

WORKSHOP FOR ECONOMICS TEACHERS · CEE · OCTOBER 20, 2026

Find the game *in the economics*

Simulations, games and live experiments you can
build for your classes with AI

Florencia Gabriele, PhD

Professor of Economics and Finance, Berklee College of Music · Lovable Ambassador,
educator cohort

● Disclosure: I'm a Lovable Ambassador. The invite link I share at the end is my referral link.



B 30

S 30

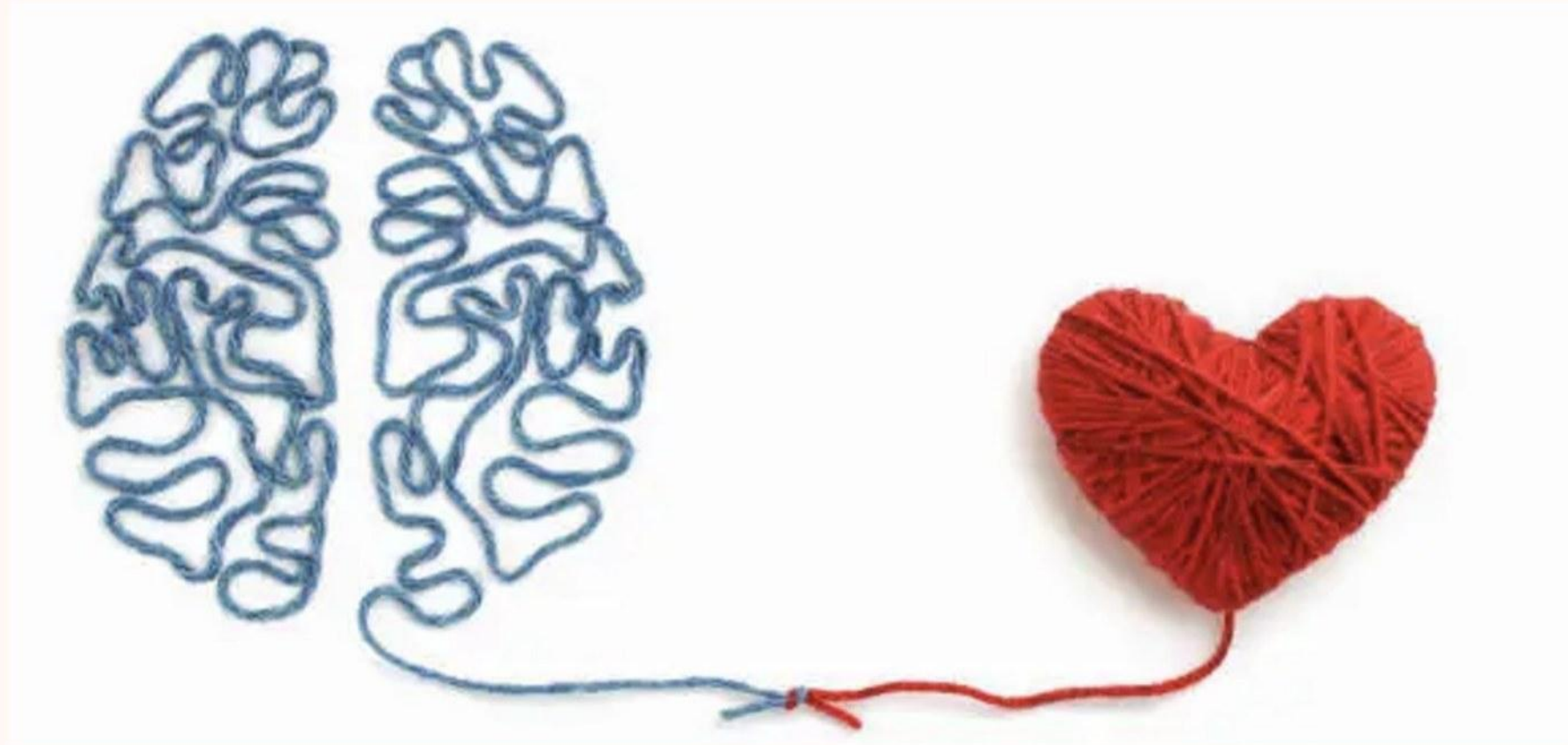
B 45

S 20

B 38

S 25

B 5



What is my true *purpose*
as an educator today?

WHO'S SPEAKING

Florencia Gabriele, *PhD*

- Professor of Economics and Finance, Berklee College of Music
- I train teachers in the US and Latin America to teach with AI
- PhD, Northeastern University · Project Zero (Harvard) · UDL
- Lovable Ambassador, educator cohort · NETA board member

I teach economics and finance to musicians — and I build the tools I use in class.

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Red, Yellow, Green: *Measuring Poverty*

Our webinar from October 1: the Poverty Stoplight, a self-assessment that treats poverty as multidimensional, ready for your economics class.

DIMENSIONS

6

INDICATORS

50

MINUTES

60

econedlink.org/webinar/red-yellow-green-measuring-poverty

● Free to watch with an EconEdLink account · Grades 9–12 and college



Scan to watch the recording

Six rounds, *from theory to your classroom*

ROUND 1

The classroom today

- 07 What changed this year
 - 11 Lecture alone isn't enough
 - 12 Technology is neutral
-

ROUND 4

Build it in plain language

- 26 Loved or lovely?
- 27 What is vibe coding?
- 32 What Lovable adds

ROUND 2

Why games

- 14 School is already a game
 - 17 Three needs every player has
 - 21 The evidence, with its caveats
-

ROUND 5

Hands on

- 38 Price-ceiling simulator
- 40 Live build: Shortage or Surplus?
- 42 My apps

ROUND 3

Flip the class

- 23 It was born in economics
 - 24 Play first, name it later
-

ROUND 6

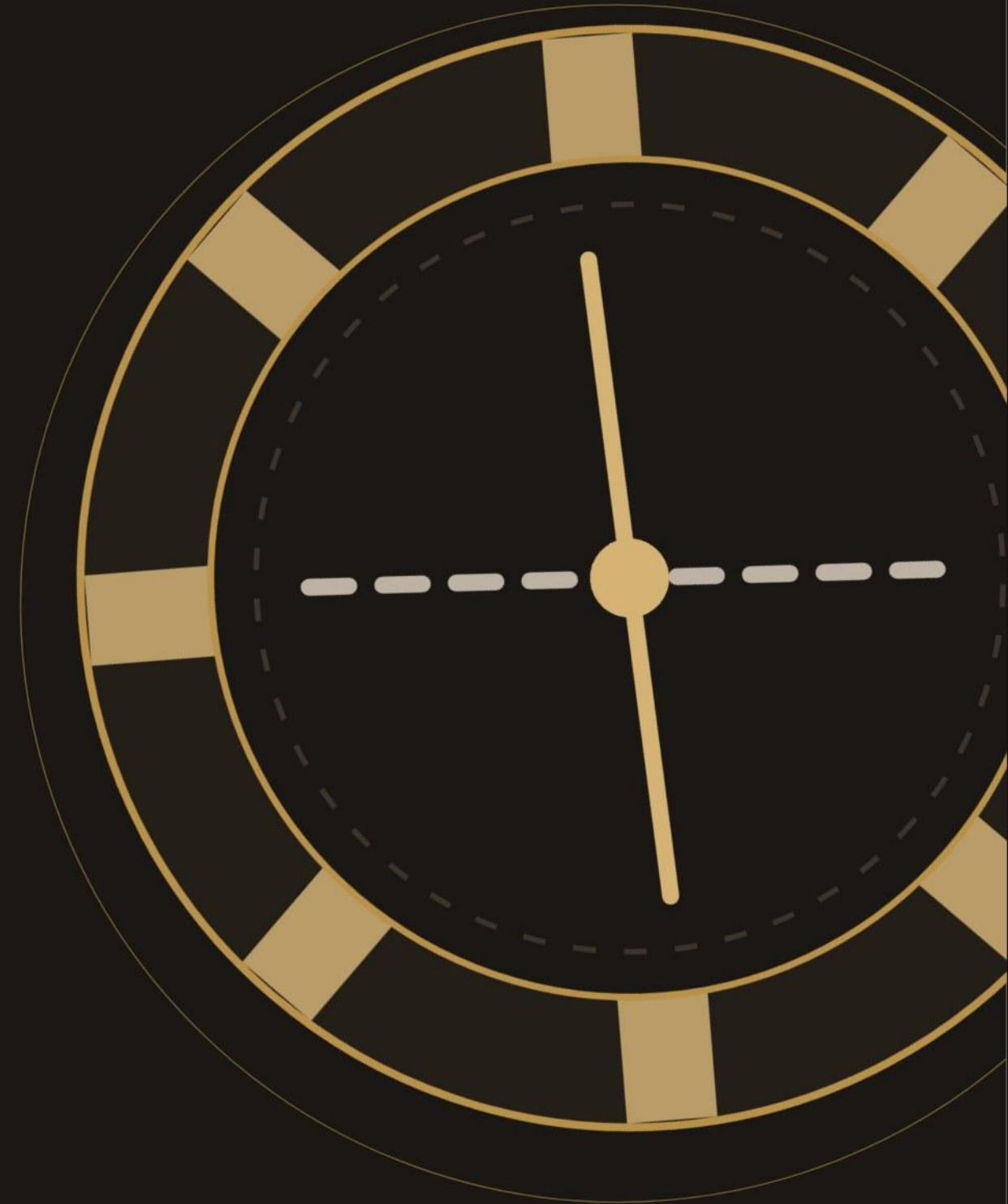
Make it stick

- 44 The debrief
- 47 Case: Ms. Ruiz
- 48 Your checklist

ROUND 1

The classroom *today*

- 07 What changed this year
- 08 Challenge 1: always on
- 09 One minute at AWE
- 10 Challenge 2: they check out as they grow
- 11 Challenge 3: lecture alone isn't enough
- 12 Technology is neutral



What changed *this year*

01 AI stopped answering and started doing.

A chatbot used to answer, and the student still had to assemble, decide and submit. Today an agent does the whole assignment: it searches, writes, builds the document and turns it in.

02 Detection isn't reliable.

There is no good detector around the corner. Chasing cheating is an endless treadmill.

03 The device left the desk.

In high school and college: glasses, pins and earbuds that see, hear and respond in real time.

The *always-on* classroom

Wearables filled the classroom with devices that see, hear and respond in real time: smart glasses, pins, AI earbuds.

The problem no longer comes in through the phone you can ask students to put away. It's invisible, and it sits on the student's face.



One minute at *AWE*

Smart glasses on the main stage, headsets on the expo floor, a ring that controls your screen. This is what walks into our classrooms next.

Which of these could you collect at the door?



Students check out *as they grow*

— Engaged with school, by grade (US)

REPLAY



22.6%

of US students were chronically absent in 2025; in 2019, 15.4%

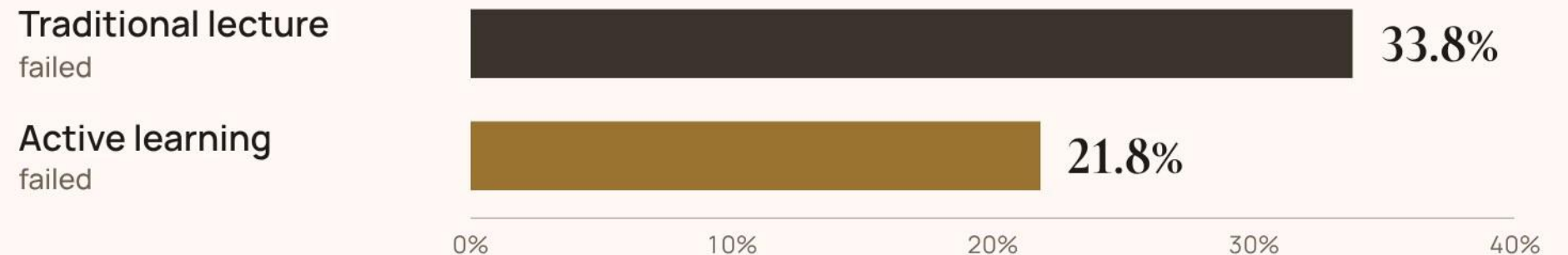
Chronically absent: missing 10% or more of the school year

From 75% in 5th grade to 32% in 11th: **43 points** lower.

Lecture alone *isn't enough*

1.5×

more likely to fail with traditional lecturing than with active learning



Average failure rate across 225 studies of undergraduate science, engineering and math courses (%)

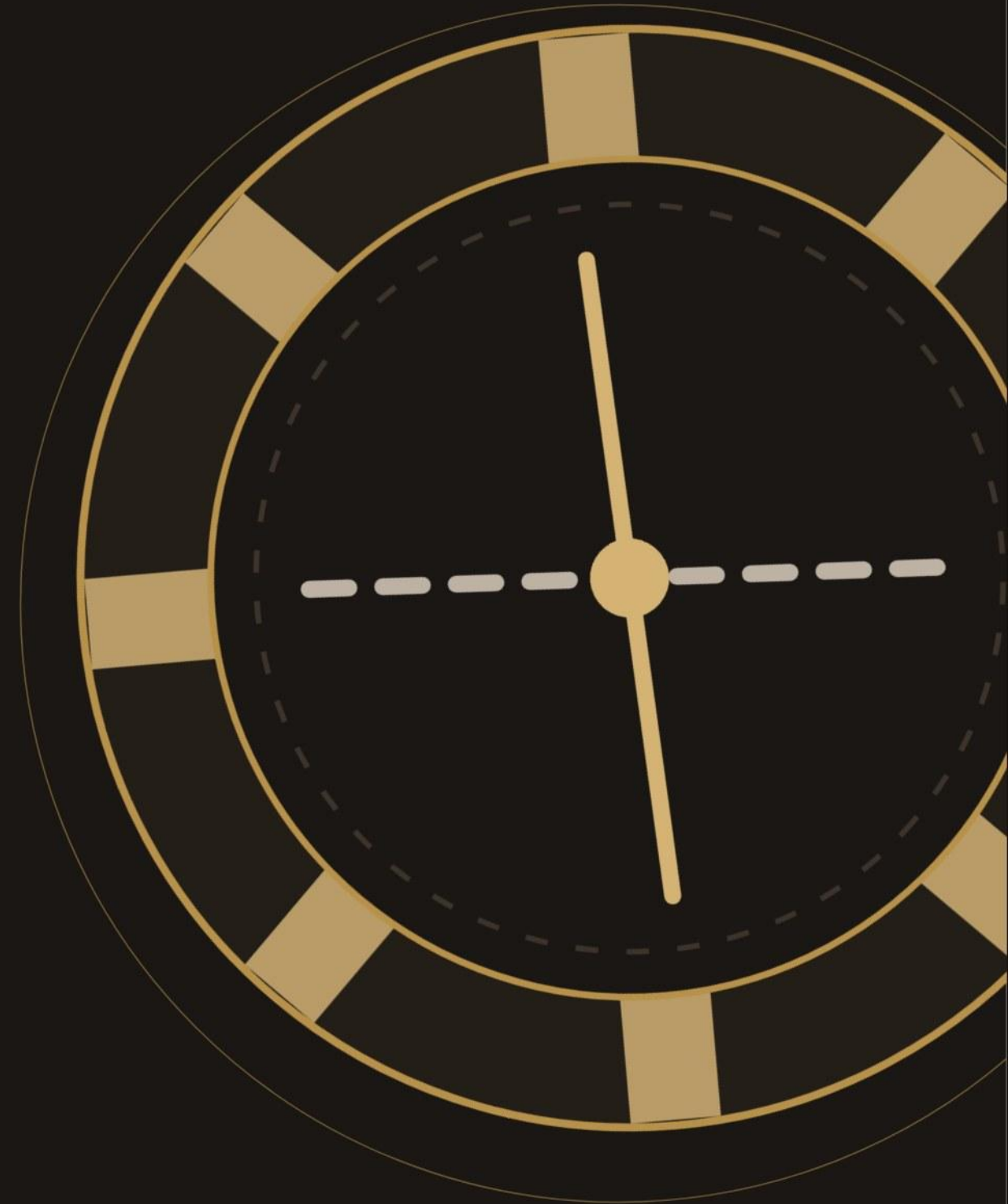
Technology
is
neutral.



ROUND 2

Why *games*

- 14 School is already a game
- 15 ...but a badly designed one
- 17 Three needs every player has
- 19 Skip the chocolate-covered broccoli
- 20 Myth or evidence?
- 21 The evidence, with its caveats



School *is already a game*

“A game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome.”

KATIE SALEN AND ERIC ZIMMERMAN, RULES OF PLAY (2003)

System

the school, its
curriculum and its
exams

Players

students, teachers,
families

Conflict

the learner vs. what
they haven't
mastered yet

Rules

syllabus, deadlines,
policies

Outcome

grades, transcripts,
report cards

...but a *badly designed one*

“Playing a game is the voluntary attempt to overcome unnecessary obstacles.”

BERNARD SUITS, THE GRASSHOPPER (1978)

	UNNECESSARY OBSTACLES	NECESSARY OBSTACLES
VOLUNTARY	<div>Game Uncertain outcome, or a puzzle if there’s one right answer</div>	<div>Entrepreneurship or activism: a project you chose, with a real purpose</div>
MANDATORY	<div>Punishment How most students experience school</div>	<div>Duty How “good students” experience it: extrinsic motivation</div>

Adapted from Fishman and Niemer, Gameful Learning (University of Michigan, edX). The “Duty” cell is my placement of an idea from the course.

ROUND 2 · THE AI TWIST

When it works, a traditional class is a puzzle: the teacher already knows the answer, and a solved puzzle has no replay value.

With AI, a student
can walk to the hole
and *drop the ball in.*

Don't ban the shortcut. Design obstacles worth choosing.

Three needs *every player has*

AUTONOMY

Choices that matter

Curated by the teacher: a short menu of meaningful options.

IN CLASS: TWO PATHS, ONE LEARNING GOAL

BELONGING

Being seen, being part of it

In large classes, students feel like a number.

IN CLASS: TEAMS COMPETE; NO ONE IS RANKED ALONE

COMPETENCE

A challenge you can win

Hard but achievable, with frequent, specific feedback.

IN CLASS: START AT ZERO, EARN POINTS, GET FEEDBACK NOW

Start at zero, *not at 100%*

TRADITIONAL CLASS

GAMEFUL CLASS

“Imagine shooting a basket and not knowing whether it went in until the end of the game.”

PARAPHRASED FROM FISHMAN AND NIEMER, GAMEFUL LEARNING

- ✗ You start at 100% and lose points
- ✗ The curve rations success
- ✗ Feedback arrives at the end of the term
- ✗ Mistakes cost you
- ✗ Everyone competes alone

A game designed for losing.

Skip the *chocolate-covered broccoli*

EXOGENOUS DESIGN

The game is a wrapper

Solve a sum, shoot an asteroid. Students learn the math... and that it's what stands between them and the fun.

ENDOGENOUS DESIGN

The mechanic is the concept

A classroom market: students trade, and the price emerges from their own decisions. Playing it is doing economics.

“You have to find the game in the content.”

SCOT OSTERWEIL (MIT), AS CITED IN GAMEFUL LEARNING

Economics already has the game inside: agents, rules, incentives and payoffs.

Myth or *evidence*?

MYTH OR EVIDENCE?

“Points and prizes always motivate more.”

MYTH OR EVIDENCE?

“Classroom experiments improve what students learn in economics.”

MYTH OR EVIDENCE?

“Teach to each student’s learning style.”

MYTH OR EVIDENCE?

“Flipping the class always improves results.”

The evidence, *with its caveats*

GAMIFICATION: LEARNING

GAMIFICATION: MOTIVATION

GAMIFICATION: BEHAVIOR

FLIPPED CLASS



Sailer & Homner (2020): 19 experiments on cognitive learning. Effect size (Hedges' g); benchmarks from Cohen (1988).

TWO CAVEATS

- Expected rewards undermine intrinsic motivation.
- In a high-school trial, stronger students gained from experiments; weaker students lost out.

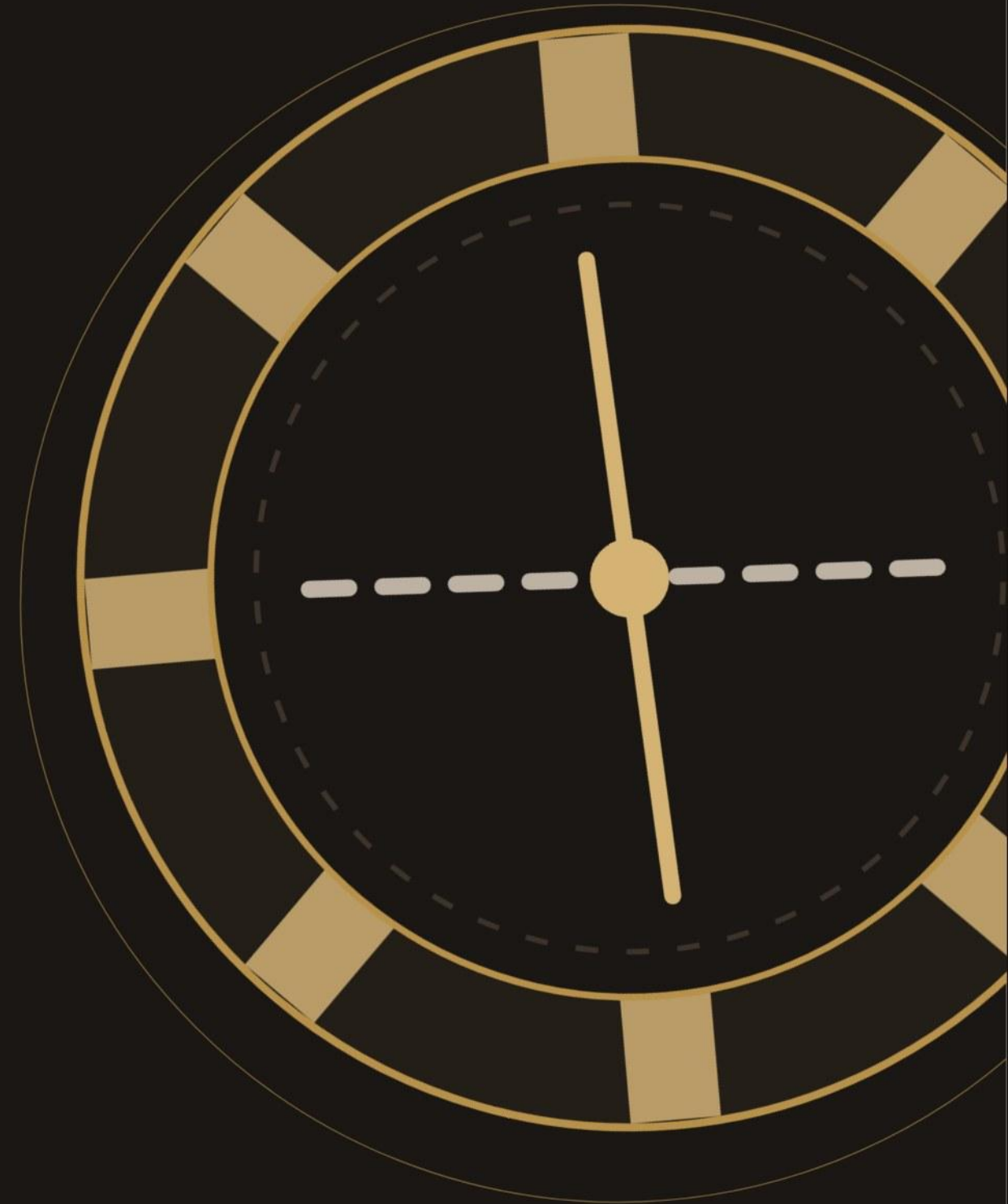
TEAM SCORES, NOT INDIVIDUAL BRIBES, AND A STRONG DEBRIEF

ROUND 3

Flip *the class*

23 Flipping began in economics

24 Play first, name it later



Flipping *began in economics*

ORIGIN · 2000

The inverted classroom

Lage, Platt and Treglia moved lectures out of class and used class time for experiments and group problems.

EVIDENCE

0.37

average effect across 15 meta-analyses with 156,722 participants

CAVEAT

West Point trial

Gains in math, none in economics... and a wider gap in math.

Flipping frees the time. *What fills it decides the result.*

ROUND 3 · DOING BEFORE TELLING

Flip the order inside the class,
too: let students play the market
before you ever say “supply.”

Function first, vocabulary later.

RICHARD HALVERSON, IN GAMEFUL LEARNING · PARAPHRASE

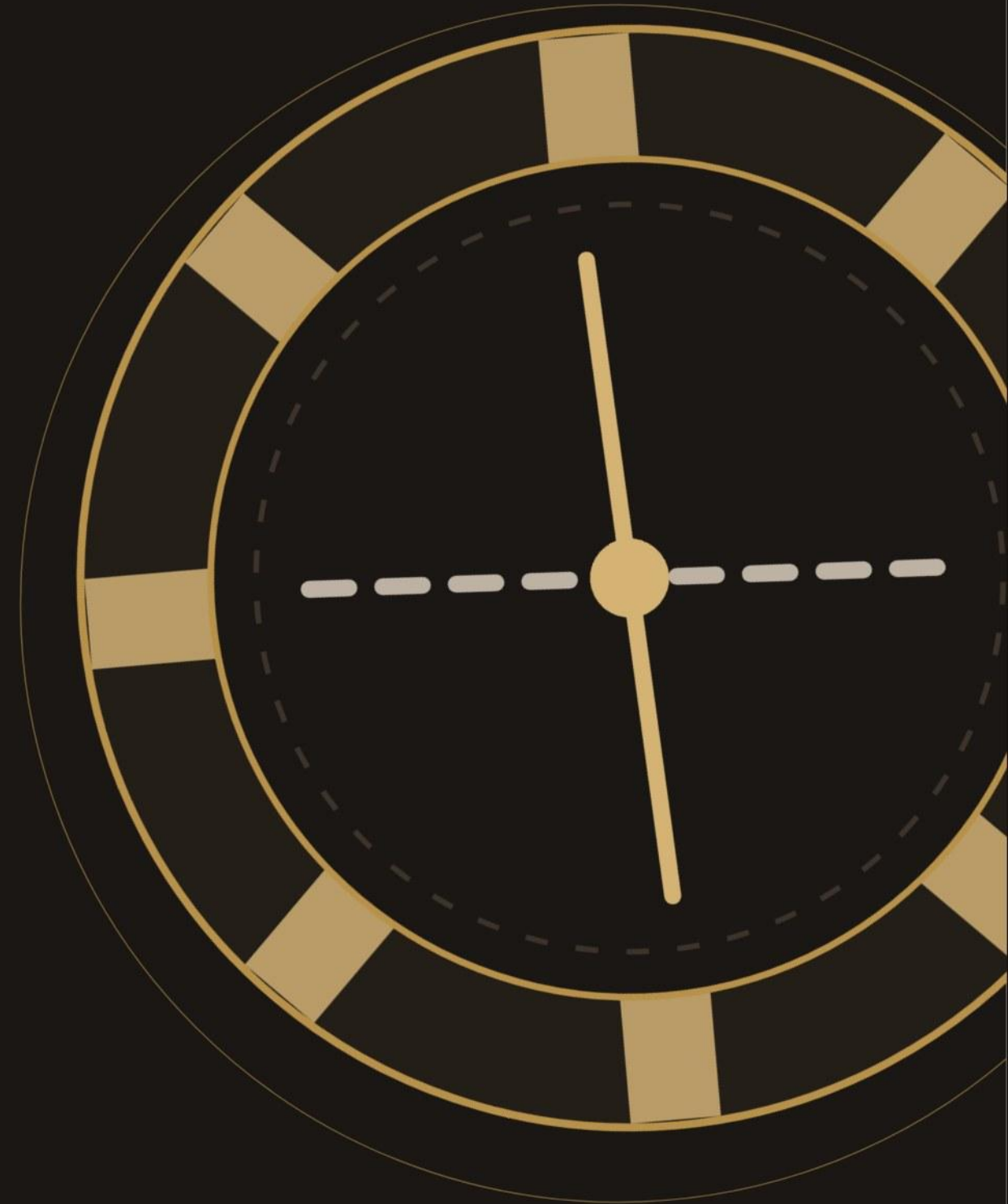
Doing before telling prepares students to learn from the telling.

SCHWARTZ AND BRANSFORD (1998), “A TIME FOR TELLING”

ROUND 4

Build it *in* *plain language*

- 26 Loved or lovely?
- 27 What is vibe coding?
- 28 What changed in 20 months
- 29 You already have the skills
- 30 The vibe coding toolbox
- 32 What Lovable adds





ROUND 4 · LOVABLE

Is it better to be
loved or *lovely*?

Try being  **Lovable**

*“Man naturally desires, not only to be loved, but
to be lovely.”*

ADAM SMITH, THE THEORY OF MORAL
SENTIMENTS (1759), III.2.1

● Disclosure: Lovable Ambassador, educator cohort.

What is *vibe coding*?

Building software by describing what you want in plain language. The AI writes the code; you test it and steer.

FEBRUARY 2025

“There’s a new kind of coding I call ‘vibe coding’, where you fully give in to the vibes...”

ANDREJ KARPATHY, ON X

NOVEMBER 2025

Collins Word of the Year

From a post to the dictionary in nine months.

FOR TEACHERS

You design. The AI codes.
And you test it with real students.

The tools sprint. *Pedagogy doesn't.*

FEB 2025



“Vibe coding” is born

NOV 2025



Collins Word of the Year

APR 2026



~~Sora app shuts down~~

MAY 2026



~~ChatGPT drops canvas~~

JUN 2026



Lovable preview toolbar

JUL 2026



NotebookLM → Gemini Notebook

“Vibe coding” is born

Andrej Karpathy describes on X a way of coding where you fully give in to the vibes and forget the code even exists.

FOR YOUR CLASS

Explaining a task well is now a kind of programming.

You already *have the skills*

WHAT TEACHERS DO

Explaining a task clearly

Scaffolding, one step at a time

Anticipating misconceptions

Giving feedback on student work



WHAT VIBE CODING NEEDS

Writing the prompt

Building in short loops

Designing challenge and feedback

Testing and asking for fixes

The vibe coding *toolbox*

Chat canvases

Claude artifacts · Gemini Canvas · ChatGPT code blocks

One-screen tools: a timer, a quiz, an interactive graph.

YOU GET A WEB PAGE

App builders

Lovable · Replit · Bolt

Real apps: saved data, logins, AI inside, a stable link.

YOU GET A PUBLISHED APP

Coding agents

Claude Code · Cursor

Large projects, for people comfortable with code.

YOU GET A CODEBASE TO MAINTAIN

What teachers *are building*

Games

Review games, flashcards and quizzes with instant feedback.

Simulations

Move a slider and the model responds.

Experiments

Everyone plays on a phone; results go on the projector.

AI tutors

With your rules: they ask questions and never give the answer.

Teacher tools

Group makers, timers, rubrics, planners.

Course pages

Your course, a student showcase, an event.

What *Lovable* adds

PLAN MODE

Thinks with you

Asks questions and proposes a plan before writing any code.

CLOUD

Data that sticks

Database, logins and file storage, built in.

PREVIEW TOOLBAR

Click and change

Select an element, edit text in place or draw a note.

AI

AI inside your app

A tutor or feedback with one prompt; billed by use.

VERSION HISTORY

Go back

Every change is saved; it restores code, not data.

PUBLISH

A stable link

On lovable.app; your own domain on a paid plan.

COLLABORATION

With colleagues

Build together in the same project.

GIT SYNC

You own the code

GitHub, GitLab or Bitbucket; host it anywhere.

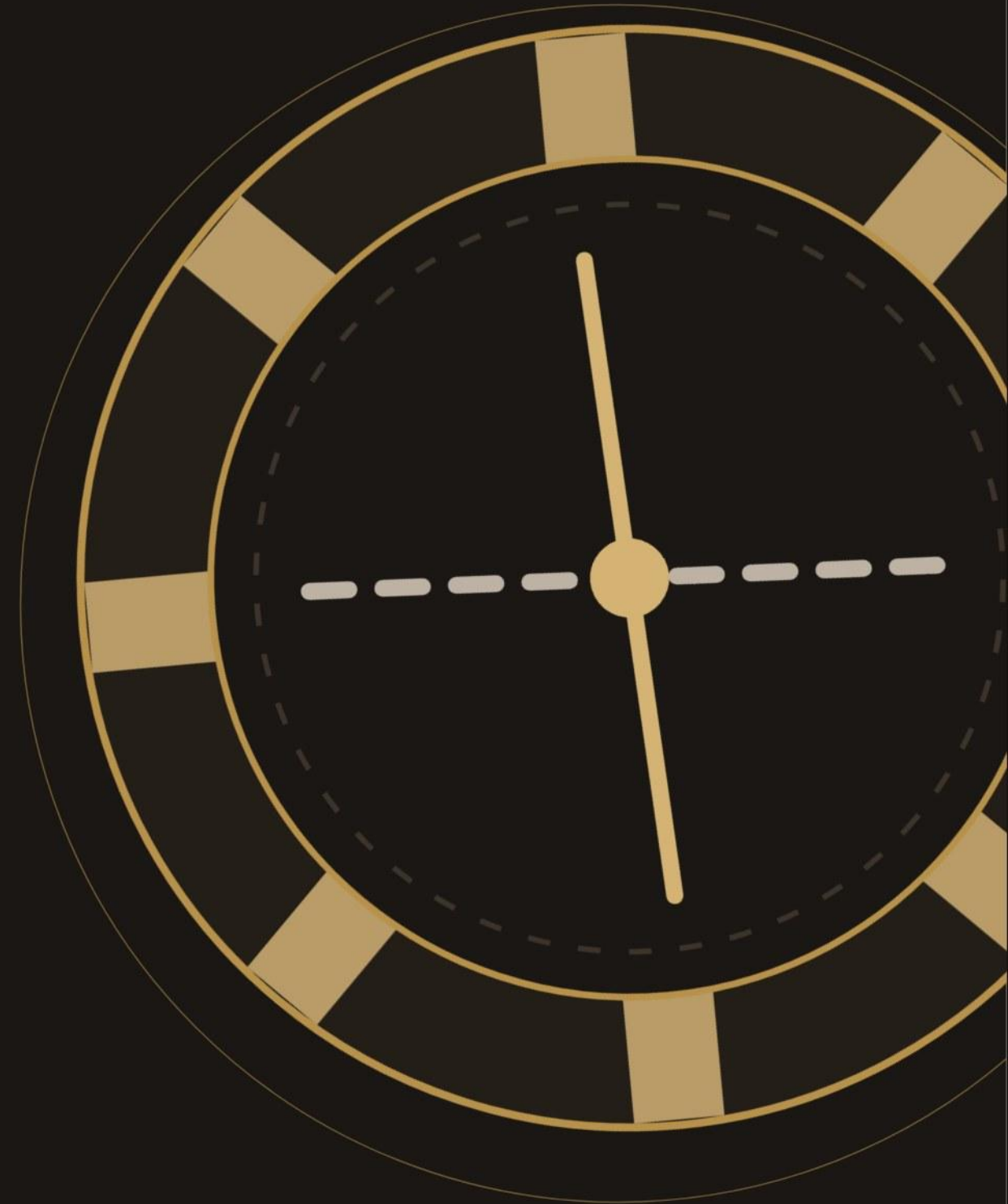
● Disclosure: Lovable Ambassador, educator cohort.

Source: Lovable documentation (docs.lovable.dev), checked October 2026.

ROUND 5

Let's *build*

- 34 From a conversation to an app
- 35 From theory to prompt
- 37 One topic, four levels
- 38 Price ceiling simulator
- 40 Demo: Shortage or Surplus?, built live
- 42 Built for my students



From a conversation *to an app*

01

Describe it

Tell a story: who plays, what they decide, what they should learn.

02

Plan it

Plan mode asks questions and proposes a plan before writing code.

03

Small loops

One change per prompt. Version history is your undo button.

04

Publish it

One click gives you a link and a QR code for your students.

Free plan: 5 credits a day, up to 30 a month. **Students and teachers:** 50% off Pro for up to 12 months, with a school email.

Under 18: parent or guardian permission required. For grades 6–12, imagi Edu offers free, anonymous classroom accounts.

From theory *to prompt*

Project knowledge travels with every prompt in the project. Write your design rules once, and every game follows them.

Zero start, feedback, retries → competence

Teams, not rankings → belonging

Two paths → autonomy

Mechanic = concept → no broccoli

Design rules for every game in this project:

- Points start at 0 and only go up.
- Teams compete; no individual ranking is shown.
- After every answer, give instant feedback: what was right or wrong, and why.
- Mistakes are cheap: allow a retry with a hint.
- Offer two paths (core and challenge) to the same learning goal.
- The game mechanic is the economic concept itself, never a decorative reward.
- Frame it as a short story: the student plays a role (producer, consumer, central banker).
- Never ask for names or personal data.
- All text in English.

 COPY RULES

Before, during *and after* class

<p>BEFORE</p> <p>Explainer</p> <p>Three interactive minutes and one prediction question.</p>	<p>OPEN</p> <p>Retrieve</p> <p>Shortage or Surplus? or a quick quiz.</p>	<p>CORE</p> <p>Decide</p> <p>A simulation or a live market: students decide, the model responds.</p>	<p>CLOSE</p> <p>Explain</p> <p>Debrief and an exit ticket.</p>	<p>AFTER</p> <p>Go deeper</p> <p>A tutor that asks why; calculators for their own decisions.</p>
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AND ASSESSMENT

Grade the decisions students make inside a scenario, and how they explain them, not recall that an AI can answer for them.

From review *to real decisions*

LEVEL 1

Review

Shortage or Surplus?: a market scenario on screen; teams call it against the clock.

SCREEN ONLY

LEVEL 2

Simulation

Move a price ceiling and watch the shortage and the deadweight loss appear.

SCREEN ONLY

LEVEL 3

Experiment

The whole class trades on their phones; the price converges on screen.

DATABASE

LEVEL 4

AI tutor

Asks why the shortage appeared, and never hands over the answer.

AI + DATABASE

Move the price ceiling *and watch what appears*

Predict first: with a \$20 price ceiling...

SHORTAGE

SURPLUS

NOTHING CHANGES

PRICE CEILING

\$30

QUANTITY
DEMANDED
60

QUANTITY SUPPLIED
60

SHORTAGE
0

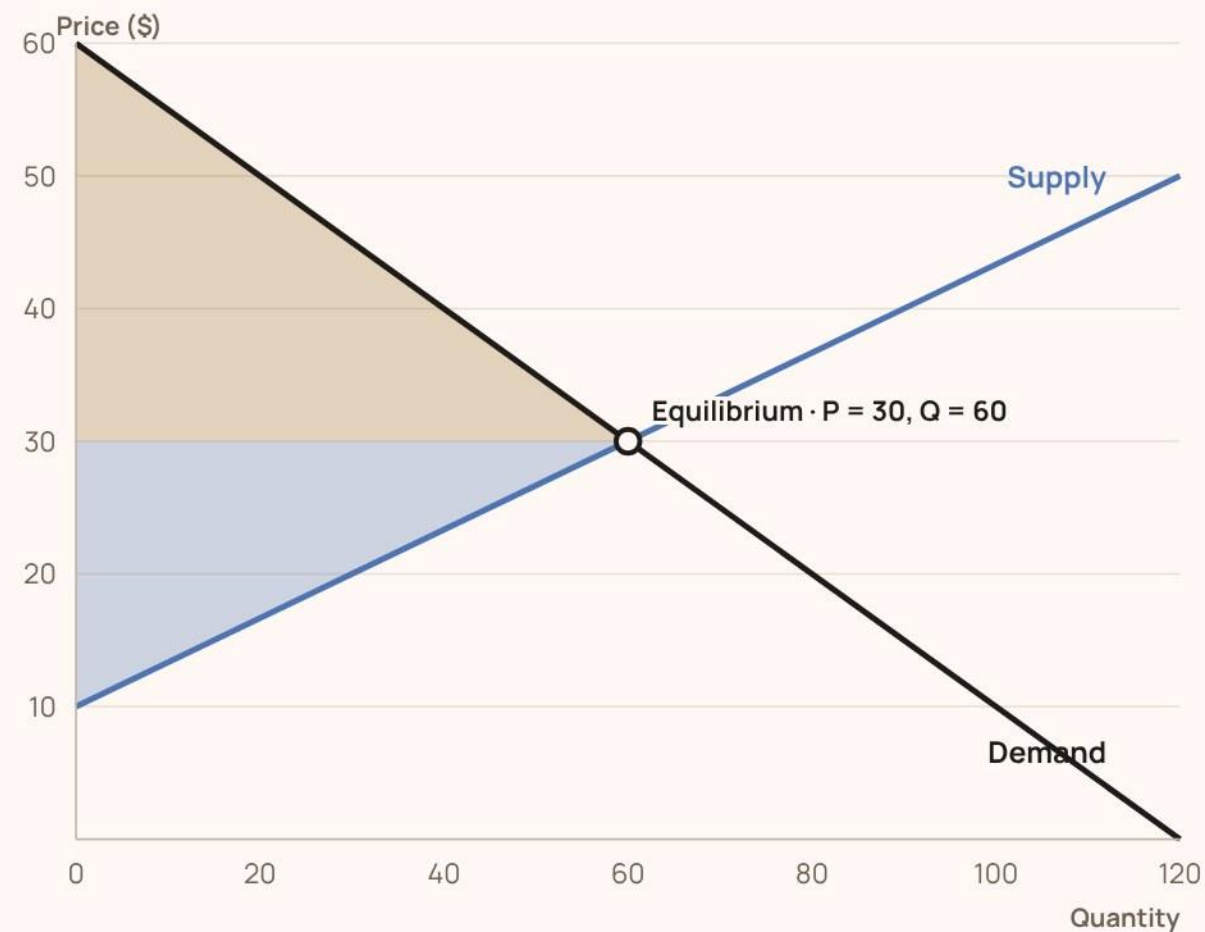
CONSUMER SURPLUS
900

PRODUCER SURPLUS
600

DEADWEIGHT LOSS
0

COLLEGE MODE

 COPY PROMPT



● Consumer surplus ● Producer surplus ● Deadweight loss

Example model built for this presentation: $Q_d = 120 - 2P$, $Q_s = 3P - 30$. Surpluses assume the buyers who value the good most get it. Computed in the browser with the same formulas as [build/numbers.py](#).

From idea *to classroom game*

0:00



Paste a story prompt

1:00



Watch it build

4:00



Make one small
change

6:00



Fix a bug in Plan mode

8:00



Publish and share the
QR

9:00



Play one round
together

WATCH FOR

The prompt is a story, not code

One change at a time

Errors are normal, and fixable

Shortage or Surplus?, *built live*

WHAT THE GAME DOES

- ✓ A market scenario on screen
- ✓ Teams of 4–5 take turns
- ✓ 45-second timer
- ✓ Shortage, Surplus or No change
- ✓ A one-line explanation after each call
- ✓ Missed scenarios saved for the debrief

I teach economics to high school and college students. Build a one-screen classroom game called Shortage or Surplus?, made to be projected.

I paste market scenarios, one per line, each with its answer: shortage, surplus or no change. Show one scenario at a time in large text, with a 45-second timer. Teams of 4 to 5 take turns; the team on turn picks Shortage, Surplus or No change. Then reveal the answer with a one-sentence explanation. Team points start at 0 and only go up. At the end, list the scenarios teams missed so we can review them.

High contrast, readable from the back of the room. All text in English. No login, no database, no personal data.

 COPY PROMPT

A gallery for *economics teachers*

MICRO

MACRO

FINANCE

AI INSIDE

- ▶ Tax incidence: who really pays the tax?
- ▶ Externalities and tradable permits
- ▶ Public goods: contributions to a common fund
- ▶ Tragedy of the commons: a shared fishery
- ▶ Monopoly and Cournot duopoly
- ▶ Prisoner's dilemma
- ▶ Auctions and the winner's curse
- ▶ The market for "lemons"

Built *for my students*

The Real Price Tag

Finance any purchase with a card and compare three ways to pay it off.

design-exacta-web.lovable.app

Tax Bracket Lab

Income splits into bracket slices: marginal vs. effective rate.

[LINK]

Budget Lab

A budget for right now, and one for when you start working.

[LINK]

Interest rates

The time value of money, for students who find the topic hard.

[LINK]

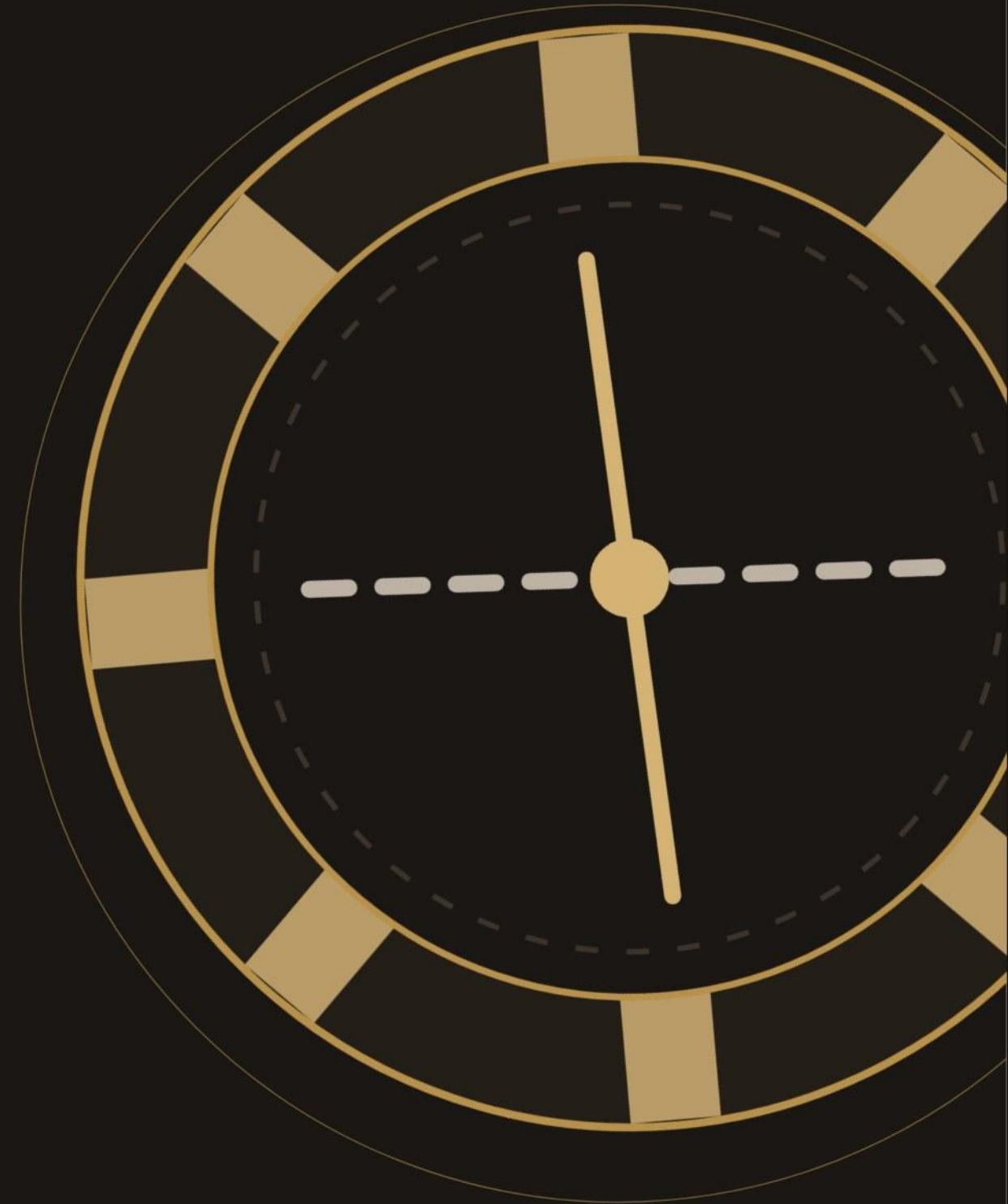


● Built by me in Lovable. Disclosure: Lovable Ambassador, educator cohort.

ROUND 6

Make it *count*

- 44 The learning happens in the debrief
- 45 Does it work, and for whom?
- 46 Before you share the link
- 47 Case: Ms. Ruiz
- 48 Your checklist



The game is not the lesson. *The learning happens in the debrief.*



Debrief a market game

- What did you predict, and what happened?
- Why did the price settle there?
- Who gained, who lost, and what was left on the table?

From my classroom

- Put the learning goals on screen before you play.
- Serious and playful: mistakes are funny, and fine.
- Around the world in 80 seconds: each student adds one fact until the concept is exhausted.

Does it work? *And for whom?*

01 Start with one class.

Not a department-wide rollout. Small, fast and honest.

02 Measure one thing.

Ask Lovable to add one anonymous question before and after the game.

03 Check who benefited.

Compare students by prior knowledge: flipped classes and classroom experiments have widened gaps before.

Before you *share the link*

Check the economics

A polished app can still compute the wrong equilibrium. Test every answer and every number.

Protect your students

A published app is a public link. No names, grades or photos. Run the security scan before you publish.

Watch the cost

Daily credits don't roll over. AI and the database inside your app are billed by use.

Use the simplest tool

A timer fits in a Claude artifact or in Gemini Canvas. For classic experiments, MobLab and Veconlab already exist.

What should *Ms. Ruiz* do?

A composite case, built from situations colleagues describe.

- 01 Economics, senior year of high school, 32 students.** Next unit: price controls.
- 02 Homework comes back done by a chatbot.** And half the class has checked out.
- 03 She has two weeks** and Lovable's free plan.

Vote with a show of hands; then I'll open each option.

A A video and a quiz for homework

B The price ceiling simulation, with a prediction and a debrief

C Ban AI and give a pop quiz

D A live market with team scoring

Your first game, *step by step*

YOUR FIRST GAME · ONE WEEK

0 of 8 done

- ☐ **Pick one concept** your students get wrong.
- ☐ **Load your design rules** into Project knowledge.
- ☐ **Check every number** and every “correct” answer.
- ☐ **Play it with one class:** predict, play, explain.
- ☐ **Write the first prompt as a story**, with your real content.
- ☐ **Build one screen;** then one change at a time.
- ☐ **Test it** on a phone and on the projector.
- ☐ **Measure one thing**, with no names.

START TODAY

Start building *with extra credits* on Lovable

Scan, sign up with this link, and try the prompts from the step-by-step guide.

lovable.dev/invite/R27A27R

- Disclosure: I'm a Lovable Ambassador and this is my referral link. New users who sign up with it get 10 extra credits.



CLOSING · THINK ABOUT IT

Don't ban the shortcut. *Design obstacles worth choosing.*

FOR THE ROOM

Back to the question from the start: what is your true purpose as an educator today? And what game will you build first?

Let's keep talking: Florencia@florenciagabriele.com



florenciagabriele.com
Workshops and resources



IA Today newsletter
Practical AI for teachers

LinkedIn [florencia-gabriele](#) Instagram [@florenciagabrielephd](#)

YouTube [Dr. Florencia Gabriele](#)

- Disclosure: Lovable Ambassador · lovable.dev/invite/R27A27R is my referral link.

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25. Lovable: version history docs.lovable.dev/features/projects/history · preview toolbar docs.lovable.dev/features/preview-toolbar
26. Lovable: publishing docs.lovable.dev/features/publish · Git docs.lovable.dev/integrations/git-sync-overview · AI docs.lovable.dev/features/ai
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