

WORKSHOP 03

Rapid Prototyping on Paper

03

Hands-on — prove the game is fun before a single line of code is written

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Last session — it all goes on the table

Morning found the core. Afternoon made it communicable. Tonight we find out whether we were right

0111.00 – 12.00

Find the core

Core loop + design pillars

Deliverable: Loop Canvas

0214.15 – 15.15

Make it communicable

Game Design Document

Deliverable: One-page GDD

0318.15 – 19.15

Prove it is fun

Paper prototype + playtest

Deliverable: Tested prototype

The good news: if you discover tonight that you were wrong, you have just saved yourself several months.

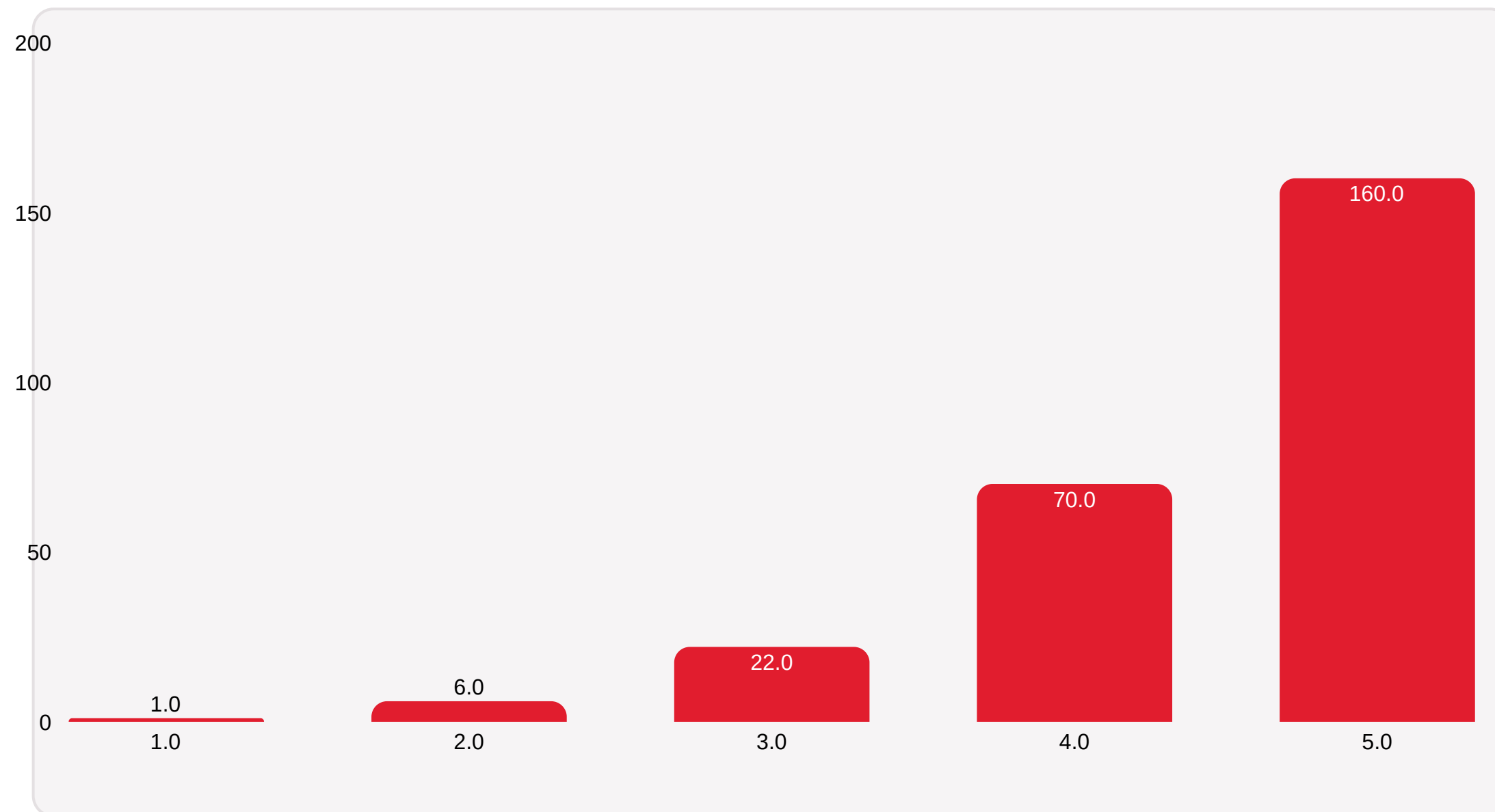
How this hour runs

Teaching 15 minutes · building, testing and revising 45 minutes

0 – 5	Open and reseal	New groups, and everyone's one-pager on the table
5 – 12	Why paper	The cost curve of change, and what paper can and cannot test
12 – 15	Hard rules + live demo	The demo game on a real table, then materials go out
15 – 35	Build, 20 minutes	TAs on every table. The target is playable, not finished
35 – 50	Cross-table playtest	Two rounds of seven minutes; designers observe and stay quiet
50 – 57	Change one thing	Pick the repeated failure, change one rule, update the one-pager
57 – 60	Close the day	The loop that never ends, and this week's assignment

The cost of finding out late

The question is not how to build faster. It is how to discover you were wrong as early as possible



The curve is the argument

The numbers vary by project. The shape never does.

The real cost is emotional

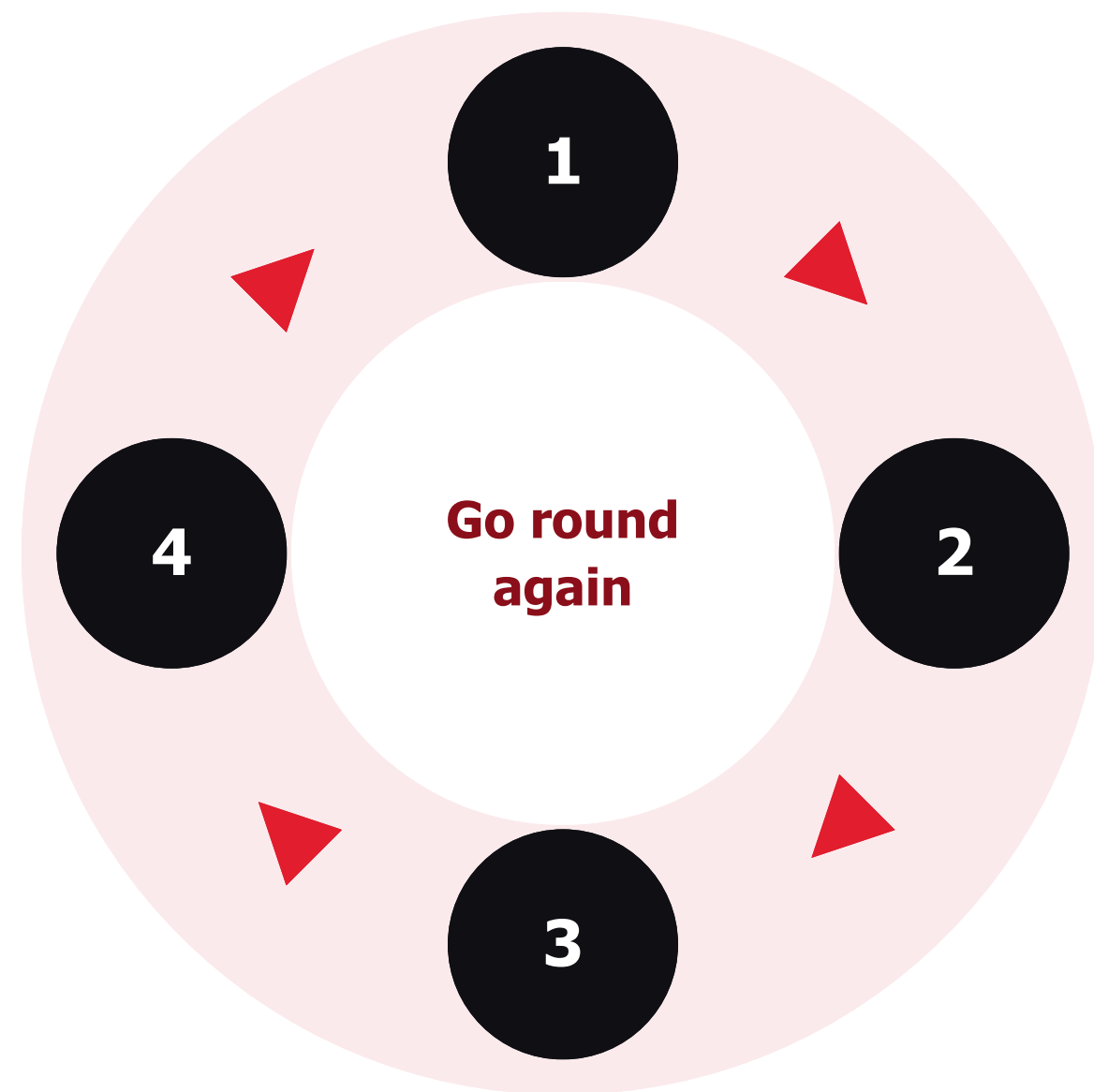
After three months you will not want to throw it away, even knowing it fails. Paper has no such gravity.

A prototype is an experiment

Not a small version of the game — a device that answers one question. Answer it and the prototype worked.

The design loop mirrors the core loop

Iterative design: build, test, learn, change — and the only real skill is how many times you can go round



- 1 Build**
Make the smallest thing that can answer your question. Twenty minutes, not twenty hours.
- 2 Test**
Put it in front of someone who is not you and did not help design it.
- 3 Learn**
Watch what they do rather than listening to what they recommend. Record behaviour.
- 4 Change**
Alter one rule, so the next round tells you whether that rule was the problem.

What paper can and cannot test

Match the tool to your question — if your question sits on the right, do not spend the evening on cardboard

TESTS WELL

- Rules and systems — clear enough for a stranger to play?
- Decisions — is the choice worth thinking about?
- Economy and number balance
- Goal clarity — do they know what they are trying to do?
- Teaching order — do they learn fast enough?

TESTS BADLY

- Feel of control — the weight of a jump
- Real-time timing measured in fractions of a second
- Atmosphere and dread carried by image and sound
- Visual quality and craft
- Technical performance

If your question is on the right, build a tiny engine prototype instead — but first check whether the left-hand questions are actually answered.

Four hard rules for tonight



One question, written before you build

Keep it visible in the middle of the table. For the demo game: will a player risk moving forward when they do not know where the threat is? Answer that and the evening succeeded.



It is not allowed to look good

No illustrations, no more than two colours, no neat cutting. The prettier it gets, the more it costs you emotionally to throw away — and throwing away is the whole point.



Twenty minutes is all of it

Finishing early is an advantage, because testing is what produces answers, not building. If you finish early, play it yourself once and fix what jams.

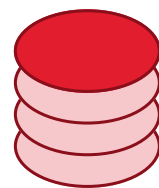
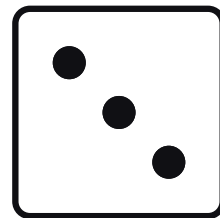
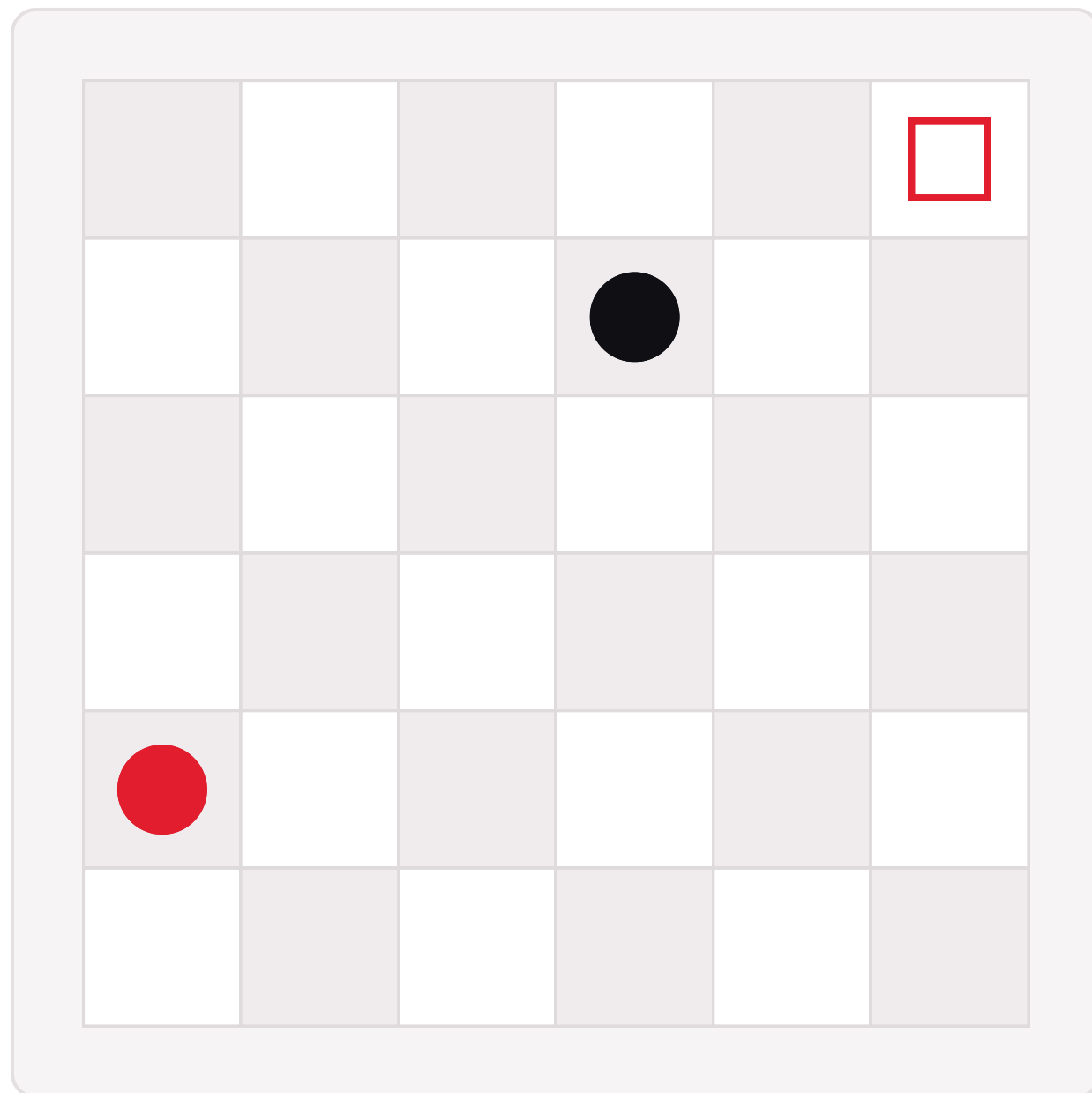


You are the computer

You do not need rules for every case. Adjudicate live — but write down every ruling you make, because each one marks a rule that is not yet clear.

Live demo — the prototype on a real table

This is what a prototype that works but looks terrible actually looks like



The player token

One bottle cap. Moves one tile per turn, or stays put to listen.



The hidden threat

The designer moves it. Roll each turn: 1–4 moves one tile toward the player, 5–6 moves randomly.



The goal tile

Reach the opposite corner and you win. Share a tile with the threat and you lose.



Cards, dice, counters

Face-down cards are information you do not have. Counters are lantern fuel, one spent every turn.

Turning systems into objects on a table

Use this while you build — find the row that matches your system and grab the object

System in the game	Object on the table	How to actually use it
Health or resources	Counters, caps, beans	Keep the pile in front of the player and remove one at a time, so loss is visible
Randomness	Dice or a face-down deck	Dice feel riskier; a deck lets you control the actual probabilities much more precisely
Hidden information	Face-down cards on the board	Flip when the player reaches that tile — an excellent stand-in for fog of war
Cooldowns	A card turned face down	Turn it back up after the agreed number of turns have passed
Inventory limits	A grid drawn on paper	Cap the number of slots so you can watch what the player chooses to drop
Levels and maps	Grid paper and tokens	Start at six by six — small enough to finish a round in five minutes
Enemy AI	Three lines of written rules	Write conditions: if the enemy can see the player, advance two tiles; otherwise roll for direction

HANDS-ON

20

minutes

The target is playable. Not finished, and definitely not pretty.

TAs are on every table. Raise a hand the moment you stall.

Hands-on: build your paper prototype

1. Write your one question and put it in the middle of the table where you can see it
2. Cut the game down to only the part that answers that question — the rest waits
3. Convert your systems into objects using the table still on screen
4. Write the rules on one sheet, short enough to read aloud in sixty seconds
5. Play it yourself once before the clock stops, and fix whatever jams

Check before time runs out

- One round has to finish in five minutes — if it runs longer, shrink the board
- There must be a clear win condition and a clear lose condition
- The player needs at least two options every turn, not one

THE ONE RULE YOU CANNOT BREAK

Players report problems accurately and propose solutions badly

When a tester says "you should add a map", what they are actually reporting is that they got lost and felt stupid. Sylvester's guidance is to weigh observed behaviour far above stated opinion: watch where they hesitate, where they misread, where they disengage. The designer's job is to hear the symptom and then diagnose it themselves.

Playtest rules — two sides, two jobs



If it is your game

- Explain the rules in sixty seconds, then stop talking
- Never defend, never say "actually it will have..." — in the real game you are not sitting beside them
- Only take notes, especially where they pause abnormally long
- Answer questions about rules, never about strategy



If you are the tester

- Think out loud continuously — "right now I am confused about..."
- Report what you felt, not what you think should be fixed
- Do not be polite; your politeness costs your friend months
- If you break a rule, do not apologise — that is the most valuable data of the night

Record these four things while someone plays

Do not record opinions. Record behaviour — these four columns capture almost everything you need

01

Where they got confused

Any question asked or rule broken marks a rule that is not clear enough

02

Where they paused long

A long pause that ends in a smile is a good decision. One that ends in a sigh means missing information.

03

Where they smiled or laughed

This is the part that already works. Do not accidentally delete it in the next revision.

04

Where they disengaged

The moment they glance around the room or reach for a phone is where your loop broke

Close with one question: "If you played again, what would you do differently?" The answer tells you what the game managed to teach.

HANDS-ON

15

minutes

Two rounds of seven minutes.
Rotate clockwise on the signal.

A TA owns the clock and the signal,
not you.

Cross-table playtest — play each other's games

1. One designer stays at the table; everyone else moves to the next table
2. Sixty seconds of rules, then the designer goes quiet and lets them play
3. Four minutes of real play — designer records the four columns, gives no help, offers no defence
4. Two minutes of closing questions, ending with "what would you do differently?"
5. On the signal, move immediately — do not tidy up

The sequence in each round

- The designer never touches a piece, however slowly the tester plays
- Testers think out loud the entire time
- If the game breaks mid-round, do not repair it — note where it broke and carry on as far as you can

Change one thing, then record it

The last seven minutes of building — the goal is one change, not a rebuild



Find the repeated failure

Read your four columns and look for what both testers hit. A problem that appeared once may just be that one person.



Change exactly one rule

Change three at once and you will never know which one worked. Write the new rule over the old sheet; do not start a clean copy.



Push it back into the document

Open this afternoon's one-pager and turn a box you marked undecided into something you now know.

The loop never closes — good news

1

Find the core, write it down, test it, then go back and change the core — round and round

2

Everything written stays a hypothesis until someone who is not you has played it

3

Skill in design is measured by how fast you discover you were wrong

THIS WEEK'S ASSIGNMENT

Take your paper prototype to three people who do not make games and record the same four columns.

Come back and tell us the one thing you never saw coming.

FURTHER READING

Where these ideas come from

A Theory of Fun for Game Design · Raph Koster

The argument that fun is the brain's response to absorbing a pattern, and that boredom arrives at mastery. This is the foundation for treating repetition, not spectacle, as the design problem.

The Art of Game Design: A Book of Lenses · Jesse Schell

The elemental tetrad, the interest curve, and the lens of the essential experience — the sources for how we located the loop and how we phrased pillars.

Rules of Play: Game Design Fundamentals · Katie Salen and Eric Zimmerman

The core mechanic, and the definition of meaningful play as outcomes that are both discernable and integrated. This is the test we applied to steps two and four of the loop.

Designing Games: A Guide to Engineering Experiences · Tynan Sylvester

Mechanics generate events, events carry emotion, and elegance means few mechanics producing many situations. This is why we worked on layers rather than adding features.