# Teaching with simulations

A classroom guide to the main collection, the Evidence Lab and Frontiers

> **Empirical identifies a task in which students interpret real data, primary records or findings from published empirical studies. Empirical extension signals optional real-evidence work.**

For each activity, you'll find a setup, an opening question for discussion, what to assess and the limits of its evidence. Start with the classroom time available and the kind of reasoning you want students to practice.

## A routine for teaching any activity

1. Set a clear endpoint and say what students should turn in. Read its full guide for preparation, saving and submission.

2. Have students commit a forecast and reason before revealing a result or opening a second record.

3. Debrief the difference between a forecast and the evidence. Ask what could change the conclusion.

Use the online teaching guide · Browse empirical simulations

| Course topic | Activities |
|---|---|
| Nationalism and citizenship | The Quiet Map, Reply Across, Manytide, Greenovia: The Belonging Test |
| Political economy | Why Here? The Prosperity Puzzle, Who Catches You?, Who Will Fight to Keep It? |
| State power and federalism | The Overloaded State, The Shared Country, Protection, Inc.: The Price of Power |
| Elections and institutions | A Door That Says Open, After the Count, The Power Circuit |
| Democracy and authoritarianism | Why Open the Rules?, The Hearing, The Order Was Given |
| Collective action and revolution | The Square, The Repression Trap, When the Center Breaks |
| Evidence and research methods | Everyone Says Democracy, Name the Problem, Hold the Headline, The Evidence Lab |
| Frontiers research simulations | The Democracy Alarm, The Civic Machine, The Persuasion Hearing, Major Decisions |

# Nationalism and citizenship

## The Quiet Map

**30–40 min for Class, plus debrief · Empirical**

**Set up.** Put up the producer's three words "quieter," "because" and "chose." Let students mark one before you define the relevant outcome for them. Reserve 10–15 minutes for the debrief after 30–40 minutes of independent Class play.

**Debrief.** Have two students read different defensible first sentences. Who or what does each sentence count? What would let a reporter say something about the people who moved?

**Assess.** Use the four-part 100-point rubric. Look for accurate source use, a real rival to the causal story and a bounded revision in Åland. Read the first and final filings together.

**Scope.** Teach ethnic nationalism and its consequences critically, without endorsing ethnic nationalism or forced displacement. Government dispute counts and household security are distinct outcomes.

Activity · Full teaching guide

## Reply Across

**60–80 min · Empirical**

**Set up.** Pause each case before the reply. Ask students to forecast which institutional change can answer the demand, then identify what the historical record confirms or leaves open.

**Debrief.** What did the parties request and what rule changed in each case? Which minorities inside the region might still face a problem?

**Assess.** Require a correct distinction between negotiated proposals, documented outcomes and a conditional explanation of how an arrangement could work.

**Scope.** The Canada and India case records are historical. Alternative choices illustrate counterfactual paths.

Activity · Full teaching guide

## Manytide

**50–70 min**

**Set up.** Start from the household's immediate service problem. Ask students to keep a list of who writes the rule, who supplies money and who has to travel or wait. Reuse it in the new case.

**Debrief.** Which change moved the bottleneck? Whose problem remains when the relevant regions negotiate a common rule?

**Assess.** Check the mechanism from divided authority to one concrete household consequence. Require an explanation of what the matched comparison holds constant.

**Scope.** The federation and archives are authored fiction. The design isolates a mechanism connecting political boundaries, belonging and usable services.

Activity · Full teaching guide

## Greenovia: The Belonging Test

**85–110 min**

**Set up.** Have students write the key charter rules before they inspect the household consequences. End with one rewrite and a prediction about which burden remains.

**Debrief.** Which right was promised on paper? Show one place where a language, residence, schooling or voting rule determined who could use it.

**Assess.** Look for an exact clause, a linked household outcome, a feasible revision and a tradeoff the revision leaves open.

**Scope.** The households and charter options are designed scenarios for linking nationhood, citizenship and institutional design.

Activity · Full teaching guide

# Political economy

## Why Here? The Prosperity Puzzle

**50–65 min · Empirical**

**Set up.** Ask students to predict which comparison will make their preferred explanation look weakest. Have them keep that case in the report and label country, year and unit next to every reported number.
**Debrief.** Which comparison is awkward for a single-factor explanation? What could tell us whether geography affected prosperity directly or through an institutional mechanism?
**Assess.** Look for a matched or deliberately contrasting case, one appropriately scoped result from a study, a rival mechanism and a remaining ambiguity.
**Scope.** Country comparisons are descriptive. Different published designs bear on different parts of the argument about prosperity.
Activity · Full teaching guide

## Who Catches You?

**50–70 min including reflection · Empirical**

**Set up.** Start with the same financial shock across the four modeled households. Pause before the country evidence and have students write a prediction from each explanation of redistribution.
**Debrief.** When does needing protection fail to produce access? When can many people prefer a policy and still lack the organization to win it?
**Assess.** Grade the mechanism from eligibility or organization to an outcome, one accurately dated country comparison and the implication of an alternative explanation.
**Scope.** Household outcomes are modeled. Real country figures are dated and separately rank income and net wealth.
Activity · Full teaching guide

## Who Will Fight to Keep It?

**50–60 min for Class · Empirical**

**Set up.** Assign the Comparative politics lens. Have students hold the contact list constant as they compare two relief plans, then hold the actual Millhaven signatures constant as they change the hearing rule.
**Debrief.** How can two petitions with the same number of signatures get different hearings? What published finding informs the first comparison you would make in two actual places?
**Assess.** Use the four Class responses. Check the trace from eligibility through contact to signing, the correct application of both hearing rules, and the proposed comparable measure.
**Scope.** The published studies inform students' research designs. Riverford and Millhaven supply designed comparisons of program rules and participation.
Activity · Full teaching guide

# State power and federalism

## The Overloaded State

**180–210 min · Empirical**

**Set up.** Plan separate work blocks for the reading, implementation chain and hearing. Require students to follow the same user or application through the record before recommending a reform.

**Debrief.** Which decision made the promise official? Where did the chain stall? What change would show the bottleneck moved while applicants kept a usable appeal?

**Assess.** Require a cited bottleneck, a complicating record, accurate use of one published finding and an outcome that can be measured after reform.

**Scope.** Published studies illuminate implementation and administrative constraints. The Riverbend records and follow-up comparison are designed for the inquiry.

Activity · Full teaching guide

## The Shared Country

**50–60 min**

**Set up.** Assign the shared river problem first. Before the final policies, have students mark what is constitutionally protected, what is delegated and what requires agreement over money.

**Debrief.** Who can block a decision, and who carries its cost? How does this answer change when a minority lives inside a region with protected powers?

**Assess.** Trace one earlier assignment of authority through flood, clinic or licensing implementation. Require a named tradeoff.

**Scope.** The core exercise is a fictional federation. Canada and India offer comparative constitutional references for follow-up.

Activity · Full teaching guide

## Protection, Inc.: The Price of Power

**45–55 min**

**Set up.** Let students bargain first, then replace the leader. Have them identify one thing that continued and one thing that depended on the first leader’s enforcement or resources.

**Debrief.** What makes protection predictable? If people keep paying, what evidence would tell us whether they consent or see few alternatives?

**Assess.** Require a specific enforcement or extraction mechanism, an outcome across leaders and one observation that could support a claim about legitimacy.

**Scope.** The bargains are invented. Payments and compliance inside the game can illustrate institutional continuity.

Activity · Full teaching guide

# Elections and institutions

## A Door That Says Open

**55 min · Empirical**

**Set up.** Record the first access judgment. Have students change one rule, then apply the contrast to a documented real case. The supplied Malawi 2019–2020 record is available.
**Debrief.** When does a formal right turn into usable access? Who controls timing or administration in the comparison case, and who still faces a barrier?
**Assess.** Check the named barrier, affected actor, causal sequence and specific similarity and difference in the sourced case.
**Scope.** The early voting, campaigning and accountability scenarios are fictional. Full Class work includes a real-case transfer.
Activity · Full teaching guide

## After the Count

**75 min · Empirical**

**Set up.** Ask every student to label the first result with its unit before comparing rules. Then hold the recorded votes fixed and trace how the rule converts them into seats, advancement or victory.
**Debrief.** What can two rules do with the same ballots? Which part of a prediction about voter or party strategy would need a different analysis?
**Assess.** Grade correct rule application, valid denominator, explicit fixed-vote assumption and one plausible behavioral response needing evidence.
**Scope.** The election results are historical. Alternative counting rules use those ballots for a controlled replay.
Activity · Full teaching guide

## The Power Circuit

**150–180 min · 3 sessions · Empirical**

**Set up.** Stop after the matched system runs, the nine country dossiers and the research synthesis. Have students mark the office, constitutional provision and consequence at each transition.
**Debrief.** Which government could survive the same loss on a bill? Which actor can remove it, under what provision, and how could you observe the rule’s effects in practice?
**Assess.** Require correct citation of an actual institutional rule, a counterfactual that changes one condition and a feasible test of the hypothesized consequence.
**Scope.** Constitutions document authorized procedures. The crises, votes and officeholder responses are hypothetical applications.
Activity · Full teaching guide

# Democracy and authoritarianism

## Why Open the Rules?

**Self-paced with 2–5 cases for Class · Empirical**

**Set up.** Assign at least two countries before students open Class. Ask them to lock one initial forecast per case before opening the historical record. Use the course's own deadline for the cross-case comparison and Orvessa transfer.

**Debrief.** Find two cases where the ruling side accepted an opening. What made a possible loss tolerable in one case, and what makes that mechanism uncertain in the other?

**Assess.** Require a named actor, dated decision, correct denominator and one supported revision. Ask what observed behavior would distinguish risk reduction from the rival account.

**Scope.** The opening choices are modeled. Historical outcomes and public reasons support bounded claims about the selected cases.

Activity · Full teaching guide

## The Hearing

**50–60 min · Empirical**

**Set up.** Begin with a sealed hypothesis and rival. Before students review a second case, have them place two dated records against the first case's explanation and identify the strongest complication.

**Debrief.** What distinguishes evidence of restricted competition from evidence of an opposition that simply disappointed voters?

**Assess.** Require two accurately described dated cards, one genuine complication and an observation that would favor the rival. Score the comparison and revision.

**Scope.** The case files use real events and source records. Each dated observation covers a specific place, decision or period.

Activity · Full teaching guide

## The Order Was Given

**50–60 min**

**Set up.** Ask students to forecast two organizations' responses before opening the replies. Compare the access-only replay with the original and list everything deliberately held fixed.

**Debrief.** Which parts of the order worked through public authority? Which outcomes still depended on an organization committing its own resources?

**Assess.** Look for an observable resource decision, a clear comparison and a bounded conclusion about access or campaign opportunities.

**Scope.** Lydora is a designed setting for studying opportunity under unequal competition. Its available choices and results are modeled.

Activity · Full teaching guide

# Collective action and revolution

## The Square

**45–55 min · Empirical extension**

**Set up.** Run the 20-person participation problem and compare one replay that changes a single condition. Assign the optional Right2Water panel when students should use observed initiative data.

**Debrief.** What stops a person who supports the cause from joining? Why can the same signature total qualify under one geographic rule and miss under another?

**Assess.** Check the direction of the changed condition, the evidence from the replay and the explanation of a change in response. For Right2Water, require both valid signatures and national thresholds.

**Scope.** The main rounds model participation. The extension uses actual European initiative counts with a counterfactual rule that holds signatures fixed.

Activity · Full teaching guide

## The Repression Trap

**45–65 min**

**Set up.** Before each reveal, ask students to forecast visibility, participation or consequential noncooperation. Save the first forecast and compare a changed-setting replay.

**Debrief.** When does attention rise while organizing becomes harder? What would count as an organization actually withdrawing cooperation?

**Assess.** Grade the evidence for a sequence connecting an action to an actor’s behavior. Ask for a route by which the same response can mobilize one group and silence another.

**Scope.** Lydora and its indicators are designed. The published-source notes ground discussion of civil resistance and the limits of generalization.

Activity · Full teaching guide

## When the Center Breaks

**120–150 min · Empirical**

**Set up.** Assign a cross-case pair and have students put their outcome threshold in writing early. Require a dated timeline and a turning point before allowing them to classify change.

**Debrief.** When did a leader leave? What changed in the distribution of authority, and which evidence would show whether social relations changed too?

**Assess.** Look for an accurate threshold, a named actor and mechanism, a complicating dated record and a defensible comparison.

**Scope.** The four cases use historical evidence. Outcome labels depend on definitions and the observation period.

Activity · Full teaching guide

# Evidence and research methods

## Everyone Says Democracy

**180–225 min · Empirical**

**Set up.** Plan several work blocks. Ask students to predict what agreement with the label means, compare the studies, then test exact practices and candidate choices in the designed case.

**Debrief.** What does the person call democratic? What do they choose when a practice has a cost? How would you distinguish wording from a change in political preference?

**Assess.** Require a concept, an indicator, a precise study result and a revised measure or question that addresses a named validity problem.

**Scope.** The research findings have country, timing and design limits. The game’s survey responses and party decisions are simulated.

Activity · Full teaching guide

## Name the Problem

**50 min · Empirical**

**Set up.** Choose congressional representation or global regime classification. Ask students to write the denominator before the headline, then publish a revised poster after the challenge.

**Debrief.** How do the answer and political frame change when we count people or seats, use a benchmark, or ask whether a trend is large enough to matter?

**Assess.** Grade numeric accuracy, data-to-claim warrant, clarity about the value threshold and performance on the new transfer graph.

**Scope.** The first inquiry uses Pew or V-Dem data. The new transfer charts are invented.

Activity · Full teaching guide

## Hold the Headline

**45–55 min**

**Set up.** Give the editor two record slots. Require a reason for each request before the reveal. Allow a bounded headline or a documented decision to hold.

**Debrief.** Which record speaks to implementation? What would be the cheapest discriminating record between two still-plausible bridge explanations?

**Assess.** Grade the information value of each request and the match between final wording and what the edited record establishes.

**Scope.** The bridge and records are designed practice. Use the newsroom choices to discuss evidentiary limits.

Activity · Full teaching guide

## The Evidence Lab

**45–60 min**

**Set up.** Work café and navigation examples independently, then compare two possible rival explanations. Have students save their own design and finish the unfamiliar challenge before inspecting optional hints.

**Debrief.** What explains the pooled pattern? What data or comparison would distinguish a proposed mechanism from selection into the busier group?

**Assess.** Read the five-part plan for a testable question, credible rival, discriminating evidence and predicted results. Use the final challenge as a separate check.

**Scope.** All case observations are fictional. The laboratory gives students controlled practice in evidence selection and comparison.

Activity · Full teaching guide

# Frontiers research simulations

## The Democracy Alarm

**150–190 min for Class · Empirical**

**Set up.** Block time for study comparison, indicators and the independent audit. Have students commit necessary conditions and comparison weights before opening the difficult case.
**Debrief.** What does a country-weighted summary answer? What protection can disappear in a population-weighted average even when the average looks informative?
**Assess.** Require the two real research arguments, an explicitly justified measure and a dated Bellara mechanism that survives a rival and a fresh dossier.
**Scope.** The published backsliding debate is real. The Bellara documents and exact tables are composed for the simulation.
Activity · Full teaching guide

## The Civic Machine

**120–160 min for Class · Empirical**

**Set up.** Before discussing the research, ask students what it would mean for AI to speak for a group. Compare the studies, make a design choice for the transit meeting, and test the safeguard in a second institution.
**Debrief.** Which measured outcome concerns endorsement, which concerns movement in opinion, and which information would show whose voice shaped the recommendation?
**Assess.** Grade accurate interpretation of one result, a workable participation safeguard and an observable threshold that would justify using it or changing it.
**Scope.** The AI results belong to particular research designs. The public consultation and local documents are fictional.
Activity · Full teaching guide

## The Persuasion Hearing

**140–180 min for Class · Empirical**

**Set up.** Have students extract a comparison and an outcome from the experiments before writing a licensing rule. Commit the evidence request before opening the local response.
**Debrief.** What do the studies measure about immediate persuasion? What observation would justify a claim about sustained belief, voting or public harm?
**Assess.** Require an accurate comparison group and outcome, a rival explanation, a proportionate rule and a credible follow-up test.
**Scope.** Published experiments supply measured effects in study settings. The municipal application is a designed case.
Activity · Full teaching guide

## Major Decisions

**40–55 min for Class · Empirical**

**Set up.** Open the two studies before the first firm claim. Ask students to draw a timing sequence for prior preferences, study choice, an educational experience and later political behavior.
**Debrief.** Which evidence could distinguish prior sorting into a major from effects of study or later work? How would attendance and field of study enter different comparisons?
**Assess.** Check how accurately the report matches each design to its actual claim, interprets a rival, and predicts a separating observation in the new case.
**Scope.** The research designs and outcomes come from published studies. The decision and institutional records in play are fictional.
Activity · Full teaching guide