol is hard to anticipate.
- 3.

Visual cues for obstacles and rewards are insufficient.

Part 2: Metrics & Feedback Analysis

Chosen Metrics

- Completion rate
- Time to complete level
- Error/failure rate (falling into pits or hitting enemies)
- Drop-off point (where players quit or restart)

Collected Data

Player	Completion Rate	Time to Complete	Errors	Drop-off Point
1	100%	4 min 12 sec	3	N/A
2	50%	6 min 30 sec	7	Enemy patrol

Interpretation of Results

- Player 2 struggled at the enemy patrol, confirming observation of confusion.
- Average time to complete is longer than intended, suggesting difficulty spikes.
- Error rate is highest in areas with moving platforms and enemy patrol.
- Drop-off occurs at unclear hazard zones, highlighting a design flaw.

Gameplay Quality Insights

- Gameplay is engaging during coin collection but frustrating in hazard-heavy areas.
- Visual and mechanical feedback needs improvement to reduce confusion and failure rate.

Part 3: Iteration & Improvement

Problem ↔ Solution Table

Problem	Solution / Change
Moving platform timing is confusing	Add visual cues (blinking or arrows) to show platform movement timing
Enemy patrol hard to anticipate	Add sound or shadow cues to indicate enemy approach
Visual cues for obstacles/rewards are insufficient	Highlight hazards with contrasting colors; make coins glow slightly

Implemented Changes

1. Added blinking arrows on moving platforms to indicate timing.
2. Added a shadow indicator and sound cue for enemy patrol.

Before / After Comparison

- **Before:** Players often fell into pits or got caught by enemies.
- **After:** Preliminary internal test shows players can anticipate hazards, reducing errors and

frustration.

Plan for Next Iteration

- Test again with at least 2–3 new players.
 - Measure metrics: completion rate, error rate, time to complete.
 - Gather feedback on whether new cues are clear and enjoyable.
 - Make further adjustments to difficulty and reward placement.
-

Final Reflection

- **What surprised you during testing?**
Players ignored coins in some areas despite them being obvious, showing placement matters more than visibility.
 - **What changed the most after iteration?**
Players can now anticipate hazards better, reducing frustration.
 - **What would you improve if you had more time?**
Refine enemy AI behavior and platform timing for smoother difficulty scaling; add tutorial or hints for first-time players.
-

Optional Additions:

- Screenshots or sketches of old vs improved levels.
- Short video clips demonstrating before/after gameplay.