



Instructor Guide: Reporting, Protection and Enforcement

Laboratory implementation, theoretical foundations,
experimental evidence, and variants

Behavioral and Experimental Economics Research Lab
Department of Economics



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<https://beer-lab.org/>

How to use this guide

This guide supports the preparation, implementation, and classroom discussion of the family of reporting, protection and enforcement games available through the Behavioral and Experimental Economics Research Lab (BEER Lab) at the Department of Economics of Tecnológico de Monterrey. It is intended for instructors with different levels of familiarity with experimental and behavioral economics.

The document offers three reading paths. The **quick guide** is enough to launch a session. The operational chapters explain each screen used by instructors and students. The conceptual chapters present the theories, predictions, and empirical findings needed to lead the post-game discussion.

Access instructions and common screens are explained once. Each variant then focuses only on what changes relative to the basic game: configuration, group size, decisions, predictions, relevant outcomes, and academic literature.

Author

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For the instructor

This guide follows the English-language interface. Spanish configurations use the same logic. Never project individual codes or connect outcomes to names, student identification numbers, or seats in the room.

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Preparation and classroom use

1.1 Access through the updated laboratory website

Start at <https://beer-lab.org/en/>. Select **CLASSROOM** in the top navigation menu; it opens <https://teaching.beer-lab.org/en/>. In the **Classroom experiments** catalog, use the search box to locate the activity by name. You can also filter by **Topic** or **JEL code**. Clear any filters left from an earlier search before looking for another game.

Each family's card distinguishes **Español** and **English** access links. The **Show extended version** checkbox selects that edition before following a link. Catalog language and session language are separate choices: verify both. Students use the room specified by the instructor; the instructor prepares and monitors the session through this family's own administrative pages.



Figure 1.1: Current institutional website. Select CLASSROOM in the top navigation menu to open the teaching experiments. Captured on October 7, 2026.

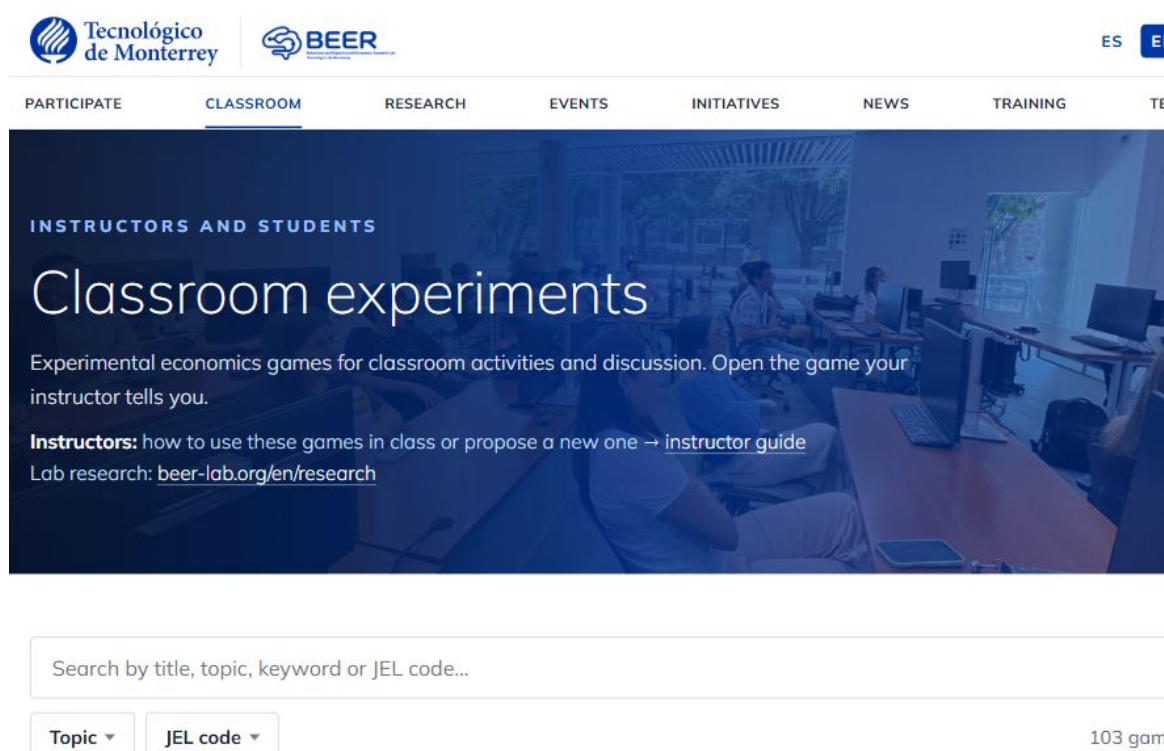


Figure 1.2: Current catalog: search by title, topic, or JEL code. Then locate this family's card and select language and edition. Captured on October 7, 2026.

Checking resources, comprehension, and participant requirements

Before opening the room, check the selected configuration and the number of students present. The session-creation form states the group size and minimum required by that configuration. An individual activity accepts any positive participant count; an interactive activity must satisfy its stated requirement: complete groups when size is fixed, or a minimum participant count when size is flexible. Requirements may change across treatments, for example when adding a third party or changing an institution's size. If you edit a grouping parameter, check the requirement for the edited configuration, rather than relying only on the demo's suggested count.

In the instructions, ensure that students can identify what each role receives, what they can decide, and how the outcome is calculated. An initial account, a distributable budget, and final earnings need not be the same amount. Refer to the resources panel and the example for the selected treatment. Do not carry the basic edition's endowment into a treatment that changes accounts or introduces additional positions.

ECU stands for *Experimental Currency Units*: the activity's unit of account. An outcome of 100 ECU does not automatically equal 100 pesos or 100 dollars. Conversion depends on the session configuration. Before announcing a payment, confirm with the laboratory whether money is paid, the conversion rate, and which decisions count for payment. In hypothetical modules, describe amounts as outcomes in the stated situation.

When a comprehension check is included, an incorrect response receives an explanation beside that question, identifying the submitted answer and the correct answer. Other answers remain in the form. Ask the student to return to the example, locate the relevant rule, and redo the calculation before correcting the response. Avoid revealing answers to the entire class for an individual error, and do not interpret a comprehension mistake as an economic choice in the game.

protección y fiscalización — una interacción	Denuncia, protección y fiscalización /
protección y fiscalización — 10 rondas, grupo fijo	
protección y fiscalización — 10 rondas, reasignación	
protección y fiscalización — una interacción	Denuncia, protección y fiscalización / Reporting, Protection and Enforcement — BEER Lab Seleccione una variante de este juego. Select a version of this game.
protección y fiscalización — 10 rondas, grupo fijo	
protección y fiscalización — 10 rondas, reasignación	
tendida — Denuncia sin premio	
tendida — Premio por resolución desfavorable	
tendida — Denuncia sin costo	
tendida — Posibilidad de represalias	
tendida — Protección frente a represalias	
tendida — Señales y revisión imperfectas	
Ftendida — Dos observadores sin premio	
tendida — Dos observadores y premio compartido	
tendida — Dos decisores sin clemencia	
tendida — Clemencia mediante autorreporte	
Protection and Enforcement — one interaction	
Protection and Enforcement — 10 rounds, fixed group	
Protection and Enforcement — 10 rounds, rematching	
Reporting — Reporting without rewards	
Reporting — Reward after an adverse finding	
Reporting — Costless reporting	
Reporting — Retaliation available	
Reporting — Protection against retaliation	
Reporting — Imperfect signals and review	
Reporting — Two observers without rewards	
Reporting — Two observers and a shared reward	
Reporting — Two acting participants without leniency	
Reporting — Leniency through self-reporting	

Figure 1.4: Demo contains only the configurations of this game family, in both languages and editions. Continuation 2/2.

Rooms

Current rooms:

[ES] Denuncia, protección y fiscalización
[EN] Reporting, Protection and Enforcement
[ES] Denuncia, protección y fiscalización — Extendido
[EN] Reporting, Protection and Enforcement — Extended

Figure 1.5: Rooms contains the four rooms for this family: basic and extended editions in Spanish and English.



Activity instructions

Resources and unit of account

Each person begins every round with 100 ECU.

ECU stands for Experimental Currency Units. It is the unit of account for this activity.

This session does not convert ECU into real money.

Your role: Acting participant · Round 1 / 1

You will play 1 round(s). The group stays fixed. Roles stay fixed; payments from all rounds are added together. Other participants' histories are not shown.

1. Each person begins every round with 100 ECU. The acting participant chooses A or B. A leaves initial accounts unchanged. B adds 30 ECU to the acting participant and subtracts 50 ECU from the recipient. The rule of this activity calls for A; B remains an available choice on the form. The recipient makes no decisions.
2. Each observer receives information about the choice and decides whether to submit a report. Reporting costs 5 ECU per person, even if B did not occur. One or more reports activate a single review. Without a report there is no review or deduction. An adverse finding deducts 60 ECU from the acting participant: 50 are transferred to the recipient.
3. The review allocates a pool of 0 ECU to those who reported if the finding is adverse. It is divided equally among reporters; the remaining deduction goes to an external account. A report without an adverse finding earns no reward.
4. The observation and review are exact: they identify A or B correctly.
5. Decisions and roles are displayed without personal names. There is no communication within the activity. Choices and group accounts are shown at the end of each round; the instructor decides when to display class aggregates.

Continue

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Figure 1.6: Current basic-edition instructions, with initial resources and experimental units.

Room: [EN] Reporting, Protection and Enforcement

Create a new session

Session Config

[EN] Reporting, Protection and Enforcement — one interaction

Number of participants

Use a multiple of 3 participants.

Create

[Configure session](#) 

App sequence

reporting_enforcement_game (10 rounds)

Reporting, protection and enforcement

Figure 1.7: Session-creation form for the basic English room. Check the selected configuration and participant requirement before creating the session.

Downloading a session with several rounds

For the instructor

Open **Data** within the relevant session and use that session's CSV or CSV-for-Excel download link. The general export has one row per participant and columns for the different rounds. Ten rounds do not necessarily mean ten rows per person. When the family provides its own long-format export, observations may instead be organized by participant and round or another unit defined by the design.

Save the original file together with the configuration name, session code, and active-round count. Check that columns for the last active round are present and that the data belong to the selected session. Empty cells can represent inactive rounds, a pending decision, or a field that does not apply to a role; do not automatically recode them as zeros. To compare learning, preserve round and group identifiers alongside participant identifiers. Share only anonymous aggregates in class, and record session incidents before constructing derived tables.

1.2 Purpose and game overview

A rule may be understood by everyone and still go unenforced because the information needed to activate it is held by someone who finds communication costly. This game examines that gap between a stated obligation and its enforcement. An acting participant can obtain a gain that harms a recipient. An observer learns about the choice and decides whether to submit a report. The authority is represented by an automatic review and accounting rule. This lets the class examine incentives to provide information without treating the instructor as a discretionary judge of who deserves punishment.

Students should learn to distinguish the incidence of misconduct, willingness to report, detection, and compensation. They should also be able to reconstruct payoffs, explain why a transfer differs from a resource loss, and identify institutional features that the model leaves out. The activity belongs to the economic analysis of law: rules change opportunities, information, and consequences. It does not describe a currently applicable legal procedure and should not be used to advise participants about personal disputes or actual reports of misconduct.

Purpose	Examine costly reporting, protection and rule enforcement, separating private incentives from compensation.
Experimental unit	A case is one group in one round.
Basic edition	One interaction, ten rounds with a fixed group, or ten rounds with reassignment.
Extended edition	Rewards, costless reporting, retaliation, protection, imperfect evidence, two observers, shared rewards, two acting participants and leniency.
Decision	Choose A or B; report when eligible; choose additional spending when available.
Payoff	An initial 100 ECU per round, adjusted for gains, harm, transfers, fines and costs. Active rounds are added together.
Topics	reporting misconduct; whistleblower protection; law enforcement; imperfect evidence; leniency; compensation for harm.
JEL	C92; D82; K42.
Participants	Three per group; four with two observers.
Suggested duration	30–45 minutes for the activity; 60–90 with discussion and advanced comparisons.

The extended edition offers ten treatment presets, including the no-reward control. The nine extensions are not an obligatory sequence. Each extended session keeps one institution throughout ten rounds and uses fixed groups. This arrangement permits observation of adjustment within a stable environment. For an introductory class, combine a short basic session with one carefully selected institutional comparison. Running every variant can leave too little time to understand what changed, how accounts were settled, and why the observed behavior matters.

1.3 Access through the laboratory

Begin at <https://beer-lab.org/>, continue to <https://teaching.beer-lab.org/>, and locate Reporting, Protection and Enforcement. The instructor entry is <https://reporting.beer-lab.org/demo>; the room directory is <https://reporting.beer-lab.org/rooms>. The English basic room is https://reporting.beer-lab.org/room/reporting_en, and the extended room is https://reporting.beer-lab.org/room/reporting_extended. Their Spanish counterparts end in `denuncia_es` and `denuncia_extendido`. These are the stable product routes; public availability depends on deployment by the laboratory.

Demo lists the 26 configurations belonging to this family. Rooms contains exactly four rooms: basic and extended in Spanish and English. A basic room offers three matching and horizon options, while an extended room offers ten treatments. The room name determines its available configurations. If another game family appears, stop preparation before distributing links and contact the laboratory coordinator. A directory full of unrelated games indicates that this instance has not been properly isolated; it is not a menu that students should navigate themselves.

A room link allocates access to the active session; an individual link belongs to one participant slot. The instructor panel requires authentication. The report is a private section of that session and is never distributed as a participation link. In a local demonstration the address uses the port assigned by the production team. An address containing localhost works only on the computer running the server. Do not write it on the board as though every student could reach that server from a different device.

1.4 Instructor preparation

Count participants and choose a multiple of three, or a multiple of four for the two-observer variants. The default demonstration contains two groups, with six or eight people. Do not create fictitious participants to fill a group during class. If attendance leaves extra students, arrange an instructor-led observation activity without access to private decisions, or prepare another exercise. An observing student should not advise an active decision maker. The grouping requirement also applies to self-reporting, which uses three people but assigns two acting roles and no observer role.

Review the selected instructions, comprehension questions and payoff examples in advance. Open Monitor and Report in separate tabs. Project only the report tab and keep aggregates hidden until the intended discussion stage. Progress monitoring can identify a stalled stage without announcing any individual choice. Prepare a short list of conceptual questions beforehand. The report becomes more useful when the class already understands which comparison it will examine, rather than discovering a long collection of numbers without a guiding question.

For the instructor

Before admitting students, verify language, treatment, participant count and matching. Explain that ECU are units of the activity and that academic evaluation concerns reasoning, not whether someone reports, chooses B or earns more. Do not introduce an unannounced monetary conversion or an additional obligation once the session has begun.

The experimental rule calls for A, but the software allows B. Explain that distinction neutrally: choosing B is an action contemplated by the game, not a breach of the laboratory's participation rules. Participation rules do require silence, privacy and compliance with the page sequence. Confusing these two types of rules may make behavior reflect fear of an academic penalty. It would then become difficult to interpret choices as responses to the incentives that the activity was designed to present.

1.5 A minimal classroom sequence

Allow about eight minutes to introduce the problem and obtain private predictions without group deliberation. Use another seven minutes for instructions and comprehension. One interaction and its initial discussion can occupy fifteen minutes; ten rounds need additional time, especially under reassignment. Reserve at least fifteen minutes to read the report and compare a payoff-based explanation with alternatives involving preferences, information or experience. These durations are planning estimates and should be adjusted after a pilot with the devices and class size you actually use.

Ask for precise predictions: the expected proportion of B choices, the share of observers who would report after B, and the recipient's expected balance. Do not ask only whether an institution is good or bad. At the end, compare the three predictions with three different indicators. An institution can reduce B and thereby reduce the total number of reports. It can also increase

reporting while leaving harm uncompensated when errors or exemptions occur. Keeping those possibilities separate should be part of the lesson from the beginning.

Checkpoint

Test every role before class. Check that the recipient waits without an artificial decision form, that observers see only their permitted information, and that the final page explicitly confirms completion. Keep rehearsal sessions distinguishable from the session used with students, so that illustrative choices do not enter classroom results.

Rules, screens and accounts

2.1 The basic interaction

Each round starts with 100 ECU for the acting participant, recipient and observer. The acting participant chooses A or B. A preserves the initial accounts. B adds 30 ECU to the acting participant and subtracts 50 from the recipient. The gain of 30 enters from outside the initial accounts, while the harm of 50 is destroyed. This is not a transfer of 50 from recipient to acting participant. The group's total falls by 20 when B occurs, before accounting for any reporting cost.

In the basic game, the observer learns the actual choice exactly. The observer may submit a report at a cost of 5 ECU or refrain. Reporting activates a perfectly accurate review. If B occurred, 60 ECU are deducted from the acting participant: 50 go to the recipient and 10 to an external account. If A occurred, reporting still costs 5 but generates neither a deduction nor a transfer. Without a report there is no automatic investigation. The recipient cannot report, veto, bargain or accept a settlement in this family.

Let a indicate a B choice and r indicate reporting, each taking values zero or one. The basic payoffs are

$$\begin{aligned}\pi_D &= 100 + 30a - 60ar, & \pi_R &= 100 - 50a + 50ar, \\ \pi_O &= 100 - 5r, & E &= 10ar.\end{aligned}$$

The subscripts refer to acting participant, recipient and observer, and E denotes the external account. These expressions describe realized consequences rather than preferences. A person may value another participant's recovery, compliance with the rule, or a reduction in inequality even though these concerns do not appear as an additional entry in their own monetary balance.

2.2 A fully worked example

Suppose the acting participant chooses B and the observer does not report. The acting participant adds 30 to the endowment and finishes with 130. The recipient loses 50 and finishes with 50. The observer retains 100. Participant payoffs sum to 280 and the external account is zero. There has been a breach of the experimental rule and harm, but no review. An instructor report showing zero sanctions would therefore not justify concluding that no misconduct occurred.

Now keep B unchanged and switch only the report to yes. The acting participant receives 30 but pays 60, ending with 70. The recipient loses 50 and receives 50 back, ending with 100. The observer pays 5 and ends with 95. Participant payoffs sum to 265, while the external account receives 10. Combining them gives 275: the original 300 plus 30, minus 50 of harm and 5 of reporting cost. Compensation redistributes resources; it does not undo the physical loss represented by the harm entry.

Finally consider A followed by a report. Final accounts are 100, 100 and 95, and the external account remains zero. This case is useful for checking comprehension. In the basic treatment the observer knows with certainty that A occurred, yet the form still permits a report. Such a choice could reflect an error or another unmeasured reason. The software records the event without automatically assigning a moral label. Under imperfect evidence, this interpretive caution becomes even more important because the observer no longer knows the actual choice with certainty.

Theoretical foundation

The basic accounting identity is $\pi_D + \pi_R + \pi_O + E = 300 - 20a - 5r$. Fines and compensation disappear when accounts are combined because they are transfers. Harm and reporting costs remain because they represent resource losses. Participant payoffs and the total including the external account answer different questions and should not be given the same welfare interpretation.

2.3 What participants see

The welcome page introduces the laboratory and its rules. Configuration-specific instructions follow. A role is assigned at the beginning and remains fixed throughout the session. Comprehension questions ask for the endowment, current reporting cost, and whether review can occur without a report. An incorrect answer returns a message asking the participant to review the instructions, without deducting ECU. The instructor may clarify a term but should not recommend a strategic decision or explain what a particular choice would signal about the student.



Welcome to the BEER Lab

The Behavioral and Experimental Economics Research Lab in the Department of Economics at Tecnológico de Monterrey is a space to learn about economic decisions through controlled activities. Decisions are expressed in ECU, the accounting units for this activity.

- Remain silent and do not communicate with others.
- Make your decisions individually and privately.
- Follow the instructions; do not refresh, close or leave the page.
- If a problem occurs, raise your hand or contact staff privately.

☐ I have read the general rules.

Start

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Figure 2.1: The welcome page separates participation rules from choices allowed within the game.



Review the marked questions. Each shows your answer and an explanation; your other answers are retained.

Check the rules

Resources and unit of account

ECU stands for Experimental Currency Units. It is the unit of account for this activity.

This session does not convert ECU into real money.

Your role: Acting participant · Round 1 / 1

How many ECU does each person receive at the start of the round?

Your answer: 101. The correct answer is 100. Review the instructions and correct your answers. Trying again does not deduct ECU.

How many ECU does submitting a report cost in this session?

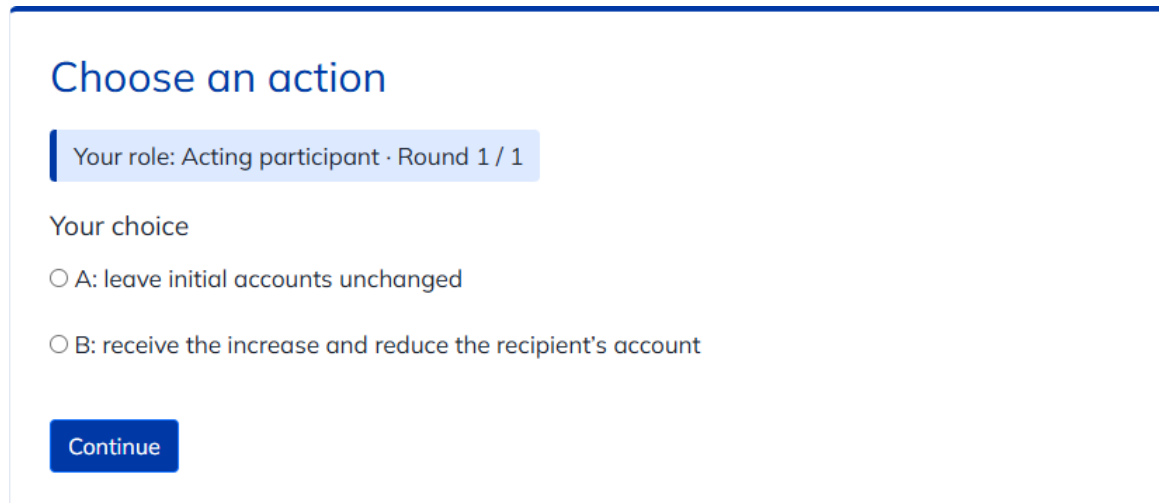
Without any report, is a review conducted? Enter 1 for yes or 0 for no.

Continue

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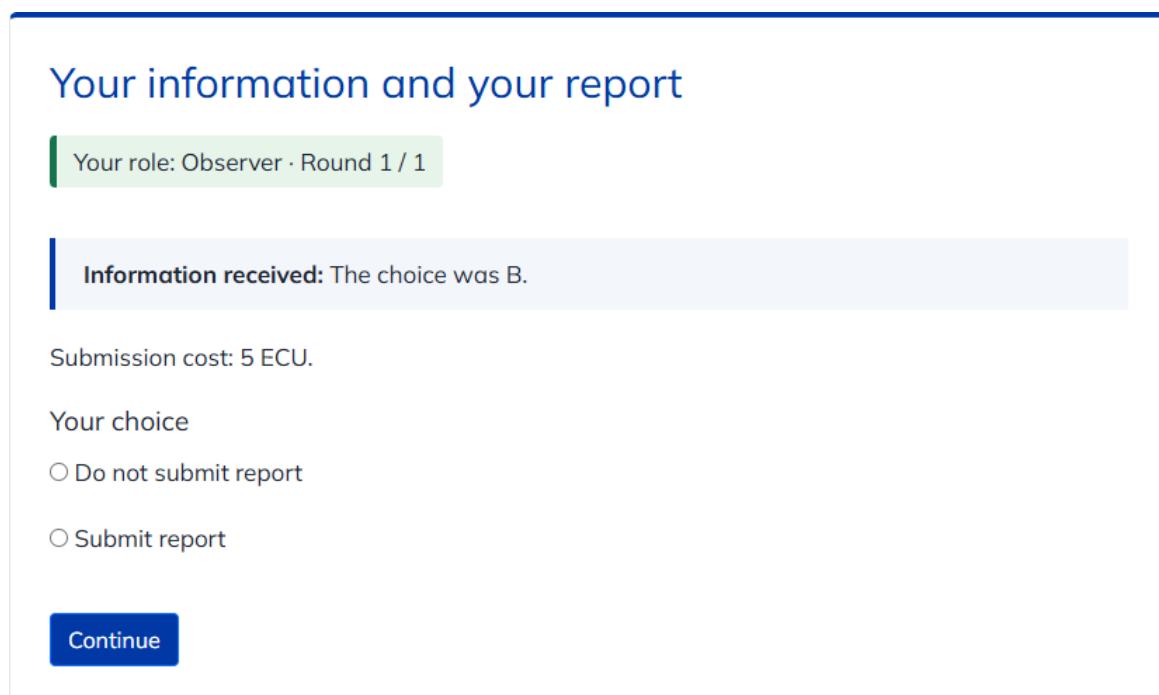
Figure 2.2: Current comprehension check with an incorrect answer, its specific explanation, and retained responses.

The round-start page reminds participants of their role and horizon. While the acting participant chooses, the others wait. Once the choice has been recorded, the observer receives information and decides whether to report. An observer does not see another observer's reporting choice before submitting their own. Information and random draws are saved on the server. Refreshing a page does not generate a new signal or a second review. Waiting ends when all required decisions are complete; silence and disconnection are not interpreted as a negative response.



The screenshot shows a web interface titled "Choose an action". Below the title is a blue header bar with the text "Your role: Acting participant · Round 1 / 1". Underneath, the text "Your choice" is followed by two radio button options: "A: leave initial accounts unchanged" and "B: receive the increase and reduce the recipient's account". At the bottom left is a blue "Continue" button.

Figure 2.3: The acting participant chooses between two known consequences. B remains an available action within the activity.



The screenshot shows a web interface titled "Your information and your report". Below the title is a green header bar with the text "Your role: Observer · Round 1 / 1". Underneath, a light blue box contains the text "Information received: The choice was B.". Below this, the text "Submission cost: 5 ECU." is displayed. Then, the text "Your choice" is followed by two radio button options: "Do not submit report" and "Submit report". At the bottom left is a blue "Continue" button.

Figure 2.4: The observer decides after receiving information and learning the cost of submitting a report.

Results display actual choices, report count, review activation and accounts. In the retaliation treatment, this disclosure occurs after the additional spending decision. At that decision the acting participant knows that a report occurred but receives no new finding on screen. Everyone learns what happened at the end of the round. Repeated sessions do not contain a public history page. Participants may nevertheless remember their own experience and the outcomes they observed within earlier groups; the absence of a history display does not erase that experience.

Round result

Your role: Acting participant · Round 1 / 1

Actual choices: **B** · Number of reports: 1

Review activated: Yes · Adverse findings: 1 · Exemption applied: None

Final balance: **70 ECU**

Formal deductions	60 ECU
Transfers to the recipient	50 ECU
Observer rewards	0 ECU
External account	10 ECU
Reporting costs	5 ECU
Acting participant's additional spending	0 ECU
Observer's additional loss	0 ECU
Sum of payoffs plus external account	275 ECU

Participant accounts

Acting participant	70 ECU
Recipient	100 ECU
Observer	95 ECU

Continue

Figure 2.5: The round account makes it possible to reconstruct harm, formal deductions, transfers and costs.

2.4 Payment and completion

All active rounds count and their payoffs are added together. A one-interaction session is not paid by dividing a ten-round total or selecting a random period. When comparing horizons, use means per case or round rather than accumulated totals. Roles can receive different balances despite identical reporting decisions because the institution assigns them different consequences. That difference is part of the design, not evidence of a calculation error or an administrative adjustment by the instructor.

The final screen asks participants to remain there and wait for the instructor. It does not provide a button to launch another activity. Do not delete the session to end class: deletion would invalidate links and remove the reference needed to inspect results. Create a new session for another practice. Keeping sessions separate helps distinguish rehearsal data from classroom data and makes it possible to document the effective parameters for every institutional comparison.

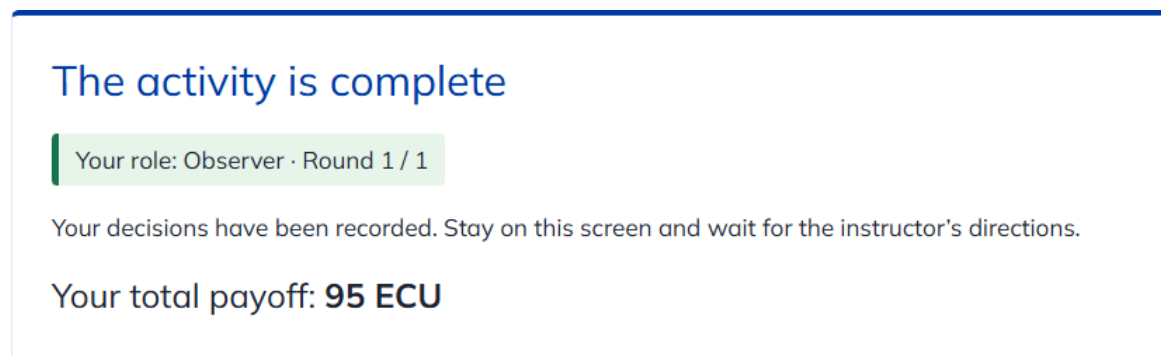


Figure 2.6: The final page confirms completion and shows the permitted total without directing participants to an empty page.

Incentives and benchmark predictions

3.1 Costly reporting and endogenous enforcement

The basic monetary benchmark can be derived by starting with the last decision. An observer who values only their own ECU compares 100 from not reporting with 95 from reporting. Compensation benefits the recipient rather than the observer. Under this assumption, the observer reports neither A nor B. Anticipating the absence of review, the acting participant compares 100 with 130 and chooses B. The outcome is an explicit rule that goes unenforced even though the review would be perfectly accurate if someone provided information.

This prediction assumes monetary self-interest, understanding of the rules and reasoning about another person's choice. It does not claim that every student will behave this way. Nor does a lack of reports directly measure moral indifference. Observed behavior can combine mistakes, beliefs about another person's understanding, concern for compensation and responses to past experience. Theory provides a reference that helps identify which assumption might be inadequate. It should not be used to sort students into rational and irrational personalities.

If the acting participant expects a report following B with probability q , the expected payoff from B is $130 - 60q$. A pays 100 when observers do not report A. Indifference occurs at $q = 0.5$. A higher probability makes A preferable under risk neutrality. The conditioning is crucial: q is the reporting probability after B, not the fraction of reports among all cases. Confusing those quantities can produce the wrong prediction about deterrence even when every arithmetic step in the calculation is correct.

3.2 Concern for compensation and compliance

A simple way to begin the behavioral discussion is to suppose that the observer values the recipient's recovery. If each ECU recovered receives weight α , reporting B has an advantage of $50\alpha - 5$ over not reporting. The threshold is $\alpha = 0.1$. This example does not estimate altruism in the class. It shows how concern for another person can change the choice. Inequality aversion, satisfaction from enforcing a rule, or disapproval of the acting participant's behavior could also matter.

Two observers can submit reports for different reasons and receive exactly the same payoff. Two people who remain silent may differ in beliefs about review, risk attitudes or comprehension. The game therefore records choices and consequences without assigning a psychological explanation to each one. Investigating motives would require an additional design with suitable measurements and comparisons. Asking students to publicly justify their decisions is not a substitute for that design and can compromise the privacy on which the activity relies.

Feedback script

Start with: who pays to provide information, and who receives compensation? Continue with: what would the observer have to value to accept that cost? End with: do these data distinguish concern for the recipient from concern for compliance? The final question prevents a compatible explanation from being presented as the only explanation demonstrated by the session.

3.3 A reward versus removing the cost

With a reward of 10, reporting a perfectly observed B gives the observer 105 rather than 100. Reporting A still gives 95. Monetary self-interest predicts reporting after B and no report after A. The acting participant anticipates 70 from B and 100 from A, so the equilibrium prediction is A. The reward changes predicted behavior even though the total fine stays the same: the 10 ECU previously assigned to the external account now go to the informant.

Removing the reporting cost has a different structure. With zero cost and zero reward, the observer receives 100 under either response. Monetary theory generates indifference, not an obligation to report or a unique reporting probability. The acting participant may be deterred if enough reporting is expected, but that expectation does not follow from a strict monetary benefit to the observer. Comparing rewards with costless access explains why simplifying a reporting channel and creating a positive incentive are not interchangeable interventions.

3.4 Retaliation and protection

When retaliation is available, the acting participant can spend z ECU after a report to subtract $3z$ from the observer. Maximum spending is 10. Someone who values only their own current payoff chooses zero because spending neither recovers the fine nor generates a later gain within the round. In one interaction, the monetary benchmark does not predict positive retaliation. A threat can matter if observers expect punitive preferences, mistakes, or strategies associated with repeated interaction.

For illustration, suppose the observer anticipates spending of 4. Reporting without a reward would then yield $100 - 5 - 12 = 83$, compared with 100 from remaining silent. Protection removes the additional loss and restores the reporting payoff to 95 while leaving the initial cost in place. Protection and reward therefore address different parts of the incentive problem. Protection does not guarantee reporting when a cost remains without a private benefit. Its appropriate comparison is retaliation available, rather than another institution that already prevents retaliation.

3.5 Imperfect information and mistakes

The imperfect-evidence treatment uses an 80%-accurate signal and an 80%-accurate review, independent conditional on the actual choice. If B occurred, each process identifies B with probability 0.8; if A occurred, each identifies A with the same probability. A B signal does not imply an 80% posterior probability of misconduct in every setting. Its interpretation depends on the observer's prior belief about how often B occurs before the signal is received.

With a prior probability of 25% for B, the probability of B after a B signal is

$$\frac{0.8(0.25)}{0.8(0.25) + 0.2(0.75)} = \frac{0.20}{0.35} \approx 0.571.$$

With a 50% prior, the same calculation gives 80%. Neither prior is imposed by the program; these are teaching examples. Actual choices are made by participants. Review may impose a deduction on A or fail to impose one on B. The report measures those mistakes against reviewed choices of the relevant type, rather than against all decisions in the session.

Attention

An unconfirmed report may result from a reasonably interpreted signal and an inaccurate review. Nonconfirmation does not identify a lie. An adverse finding also does not prove by itself that B occurred. Keep actual behavior, received information and review findings separate throughout the discussion, especially when moving from this model to legal concepts.

3.6 Horizons, matching and experience

One interaction makes backward reasoning easy to explain. Ten rounds with fixed groups allow prior experiences to change beliefs about counterparts. Reassignment keeps roles constant, changes group composition, and avoids the entire immediately preceding group when at least two groups exist. It does not guarantee that the same two people never meet again. With only one group, reassignment cannot create new counterparts. This limitation should be understood during preparation, rather than discovered when students compare their experience after class.

Repeating the control game for a known finite horizon does not by itself overturn the monetary no-reporting prediction. Backward reasoning can begin with the last round. Uncertainty about others' preferences or behavioral strategies may nevertheless generate other patterns. The round series helps describe them, but not every change is evidence of learning. Falling report counts may reflect fewer B opportunities, changing group composition or sampling variation. Examine the incidence of B and the relevant denominators before interpreting a time pattern.

Institutional extensions

4.1 Choosing a comparison

Each extension changes an identifiable mechanism. The extended control retains a reporting cost of 5 and no reward, making it possible to compare institutions while holding ten rounds and fixed groups constant. Prefer a comparison between this control and one extension planned before class. Comparing a single basic interaction with ten extended rounds combines institution and experience. If that combination serves a teaching purpose, describe it as an illustration rather than identification of the isolated effect of a legal rule.

When introducing a variant, first state what changes, then what remains fixed, and finally which outcome can examine the difference. The reward reallocates 10 ECU within the fine while preserving its size, compensation and reporting cost. Costless reporting changes the cost without adding a reward. Protection changes the availability of spending that reduces the observer's account while retaining costly reporting. This discipline prevents broad institutional labels from hiding several simultaneous changes in incentives or information.

4.2 Reward after an adverse finding

The reward pool is 10 ECU, funded from the 60-ECU fine. With one observer, B followed by a report yields payoffs of 70, 100 and 105, and a zero external account. Funding the reward does not reduce the recipient's compensation of 50. The expanded total remains 275. Comparing observer balances therefore measures redistribution as well as any behavioral response. Do not attribute every difference in observer payoffs to a greater willingness to report.

The experiment by Schmolke and Utikal motivates studying incentives to provide information, but the present payoff table is a teaching adaptation. Examine reporting conditional on B, the incidence of B and review frequency. A reward may deter misconduct so effectively that few opportunities to report remain. A low total number of reports would not then contradict deterrence. During discussion, reconstruct the observer's counterfactual: what would this person receive from sending or withholding the same report while holding the acting participant's choice unchanged?

The monetary benchmark is particularly transparent in this comparison. An observer who knows B occurred gains five from reporting relative to silence. The acting participant can anticipate that response. However, an observed deviation should prompt a review of comprehension and beliefs before a strong behavioral interpretation is offered. A participant might misunderstand the reward's financing or expect another rule to apply. The implemented instructions state both the amount and its source so that those possibilities can be discussed without adding a hidden institutional assumption.

4.3 Costless reporting

This variant sets reporting cost to zero and retains a zero reward. With B and a report, payoffs are 70, 100 and 100; without a report they are 130, 50 and 100. The comparison examines access frictions. A cost of 5 might represent time or resources used to communicate information, but the model does not separately identify paperwork, travel or employment risks. Changing a monetary parameter does not reproduce every consequence of simplifying a real reporting procedure.

Check whether reporting after B rises and whether more reports also follow A. Since the observer is monetarily indifferent in both cases, removing the cost may facilitate several behaviors. A high reporting rate after A means something different from a high reporting rate after B. The case helps explain why the administrative volume of complaints alone is insufficient to evaluate an information channel. An institution can improve access while simultaneously creating a need to classify the information it receives more carefully.

For classroom interpretation, distinguish an increase in opportunities used from an increase in reliable information. Under exact observation and review these are easy to separate using actual choices. In less controlled environments they may not be. Invite students to specify what additional records would be needed to assess a real access reform. This question develops institutional reasoning without asking them to infer the effects of a particular current law from a small exercise with deliberately simplified stakes.

4.4 Retaliation and effective protection

With retaliation, the acting participant may spend between zero and ten after any report. Each unit spent removes three from the observer. With B, a report and spending of four, balances are 66, 100 and 83, while the external account receives 10. The additional resource loss of 16 consists of four in spending and twelve in the observer's reduction. None of this goes to the recipient. The form states the range and multiplier, and the server rejects values outside the integer interval.

The protected treatment entirely blocks this choice without charging for protection. Its possible payoffs coincide with those of the basic control. Its teaching value lies in comparison with an explicit retaliation opportunity. No personal identity is disclosed, no action outside the game is simulated, and grades are never affected. Roles remain anonymous. Additional spending is only an action permitted within the experimental accounts and should be described to students in those terms rather than through dramatic personal scenarios.

Mechtenberg, Muehlheusser and Roider study protection in an environment with endogenous investigation. Here review is automatic, so the strategic response of an investigator in that article is absent. This matters: the adaptation isolates a retaliation channel but cannot reproduce every effect of whistleblower protection. Ask what would change if an authority could ignore a report and which additional decision would be required to study that possibility. The question directs attention to a missing mechanism without treating it as an implementation defect.

4.5 Imperfect signals and review

Both processes have default accuracy of 80%. Observers see a signal and know it can be wrong. A separate draw determines the potential review finding. Draws are stored and never change merely because a participant refreshes a page. Without reporting, the potential finding is not used to sanction anyone. With reporting, an adverse finding deducts 60 and transfers 50 even if the actual action was A. In that event the transfer is a payment to the recipient, not compensation for harm

Additional spending decision

Your role: Acting participant · Round 1 / 10

A report was submitted. Choose your spending, from 0 to 10 ECU. Each ECU spent reduces the observer's account by 3 ECU. Spending is lost and does not change the review.

Additional spending in ECU

Continue

Figure 4.1: The acting participant can choose additional spending after a report. Protection removes this screen and the associated reduction.

that actually occurred.

Compare this version with the exact-evidence control. It keeps the absence of rewards and the reporting cost of 5, so a purely self-interested observer still prefers not to report. The extension supports discussion of uncertain choices when people also care about third parties or compliance. It does not turn a statistical probability into a legal standard of proof. Participants do not assess the credibility of real people or documents: information quality is generated by an explicitly announced mechanism.

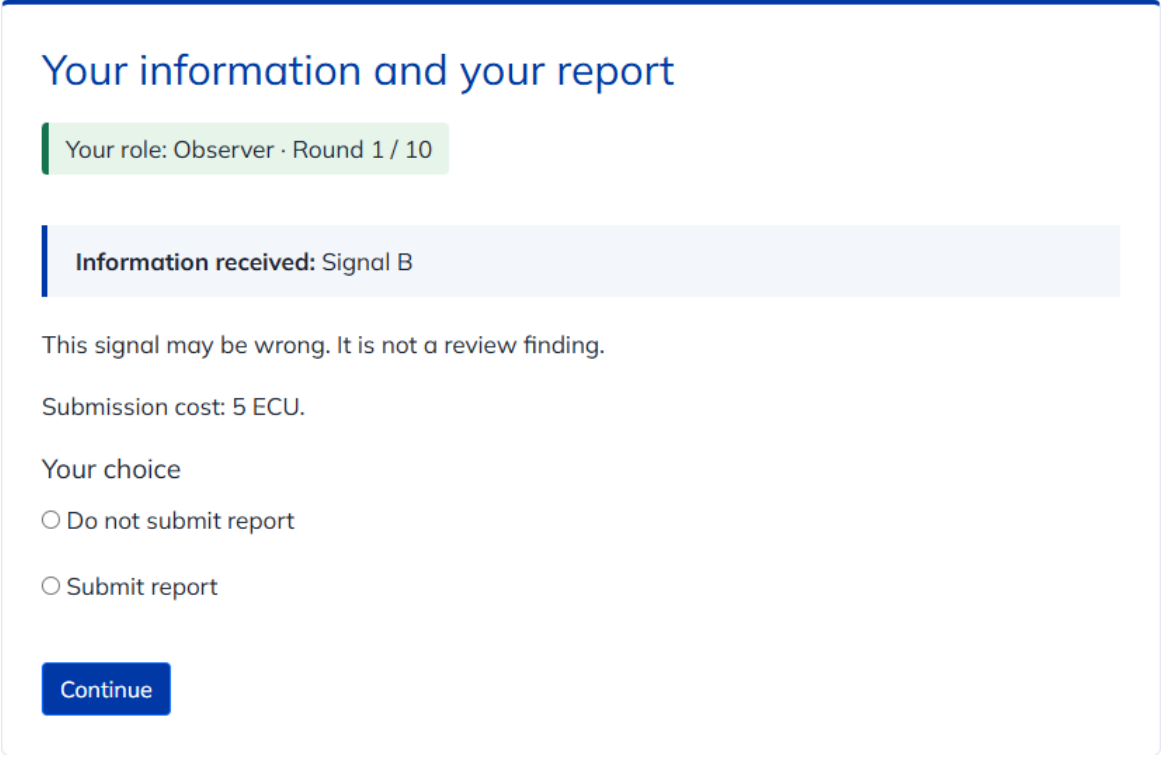
An apparent disagreement between signal and finding should be read in the order in which information became available. The observer chose before seeing the finding. The instructor can later compare that choice with the true action, but hindsight does not expand what the observer knew at the time. This distinction is central to fair interpretation of reporting behavior. It also gives students a concrete reason to separate a decision's informational justification from its eventual outcome.

4.6 Two observers and simultaneous reports

The two-observer variants use four participants. Both observers receive exact information about the same acting participant and decide without seeing the other's report. One report is sufficient for review. If both report, the system conducts one review, applies one fine and makes one recipient transfer. Each observer pays their own reporting cost. Without rewards, B and two reports yield 70 to the actor, 100 to the recipient and 95 to each observer. The external account receives 10 and the expanded total is 370.

The comparison with one observer changes both the number of informed people and group size. It is not a pure comparison of individual preferences. It asks whether responsibility diffuses or a second opportunity increases the chance that someone provides information. Under independent individual reporting with probability q , the probability of at least one report would be $1 - (1 - q)^2$. Independence is an illustrative assumption. Responses to the same action and shared expectations can make reporting choices correlated in the classroom.

In the shared-reward treatment, the total pool remains 10. A sole reporter receives 10 and finishes with 105. If both report, each receives 5 and finishes with 100. The pool is not doubled. Conditional



Your information and your report

Your role: Observer · Round 1 / 10

Information received: Signal B

This signal may be wrong. It is not a review finding.

Submission cost: 5 ECU.

Your choice

☐ Do not submit report

☐ Submit report

Continue

Figure 4.2: The screen identifies the observation as a fallible signal and distinguishes it from a later review finding.

on B, reporting has an advantage of $10(1 - q/2) - 5$ when the other observer reports with probability q . At these parameters the advantage is positive unless the other reports with certainty, when it is zero. This is not an exact implementation of a classic volunteer's dilemma with a common private benefit.

Examine the distribution of zero, one and two reports. Two reports may secure review but duplicate reporting costs. The clean institutional comparison is two observers without rewards against two observers with a shared pool. Simultaneously changing the observer count and reward confounds mechanisms. These derivations are properties of the teaching adaptation. The incentive literature provides the general motivation; no claim is made that this exact shared-pool treatment reproduces a published experiment or inherits a known empirical effect size.

4.7 Two acting participants and self-reporting

The self-reporting module replaces the observer with a second acting participant. Both choose A or B simultaneously and then learn both choices. Each B adds 30 to its chooser and subtracts 50 from the recipient. If both choose B, the recipient can have zero before transfers. Only someone who chose B may self-report. Each report costs 5 and activates exact review of both choices. In the no-leniency control, every B receives a deduction of 60, regardless of who initiated review.

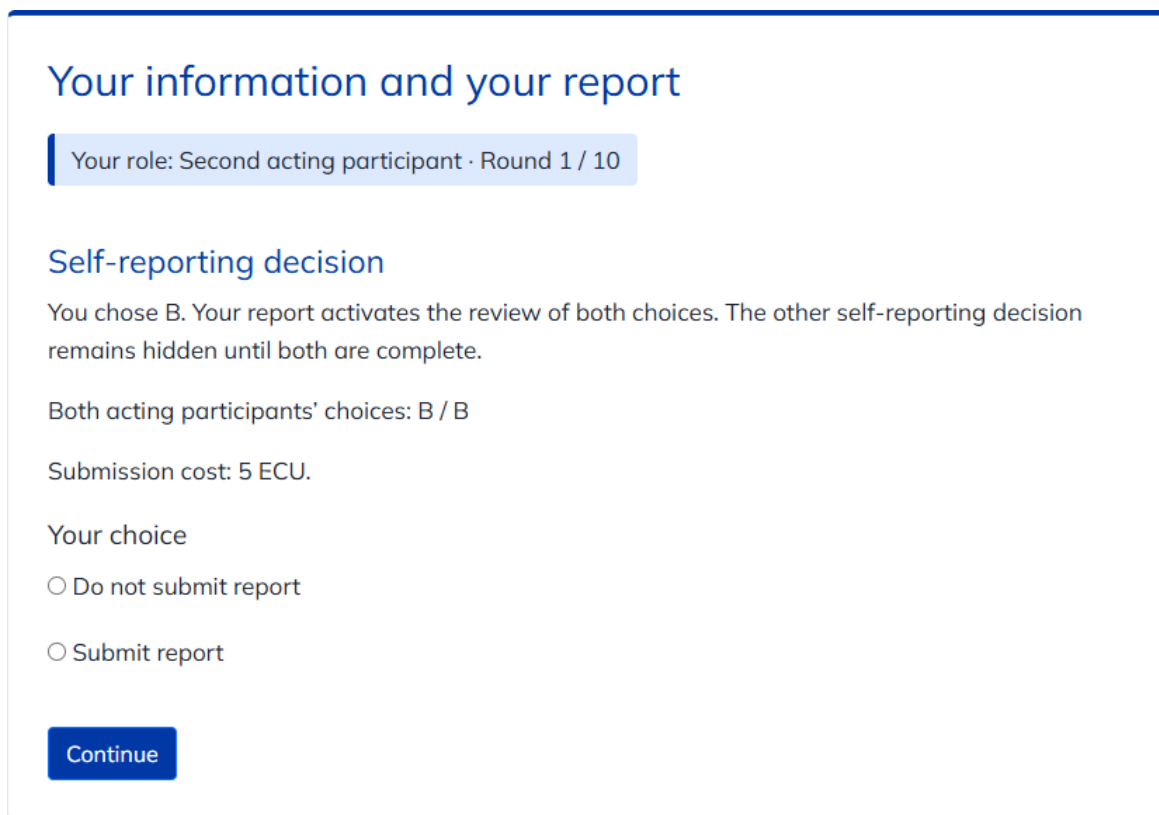
With two B choices and one report without leniency, the reporter receives 65, the other actor 70 and the recipient 100; the external account receives 20. Self-reporting has different private consequences from third-party reporting. Differences relative to the basic game are therefore not a pure leniency effect. Before discussing exemption, compare institutions with the same two actors, information and reporting costs. The third-party and self-reporting modules belong to one enforcement family but answer different strategic questions.

Someone who chose A is not asked to submit an artificial self-report. This preserves the meaning

of the decision and changes the denominator of reporting opportunities. The recipient still makes no decision. When both actors choose A, no one is eligible to report and the case proceeds to settlement with unchanged accounts. The instructor should explain this legitimate short path before class, so that skipping a report screen is not mistaken for a missing participant response.

4.8 Leniency and selection of an exemption

Leniency exempts one self-reporting actor from the fine. If only one reports, that person receives the exemption. If both report, an equal-probability draw selects one. Form submission speed never determines priority. This prevents connection speed or familiarity with a device from deciding who benefits. Reporting cost is not refunded. Since compensation is funded by collected fines, exemption also removes the recipient transfer that would have been financed by the exempt actor's deduction.



Your information and your report

Your role: Second acting participant · Round 1 / 10

Self-reporting decision

You chose B. Your report activates the review of both choices. The other self-reporting decision remains hidden until both are complete.

Both acting participants' choices: B / B

Submission cost: 5 ECU.

Your choice

☐ Do not submit report

☐ Submit report

Continue

Figure 4.3: Self-reporting belongs to the two-actor module. When both report, a draw selects the exempt actor.

With two B choices and a single report, payoffs are 125 for the exempt actor, 70 for the other actor and 50 for the recipient; the external account receives 10. With two reports, the exempt actor receives 125 and the nonexempt actor 65. Before the draw, each actor expects 95. The recipient's lost compensation should be examined directly rather than hidden within a group average. An exemption can help elicit information while changing who bears the cost of doing so.

After two B choices, the reporting subgame has multiple monetary equilibria. If the other actor remains silent, silence pays 130 and reporting 125. If the other reports, silence pays 70 and reporting an expected 95. Thus both remaining silent and both reporting are pure-strategy equilibria. Reporting has advantage $-5 + 30q$, giving indifference at $q = 1/6$. Initial choices and expected continuation behavior must be analyzed together; universal disclosure is not guaranteed.

Reading the instructor report

5.1 Progress and controlled disclosure

The report initially displays completed cases, pending cases and participant count. Aggregates remain hidden until the instructor selects Reveal aggregates. Hide aggregates removes the tables from the projection again. This is a presentation tool inside the private panel; individual choices should also remain unexposed in other tabs. Remember the distinction when sharing a screen or recording class. Monitor and individual links have administrative functions that do not make them appropriate classroom display material.

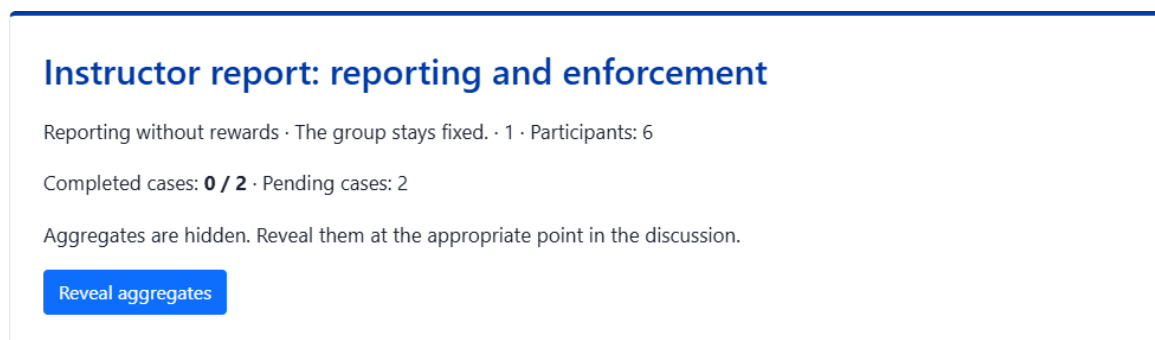


Figure 5.1: Before decisions are complete, the report displays progress without revealing aggregates.

A completed case is a group whose round accounting has finished. Two groups over ten rounds produce twenty expected cases. An unfinished case is not coded as zero and does not enter payoff or decision averages. This prevents a delay from being interpreted as nonreporting. However, restricting attention to completed cases can itself create selection if dropout is systematic. Before discussing partial aggregates, state how many cases remain and why results are being shown before completion.

5.2 Rates answer different questions

The B-choice rate divides actual B decisions by acting decisions in completed cases. With one actor this equals the share of cases with B. With two actors, a case can contribute zero, one or two B decisions, and the denominator doubles. The overall reporting rate divides reports by eligible opportunities. Under third-party reporting, each observer has an opportunity even following A. Under self-reporting, only actors who chose B are eligible. These rates should not be compared across modules without explaining the different populations.

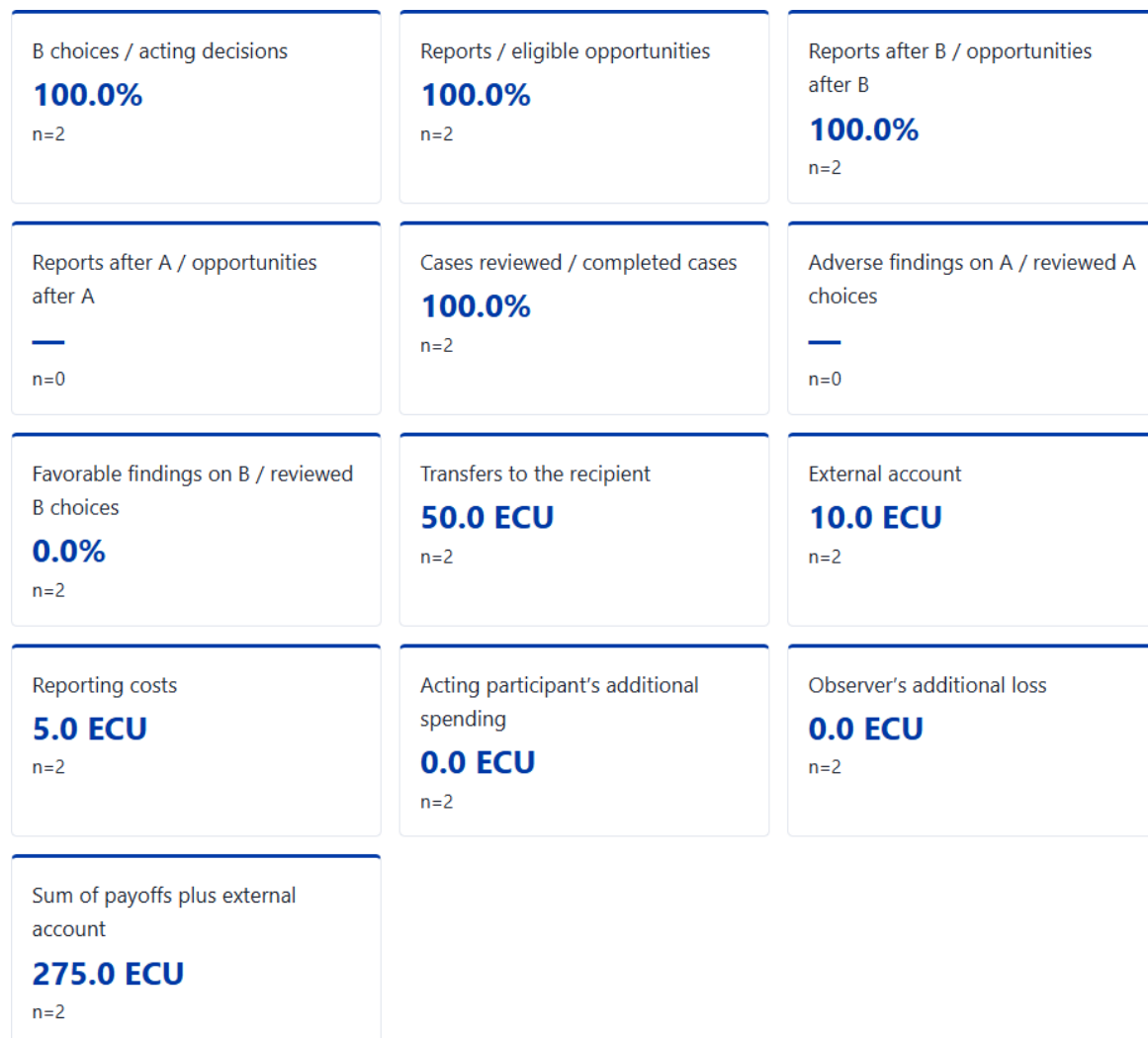


Figure 5.2: After disclosure, read each statistic with its denominator and distinguish percentages from means in ECU.

Reporting conditional on B uses opportunities associated with B. Reporting conditional on A uses those associated with A. In self-reporting, the latter denominator does not exist and the report shows a dash. A dash does not mean zero percent. The review rate counts groups with at least one report, so two reports within the same group do not count as two investigations. The distribution of report counts shows the duplication that is intentionally absent from the review rate.

Review errors are calculated among reviewed choices of the relevant type. A false positive is an adverse finding on A divided by reviewed A choices. A false negative is a favorable finding on B divided by reviewed B choices. Do not use every round as the denominator for accuracy, since many rounds had no review. The fraction of A choices among adverse findings is also not the false-positive rate. It is another conditional probability, affected by the frequency of A and B.

Number of reports	Cases	Percentage
0	0	0.0%
1	2	100.0%

Figure 5.3: The bars count cases with zero, one or two reports, according to the institution.

Your role	Mean	Median	Minimum–maximum	n
Acting participant	70.0 ECU	70.0	70–70	2
Recipient	100.0 ECU	100.0	100–100	2
Observer	95.0 ECU	95.0	95–95	2

Figure 5.4: Compare role payoffs while retaining the mean, median, range and number of observations.

5.3 Payoffs, distributions and round paths

Monetary means are calculated per completed case. The role table also provides medians and ranges. High average compensation can coexist with uncompensated recipients, so consult case-level data before saying that everyone recovered their loss. The external account records money transferred outside participant balances. It explains why the sum of individual payoffs can fall without an equally large destruction of resources in the expanded accounting. Give the measure its actual name rather than calling every total social welfare.

The round series presents B incidence and review frequency, using bars on a common scale. Start by checking the number of cases in each row. A round with one finished group contains less information than a round in which every group has completed. Ten rounds from one group are not ten independent groups either. A classroom discussion can describe a trajectory; statistical inference requires attention to dependence created by repeated people, fixed groups and reassignment.

For a cross-treatment discussion, place summaries from separately identified sessions side by side and preserve their matching and horizon labels. The live report summarizes its own session and does not pool unrelated classroom sessions automatically. This protects the instructor from an accidental comparison based on rehearsal data or a different participant population. When combining exports, decide which sessions belong in the comparison before computing results and record the reason for excluding any other session.

5.4 What the literature contributes

Schmolke and Utikal (2025) find that monetary incentives and commands can increase reporting in their experiment, and that the informant's position matters. The study motivates separating incentives from how misconduct affects the person providing information. Our observer receives no direct harm, and the application contains no penalty for remaining silent. Its reward and zero-cost comparisons use a transparent teaching payoff structure rather than reproducing the complete research protocol.

Mechtenberg, Muehlheusser and Roider (2020) find more reporting under protection but not the predicted improvements in detection and deterrence, partly because investigators respond differently. There is no strategic investigator here. Apestegui, Dufwenberg and Selten (2007) study leniency in competition and collusion; our module isolates self-reporting incentives and removes pricing decisions. Masclet, Montmarquette and Viennot-Briot (2019) study costly reporting in tax compliance. That work motivates distinguishing observation from the ability to inform, while this family does not reproduce their tax game.

Use these sources to compare mechanisms and adaptations. The present parameters, 80% information processes, shared reward pool and exemption lottery are explicit teaching choices. No known empirical effect is attributed to their exact combination. Classroom results can help formulate a question or verify an accounting identity. They do not replace evidence from a study whose assignment, sample and analysis were designed for that research question. An apparent classroom discrepancy can be interesting without qualifying as a failed replication.

Discussion, exercises and assessment

6.1 A sixty-minute session

During the first eight minutes, present an abstract problem: a person knows about harmful conduct, but communication is costly. Ask who benefits from information and who bears its cost. Avoid requesting personal experiences of reporting misconduct. Use the next seven minutes for accounts and comprehension, then allow fifteen for play and technical assistance. Keep the report closed during decisions so that behavior is not shaped by prematurely projected results from other groups.

Allocate ten minutes to description and twenty to explanation. First reconstruct one case, then identify three denominators, and finally compare an observed pattern with a prediction. If two treatments are used, plan the comparison before seeing outcomes. The same students may play both for illustration, but treatment order creates experience and expectations. Causal evaluation would need suitable assignment and control of prior exposure. Changing treatment in the middle of discussion does not supply that control.

What participants will see

A neutral introduction is: each screen explains the available options and their consequences in ECU. Decide privately and wait when it is another role's turn. Your grade does not depend on choosing A or B, reporting or remaining silent. We will later discuss rules and aggregate results without identifying individual choices.

6.2 An accounting exercise

Present B, a report and a reward of 10. Ask students to calculate the three payoffs, the external account and the expanded total. The answer is 70, 100 and 105, with external account zero and total 275. Then change only the reward to zero. Payoffs become 70, 100 and 95; the external account receives 10; the expanded total remains 275. Ask why distribution changed while total resources in that particular case did not. A complete answer identifies where the reward was funded.

Next introduce retaliation spending of four in the corresponding treatment, retaining zero reward. Balances become 66, 100 and 83, with external account 10, giving an expanded total of 259. Compare the loss of 16 with the fine of 60. The former comprises spending and additional reduction; the latter is redistributed. A student who subtracts the fine again from the total is counting its departure from one account twice while ignoring its arrival in other accounts.

An additional question can hold behavior fixed across institutions and then release that assumption. Under fixed behavior, funding a reward changes distribution but not the expanded total. Once

choices respond, the reward might prevent B and its harm, changing the total as well. Students should identify which part of their comparison is a mechanical accounting effect and which part requires a behavioral response. The exercise prevents a correct identity from being mistaken for a prediction that institutions never affect resources.

6.3 An exercise on denominators

Suppose there are twelve completed one-observer cases. Eight contain B, and five of those eight are reported. Four contain A, and one is reported. B incidence is $8/12$, total reporting is $6/12$, reporting conditional on B is $5/8$, and reporting conditional on A is $1/4$. Six investigations occur. Ask students to write every ratio in words before converting it to a percentage. This reveals interpretation errors that a calculator cannot detect.

Now imagine six two-observer cases, all with B. Report counts are zero, one, two, one, zero and two. There are six reports among twelve opportunities, but four reviewed cases among six. The individual reporting rate is 50%, and the review rate is about 66.7%. An answer claiming six reviews confuses messages with cases. At a cost of 5, total reporting expenditure is 30, including the duplicated messages that activate the same review rather than separate investigations.

Ask whether adding an observer necessarily raises the individual reporting rate. It need not: individual willingness could fall while the probability of at least one report rises. The two measures answer different institutional questions. An administrator concerned with detecting cases may focus on coverage, while someone concerned with administrative burden may also consider message duplication and total reporting cost. Neither perspective can be represented by a single undifferentiated count of complaints.

6.4 An exercise on protection

An observer values the recipient's recovery at 8 ECU and anticipates an additional loss of 12 if they report. Without protection, the valued advantage of reporting is $8 - 5 - 12 = -9$. With protection it is $8 - 5 = 3$. The example shows a channel through which protection changes behavior without adding a reward. Ask students to distinguish the assumed valuation of 8 from an actual payment made by the software. Confusing utility with account balance would undermine both the strategic explanation and the accounting identity.

Then suppose the observer values only their own ECU. Even with protection, reporting has an advantage of minus five, so silence remains preferable. Protection therefore need not create universal reporting. Ask for two legal reasons for protection that do not reduce to maximizing report volume, such as preventing disproportionate retaliation or securing access to review. Assessment should reward the distinction between a behavioral effect and a normative justification without requiring everyone to endorse the same institution.

6.5 An exercise on evidence

Consider one hundred hypothetical situations with twenty-five B choices and seventy-five A choices. An 80%-accurate signal produces, in expectation, twenty correct B signals and fifteen erroneous B signals. Among thirty-five B signals, twenty correspond to actual B: about 57.1%. Ask why the answer is not 80%. The explanation should mention the prior frequency and the larger number of A cases, rather than simply reproduce a formula with numbers inserted.

Suppose an observer reports every B signal. Review remains a separate process, and its finding can confirm or contradict the signal. An unconfirmed report does not establish an intention to deceive. Ask which variables would reveal what the person knew at the time of choice: the received signal, announced accuracy and reporting decision. The true action helps evaluate accuracy from outside the decision, but it is not necessarily information that the observer possessed when deciding.

For a further check, distinguish the accuracy of signals from the fraction of adverse findings that concern actual B. Changing the underlying incidence can change the second quantity without changing either accuracy parameter. This is an accessible way to introduce base-rate reasoning. It also clarifies why a policy evaluation should state which conditional probability it reports. Students should be able to formulate the conditioning event in ordinary language before referring to sensitivity, false positives or posterior beliefs.

6.6 An exercise on leniency

Following two B choices, calculate an actor's expected payoff when the other reports with probability q . Reporting gives $125 - 30q$; remaining silent gives $130 - 60q$. Equating them gives $q = 1/6$. Check the endpoints: at $q = 0$, silence is better by five; at $q = 1$, reporting is better by twenty-five. These endpoints explain the multiple equilibria of the reporting subgame. Analyze this stage before making claims about the original decision to choose A or B.

Ask who bears the exemption. The recipient recovers only 50 when both chose B and one actor is exempt, whereas review without exemption would recover 100. Lost compensation does not equal the exempt actor's entire monetary benefit because the fine also included an external component. An advanced discussion can propose a fund guaranteeing compensation, but it must identify financing and recalculate incentives. The delivered game has no such fund and does not attribute nonexistent resources to an authority.

Changing the tie rule is also a substantive intervention. A first-to-submit rule would add timing, connection speed and strategic urgency. The implemented equal-probability draw deliberately avoids those elements. Ask students what a timing experiment would need to control before interpreting faster reporting as a response to leniency. This question illustrates why an apparently minor procedural detail can change both the theoretical game and the practical fairness of a classroom activity.

6.7 Assessing learning

A one-hundred-point rubric can allocate twenty points to sequence and information, twenty-five to calculations, twenty to denominators, twenty-five to institutional reasoning and ten to limits of inference. Apply the same rubric regardless of actual choices during play. Ask for a brief explanation connecting one observed statistic to two possible mechanisms and proposing a comparison that could distinguish them. This assesses understanding of design instead of rewarding an ability to guess the instructor's preferred behavior.

Return to predictions written before play. Ask students to revise one claim using the data and retain another as a hypothesis not yet identified. For example, more reporting with a reward is consistent with incentive responsiveness, but a small difference between two groups does not establish a general effect. Positive retaliation is costly behavior for the person choosing it; it does not by itself prove hatred, revenge or a rational long-term strategy. Careful wording belongs to the economic and legal learning objectives.

Data, operation and troubleshooting

7.1 Export and reconstruction

The custom export contains one row per participant and active round. It includes session, round, group, position, role, treatment, matching, horizon, action, signal, report, eligibility, spending, findings, exempt position, balance, completion status, a ledger block and a parameter block. A decision that does not apply has a nonapplicable value or an eligibility indicator. Do not automatically recode these entries as observed abstentions. The recipient, for example, has no reporting decision in this design.

The group ledger is repeated across its participant rows to support auditing. Before calculating case totals, retain one copy per session, round and group. Summing compensation or fines over all rows would artificially multiply those amounts by group size. Individual balances, in contrast, should be summed across people when reconstructing total participant payoffs. Distinguishing person-level columns from group-level columns is the first step in analysis, not a technical detail to leave until after calculating summary statistics.

To verify a row, read the effective parameters, reconstruct gains and deductions, and compare the calculated balance with the export. Then check that collected fines equal recipient transfers, rewards and the external account. Finally, add payoffs and the external account and compare them with endowments, gains, harm and costs. This sequence localizes interpretation errors: individual account first, fine allocation next, and expanded conservation last. Do not begin with a regression before the accounting units are understood.

The exported parameters are useful even when all sessions use defaults. They document the rule actually implemented, preventing a later analyst from relying on a guide whose example was written for a different parameter choice. The stored ledger also separates intended review accuracy from realized findings. Neither a parameter nor a potential finding should be counted as a completed observation. Completion status and reporting activation determine which events actually generated a settled outcome.

7.2 Dependence, comparison and privacy

Under fixed matching, repeated rounds share people and experience. Under reassignment, individuals reappear with new counterparts and connect outcomes across groups. Treating every row as independent would exaggerate the information available. Descriptive summaries by treatment and round are suitable for classroom discussion. A research project requires assignment and analysis consistent with dependence, defined before results are observed and reviewed through the appropriate institutional procedures. The teaching activity itself does not establish a complete research protocol.

Technical session and group codes organize data and are not personal names. Nevertheless, combining a screenshot, an individual link and an attendance list could identify someone. Do not publish individual exports as classroom material. Share aggregates or clearly labeled synthetic examples. Discussion does not require asking who reported or chose B. Hide administrative tabs when projecting because privacy depends on use of the panel as well as the absence of names from participant screens.

When preparing an illustrative dataset, label it synthetic in its filename and accompanying description. Use it to practice reconstruction and denominator selection, not to suggest that a treatment generated an empirical effect. If a class produces an unexpected pattern, retain the distinction between a real observation and a fabricated example chosen to explain a formula. Both can be educational, but their evidentiary roles differ and should remain explicit in any slides or assessment material.

7.3 Waiting pages and links

A waiting screen means that a required group decision or advance is incomplete. Consult Monitor first, then assist privately. Do not announce that the observer at a particular table has failed to report. The page may be waiting for an initial choice, comprehension or progression from results. If someone closed the browser, the current individual link can return them to their slot. Do not give that link to another person without documenting the incident and assessing whether the session can continue coherently.

If a message says the user does not exist, the link usually belongs to an earlier session or database. Create a new session when appropriate and distribute current links. Do not restart or delete the database merely to refresh a page. Program changes require restarting the relevant technical instance while preserving compatible data. During class, coordinate maintenance with laboratory staff so that a routine update does not interrupt active sessions or invalidate links that students are currently using.

7.4 Apparently surprising results

If the recipient finishes above 100 under imperfect evidence, check whether A received an adverse finding and a transfer. That is a possible consequence, not compensation for nonexistent harm. If the recipient recovers only part of the loss under leniency, inspect which fine was exempted. If two reports receive a total reward of only 10, recall that the pool is shared. If the observer loses more than five under retaliation, separate the reporting cost from the subsequent reduction.

When the report shows a dash, inspect its denominator: there may be no B choices, no reviewed A choices, or no eligible self-reporters. If zero cases are displayed while people are navigating, accounting may not yet be complete. If a long session's total far exceeds the one-interaction total, compare per-round averages before drawing a conclusion. These checks often resolve apparent anomalies without changing parameters or manufacturing values for unfinished observations.

Checkpoint

At the end, check completed and pending cases, preserve the session, export its effective parameters, and record interruptions. Confirm that shared presentation material contains descriptive names, aggregates and relevant figures. Production identifiers are not part of participant instructions or classroom guides, including captions and screenshots.

7.5 Parameters and adaptation limits

Endowment, gain, harm, fine, compensation, reporting cost, reward and accuracy can be configured before session creation. The application validates nonnegative integers, percentages between zero and one hundred, and sufficient fine revenue to fund compensation and rewards. It also requires an endowment compatible with every possible deduction. These checks prevent impossible accounts but do not guarantee that every allowed combination produces an informative teaching comparison. Changing one parameter can alter equilibria, remove an incentive or invalidate the numerical example used in class.

Keep standard values for an initial implementation. When preparing an adaptation, recalculate examples, explain what changed and preserve it as a separate configuration. The present version contains no strategic prosecutor, nonmonetary sentence, open-ended document assessment or legal advice. It does not make the recipient choose merely to equalize activity across roles. These boundaries define the mechanism and help students discuss which additional conditions would be necessary before transferring a conclusion to a different institution.

An adaptation should also preserve the distinction between participant information and instructor knowledge. The instructor may see the actual state after settlement, while an observer may have seen only a noisy signal. Adding a public state display before the report would change the information treatment. Changing matching after students have begun would change their expectations about future encounters. Such modifications belong in a new, documented design rather than an improvised adjustment intended to make classroom results look more familiar.

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