



Instructor's Guide to Self-Control (BSCS)

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 accompanies the thirteen-statement Brief Self-Control Scale in the BEER Lab teaching platform. It is intended for economics and social science instructors teaching self-report measurement and its relationship with timing, commitment and environment choices.

The operational route covers access, instructions, missing data, reporting and downloads. The conceptual route develops scoring, interpretation limits, benchmark predictions and the distinction between description and causality. Twenty-two worked cases provide calculations and solutions for classroom use.

One application offers basic and extended editions in Spanish and English. Both preserve the complete BSCS in an identified source order. Extended editions add four original hypothetical scenarios and controlled private feedback; those decisions never contribute to the scale or generate payments.

Author

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For the instructor

Rehearse with synthetic data, check version and language, and close the access-code panel before projection. The sum is a descriptive summary, not a personal classification. Keep scenarios separate from scoring.

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The activity and its administration

Purpose	Explore self-reported self-control and its descriptive relationship with economic choices.
Experimental unit	Person; individual activity without matching or waiting.
Basic edition	Complete thirteen-statement BSCS in Spanish and English.
Extended edition	The same BSCS followed by four hypothetical timing, commitment and distraction scenarios; controlled private feedback.
Decision	One answer per statement and, in extended editions, one option per scenario; explicit omission available.
Outcome	Sum from 13 to 65 and item average; additional choices remain separate, without payments.
Topics	self-control; self-reports; intertemporal choice; commitment devices; distraction management
JEL	A22, C83, C91, D91
Participants	Any positive count; one person per interface.
Suggested duration	Basic: 3-5 minutes; extended: 5-8; class: 50-75. Planning estimates, no automatic time limit.

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

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

https://selfcontrol.beer-lab.org/room/selfcontrol_en

<http://localhost:9169/demo>

1.1 What is administered and what students can learn

The Brief Self-Control Scale, or BSCS, is a thirteen-statement self-report about habitual behavior. This family teaches how responses become a constructed measure and how that measure can be related to economic choices. Its principal outcome is a sum, rather than a direct observation of someone's ability to regulate every impulse. Keep three objects separate throughout the class: the participant's description, the score produced by the scoring rule, and a possible explanation for a particular decision. Connecting these objects requires assumptions. Correct software can implement a rule without resolving every question about its interpretation.

The basic edition administers only the thirteen statements. The extended edition retains the same questionnaire and subsequently introduces four hypothetical scenarios: two timing choices, a

preference over milestone arrangements, and a decision about recreational apps. None contributes to the BSCS sum. There are no partners, synchronization requirements, demographic questions or real payments. The extension creates an opportunity to ask whether a general self-description and a particular stated choice coincide or differ. It does not classify students as responsible or irresponsible, establish a stable economic preference, or reveal which decision they ought to make in their own circumstances.

1.2 Institutional navigation and room selection

Begin at the BEER Lab website and select Classroom to reach the games catalog. The self-control card identifies the family, its topics and its editions. Proposed rooms are `selfcontrol_es` for basic Spanish, `selfcontrol_en` for basic English, `selfcontrol_extendido` for extended Spanish and `selfcontrol_extended` for extended English. Within this family's instance, Demo should contain four configurations and Rooms four rooms. Each room offers one configuration in the corresponding language and edition. If another family appears or a selector is empty, stop distributing links and request an instance check before starting the cohort.

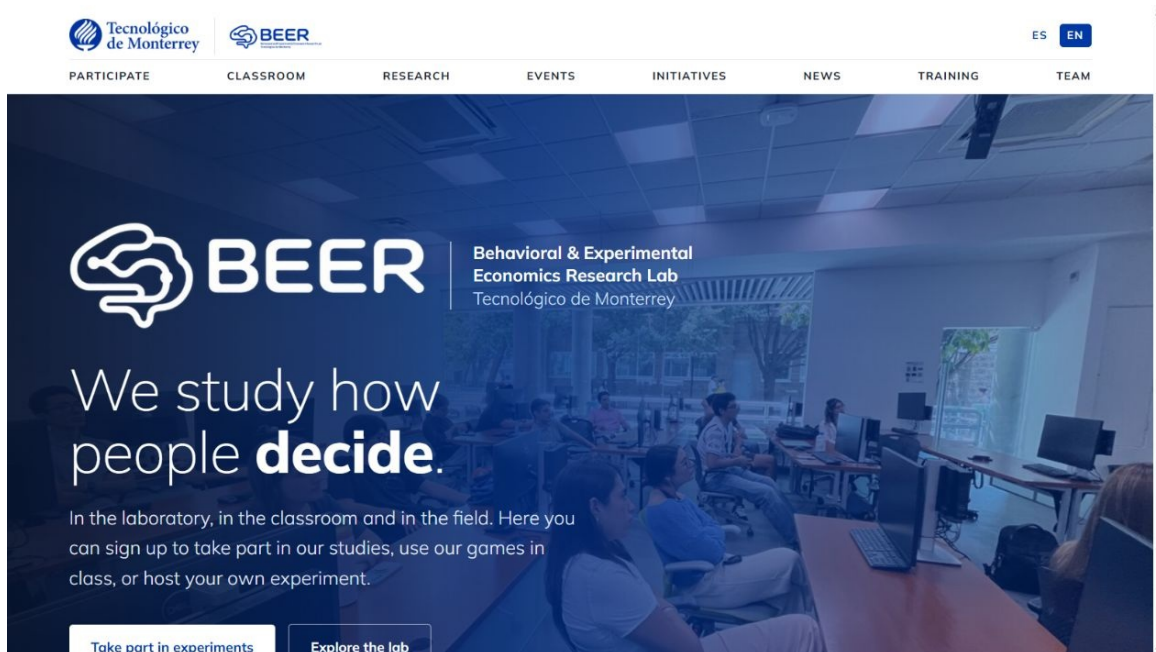


Figure 1.1: Select Classroom to reach the teaching activity catalog.

The verified delivery preview runs on localhost, port 9169, and can be accessed from the same computer. It is not an address for students using other devices. Addresses under `selfcontrol.beer-lab.org` are the intended deployment routes. A room is a shared entry point, an individual link refers to a position in a session, and a report is an authenticated instructor page. Confusing these addresses can send students to administration or cause two people to use the same position. Distribute the entry route appropriate to the teaching procedure and retain administrative links for staff.

1.3 Creating a session and managing its access

Sign into the instructor panel using the institutional credentials supplied by the laboratory. Do not share those credentials with students. Demo supports rehearsals with synthetic responses; use

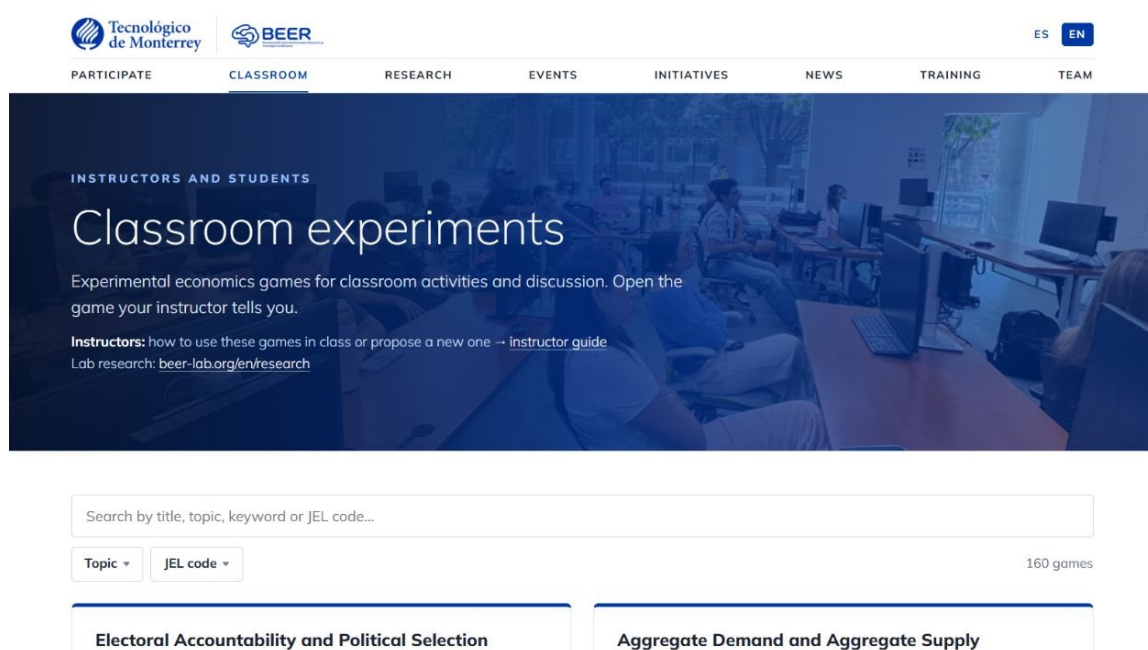


Figure 1.2: Review the catalog; the new card appears after deployment.

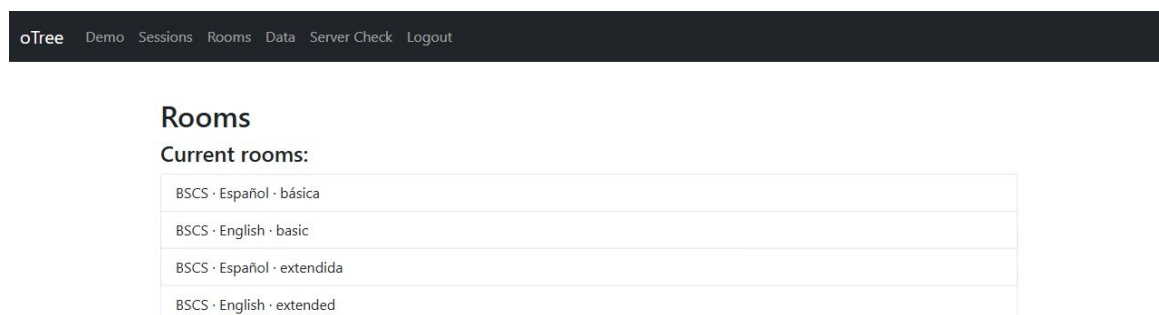


Figure 1.3: Select language and edition among this family's four rooms.

oTree Demo Sessions Rooms Data Server Check Logout

Room: BSCS · English · basic
Create a new session

Session Config

BSCS · 13 statements · basic ▾

Number of participants

Individual decisions: any positive participant count is allowed.

Create

[Configure session](#) ⚙

App sequence

selfcontrol_assessment (17 rounds) BSCS-13 in published bilingual table order; original linked scenarios in extended editions.

0 participants present

Start links

These URLs will stay constant for new sessions, even if the database is recreated.

Room-wide URL

Here is the room-wide URL anyone can use. Don't use this link when testing in multiple tabs on the same browser, because all tabs will be assigned to the same participant, using a cookie.

http://localhost:9169/room/selfcontrol_en

Figure 1.4: Check that the basic English room selects only its configuration.

a separate session and stable rooms for the class. Any positive participant count is admissible because the task is individual. Three people can complete it without waiting for a fourth. Confirm the session size, selected configuration and cohort before distributing individual links. Keep rehearsal sessions separate from classroom data, and avoid interpreting an old demonstration as if it described the current group.

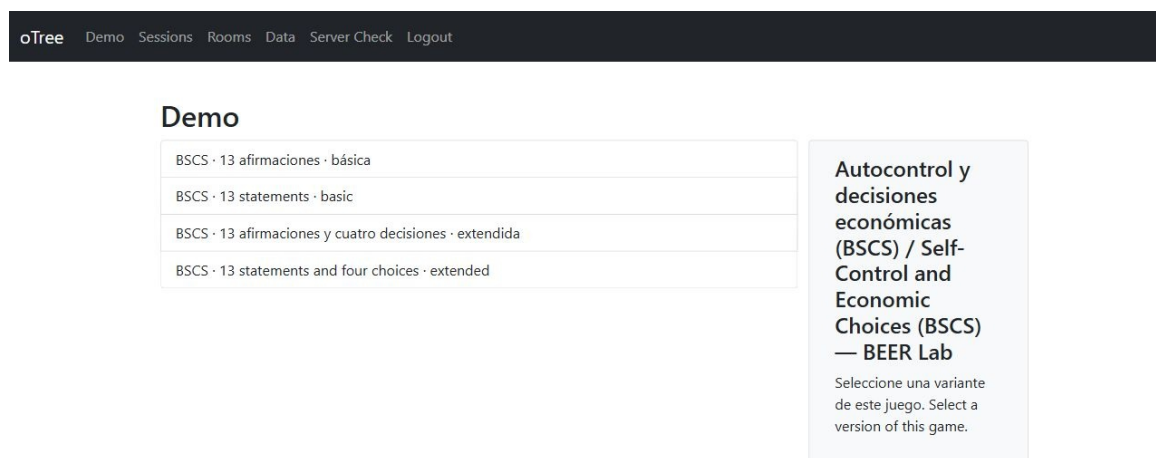


Figure 1.5: Choose among four configurations; extended editions add subsequent scenarios.

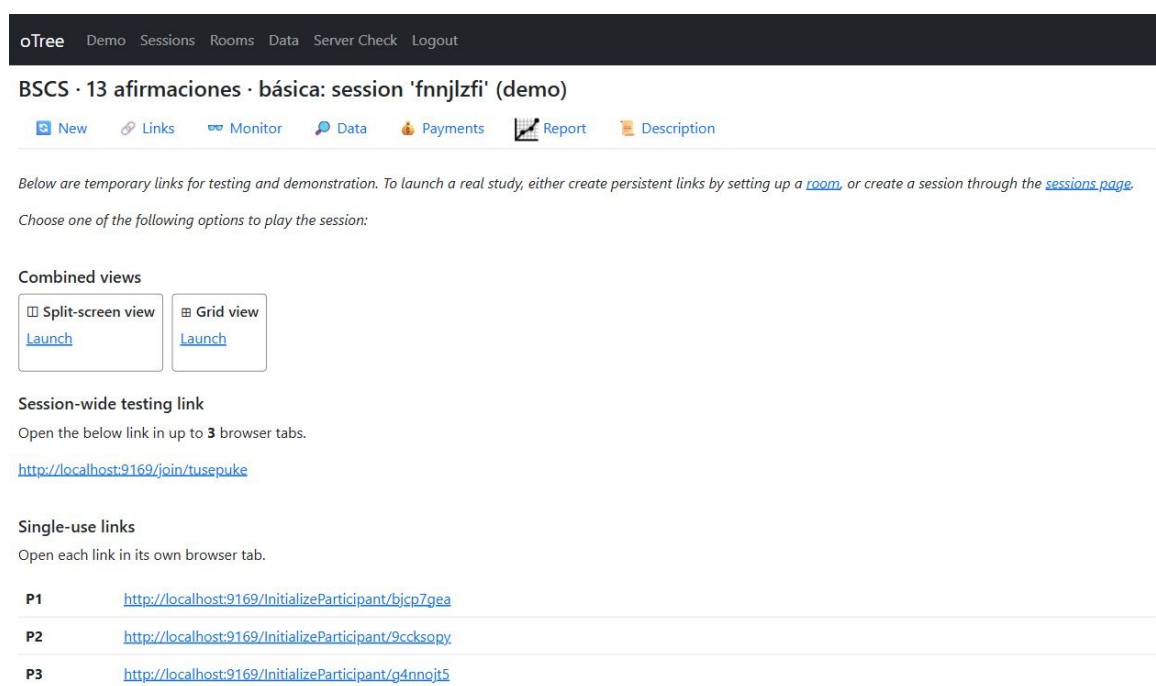


Figure 1.6: Assign one link per person and keep synthetic rehearsals separate.

Each session generates a questionnaire access code, available in a collapsed report panel. Share it with the cohort and close that panel before projection. This code differs from the administrative password and technical session code. An incorrect entry produces an explanation and allows correction; a successful entry is erased from its response field before proceeding. The gate restricts entry to the academic activity, but does not make screenshots or individual links suitable for unrestricted circulation. All demonstration positions shown in this guide are synthetic. The access procedure should remain an operational detail rather than a source of pressure to disclose personal responses.

1.4 Welcome, instructions and comprehension

The welcome introduces the laboratory, requests individual work and explains privacy. It does not announce a hypothesis about self-control or suggest a desirable profile before students answer. Instructions ask participants to describe how they typically are, explain that there are no correct questionnaire answers and present the scale from one to five. Intermediate positions remain numerical; they are not silently replaced with a different agreement format. A separate option permits omission. Students should read privately, without being required to discuss autobiographical examples with the room or justify why they selected a particular response.



Individual questionnaire

The Behavioral and Experimental Economics Research Lab in the Department of Economics at Tecnológico de Monterrey is a place to learn about economic decision making through controlled activities.

Participation rules

- Work individually and privately.
- Remain silent and do not discuss your responses with others.
- Follow the instructions on each screen.
- Do not refresh or close the page while responding.
- If you need help, raise your hand or contact staff privately.

Responses are private. The instructor may show aggregate results after choosing to reveal them. Individual profiles will not be projected.

Access code provided by the instructor

☐ I have read the rules and wish to start.

Start

Figure 1.7: The welcome explains participation rules without suggesting a desirable profile.

Before the first statement, a comprehension question asks what to do when a statement does not describe the participant well. The appropriate response is to choose the closest description or omit the item. Selecting what the instructor supposedly wants produces an explanation alongside the retained choice. This check teaches the procedure; it is neither a BSCS item nor an honesty test. Allow correction without penalty. Answer questions about controls without recommending substantive responses. The purpose is a shared understanding of the task before generating the data that will later enter the discussion.

BEER Lab

Instructions

Indicate how much each statement describes how you typically are. Use the scale from 1 to 5: 1 means not at all like you and 5 means very much like you. There are no correct or incorrect answers.

This is an individual activity. There are no partners, endowments or payments linked to responses. You may indicate that you prefer not to answer an item.

Responses are private. The instructor may show aggregate results after choosing to reveal them. Individual profiles will not be projected.

13 statements.

Continue

Figure 1.8: Explain scale, statement count, omission and the absence of payments.

BEER Lab

Before you start

If a statement does not describe you well, what should you do?

- ☐ Choose the option that best reflects how you are or indicate that you prefer not to answer
- ☒ Choose what you think the instructor wants to read

Your answer: Choose what you think the instructor wants to read. The correct answer is Choose the option that best reflects how you are or indicate that you prefer not to answer. Choose the first option: respond about yourself without trying to meet expectations. You may also omit an item using the corresponding option.

Continue

Figure 1.9: Comprehension feedback retains the choice and explains its correction.

BEER Lab

Statement 1 of 13

How much does this statement describe how you typically are?

I have a hard time breaking bad habits.

Your response

☐ 1 - Not at all like me☐ 2☐ 3☐ 4☐ 5 - Very much like me☐ I prefer not to answer**Confirm response**

Figure 1.10: Answer one statement per page or use explicit omission.

1.5 Completion, participation and score availability

In the basic edition, the thirteenth statement leads to an explicit closing page. Seventeen technical periods support the shared application, but the other four do not contain basic questions or require waiting for other people. Completion confirms that responses were recorded and asks students to keep the screen open. Participants should never be left at an unexplained technical ending. Extended completion follows the four scenarios and may subsequently display private feedback when enabled by the instructor. Reaching the closing page does not guarantee that a BSCS sum is available, because omission remains a permitted response.

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Activity complete

Your responses have been recorded. Keep this screen open and wait for the instructor's directions.

If private feedback is enabled, it will appear here after the instructor reveals the results.

Figure 1.11: Completion confirms recording; configured feedback requires instructor disclosure.

Distinguish how many people finished the procedure from how many supplied thirteen substantive answers. The former describes participation; the latter defines score availability. In an extended session, a participant can have a scoreable questionnaire while still answering scenarios. That BSCS enters the score distribution but the activity is not counted as finished. This avoids treating a delay in a scenario as the loss of all preceding answers. It also lets an instructor discuss available data without inventing answers for participants who have not yet completed the activity or deciding that an omission represents low self-control.

The measure and its scoring rule

2.1 What a self-report describes

A personality measure summarizes regularities in how people describe themselves. Participants rate statements about habitual behavior, feelings or preferences, and a published rule combines those responses. The resulting score depends on those regularities, the response context, understanding of the wording and willingness to answer. An individual observation therefore does not exhaust what we know about a person. The exercise is useful for teaching the distinction between a theoretical characteristic, an observable response and a constructed measure. Those are connected concepts, but they are not interchangeable objects.

Traits can help formulate economic questions: do participants reporting greater conscientiousness maintain a plan more often, or do social dimensions relate to contributions in a game? The questionnaire does not directly measure a utility function. A classroom correlation also leaves causal mechanisms unresolved. Teaching connects concepts, measurement and evidence while examining alternative explanations.

The initial unit of analysis is the person. Items are observations contributing to that person's measurement; they are not additional participants. Thirteen answers from one person do not create a sample of thirteen independent people. This matters when reading histograms, discussing uncertainty and linking questionnaires with repeated games. A student making ten game decisions and answering one questionnaire provides one individual profile and ten related decisions. This family's report identifies valid observations separately for each dimension and retains that individual unit rather than treating each item as an independent person.

Theoretical foundation

The construct is not directly observed. We observe responses, apply a key and obtain a score. Interpretation requires a justification for each connection between those levels. The platform automates the scoring key, but it does not replace that reasoning.

2.2 Self-control, preferences and opportunities

In everyday terms, self-control concerns regulating behavior when an immediate response conflicts with another goal. This can involve temptation, beginning a task or sustaining a plan. The questionnaire elicits general descriptions of such experiences, but does not directly observe every person's opportunities and costs. Two students can prefer an earlier reward for different reasons: liquidity needs, distrust of a payment promise, or preferences over consumption dates. Observing their common choice cannot establish which explanation applies. A useful classroom discussion

makes these competing mechanisms explicit before drawing conclusions from an individual score.

Economic analysis requires an explicit choice set. A restriction can reduce distraction while also removing a useful opportunity. An intermediate deadline can structure work while reducing flexibility in the face of an unexpected event. A preference for restrictions therefore has no universally positive value. Ask what is gained, what is lost and who knows the relevant circumstances. BSCS can motivate a hypothesis about differences between people, while a scenario illustrates a particular decision. Neither replaces an examination of incentives, information and resources. This distinction supports discussion of self-regulation without treating every deviation from a plan as evidence of a deficient personal trait.

2.3 An identified version with an important item order

Spanish statements and their English reference wording are taken from Table 1 of Torres-Marín and colleagues. Both languages preserve the table's order. In this source, resisting temptation occupies position seven, although other circulated forms place it first. Do not import a reversed-position list from a differently numbered sheet. The platform identifies the version, language, content and key through a provenance record. A familiar instrument name does not ensure that two numbered lists represent precisely the same administration. Checking content alongside identifiers is more reliable than assuming that identical numbers must refer to identical statements.

Published Spanish statement wording is distinguished from the interface added for this platform. Neutral instructions, translated endpoint labels and presentation of one statement per page are documented administration decisions. They are not described as a new validation of the entire digital procedure. This separation permits clarity improvements without attributing untested decisions to a publication. An investigation of equivalence across formats would require an explicit comparison, an identified population and appropriate measurement analysis before combining scores. Documentation makes such future work possible by preserving what participants saw and how their responses were transformed.

2.4 Recode before adding

Each substantive response is an integer from one to five. Four statements have a direct direction: positions five, seven, eight and eleven in the adopted source order. The nine reversed positions are one, two, three, four, six, nine, ten, twelve and thirteen. Direct statements retain their response. Reversed statements contribute six minus the response. Thus one becomes five, two becomes four, three remains three, four becomes two and five becomes one. Recoding changes the scoring contribution, not the wording or the response originally displayed and selected. Both values are preserved for audit.

Begin with a fictional statement so students can practice without exposing their answers. When a statement describes difficulty, selecting five contributes one to a sum oriented toward greater reported self-control; selecting one contributes five. Interpretation depends on content and direction, not the raw number alone. Ask students to identify the original answer and its scored contribution separately. A wrong key can produce a plausible total within the permitted range, so range checking is necessary but insufficient. Reconstructing a few contributions from the source provides a stronger check and demonstrates why version-specific scoring is part of measurement rather than a minor programming detail.

Theoretical foundation

Let x denote a response from one to five. Its contribution is x for a direct item and $6 - x$ for a reversed item. The sum adds thirteen contributions. Dividing that sum by thirteen produces the item average, a different expression of the same information.

2.5 Bounds, sums and item averages

The minimum is thirteen, when every scored contribution equals one; the maximum is sixty-five, when each equals five. Selecting three throughout yields thirty-nine and an item average of three. Selecting one throughout does not yield thirteen: nine reversed items contribute forty-five and four direct items contribute four, giving forty-nine. This illustrates why a response sequence cannot be interpreted without the key. Statements point in different directions. Ask students to distinguish a low numerical answer from a low scored contribution, then use the questionnaire's identified order to verify their calculation.

The sum and item average contain identical information when all thirteen responses are required. Fifty-two, for example, corresponds to an average of four. The report includes both to support different reporting conventions without treating them as independent tests. An association between the sum and a choice, followed by the same analysis using the item average, is not a second replication. Nor should those two columns be averaged as if they measured separate constructs. Select one convention for the substantive question and use the other to verify or communicate the result. The transformation itself should be understandable without software.

2.6 Why missing answers are not imputed

This implementation requires thirteen substantive answers to calculate the sum. One missing answer leaves the result blank. That does not mean the participant has zero self-control or that their participation has no value; the complete measure is unavailable under the stated rule. Existing responses are retained, explicit omission differs from pending work, and the report counts observations excluded from the distribution. This conservative decision keeps denominators understandable and prevents the same score label from describing different sets of answered statements. It also gives students a concrete opportunity to distinguish data recording from analytical assumptions.

Suppose twelve observed contributions total forty-eight. Dividing by twelve gives four. Inventing a contribution of three and dividing the new total by thirteen instead gives approximately three point ninety-two. Neither calculation recovers the missing response. A study may propose a missing-data method with assumptions and sensitivity analysis, but it should not silently introduce that method as the original complete score. Here the unavailable sum stays visible. Instructors can demonstrate alternative assumptions with clearly identified synthetic data, then ask which missingness mechanism would make each assumption more or less credible. The exercise should preserve the difference between an observed answer and an analytical replacement.

2.7 Factor structure and subscale restraint

Tangney, Baumeister and Boone's original work proposed a general measure and motivated widespread use of the brief form. Subsequent research has debated whether its items reflect one factor or related components. The Spanish adaptation used here also examines alternatives.

This family retains the thirteen-item sum as a conventional descriptive summary and does not automatically attach subscale labels. Preserving a calculation does not demonstrate that a single factor adequately explains all item covariation in every population. It is possible to calculate a familiar index correctly while retaining substantive uncertainty about its latent interpretation.

An index combining organization, distraction resistance and deliberation offers an intuitive example. Its sum can be reproducible without making those manifestations interchangeable. Two people with the same total may answer differently. Factor analysis investigates structures that might explain such relationships; it is not resolved by looking at one histogram bar. Do not borrow fragments from seven-, eight- or nine-item versions and call them equivalent to the complete BSCS. Each selection requires its own source, key and interpretation. The guide discusses these alternatives so instructors can understand the literature without silently changing the implemented instrument.

2.8 What the consulted evidence supports

The 2004 study links the self-report with several personal and academic outcomes. It supplies evidence about initial construction and use, rather than an error-free rule for predicting an individual student's behavior. The 2024 Spanish study provides identified translated wording and evidence against an uncomplicated one-dimensional interpretation. Research on alternative short forms further motivates keeping versions separate. These contributions support measurement questions; they do not establish that a digital classroom administration in Mexico has been locally validated. Source provenance and population-specific validation are different forms of evidence and should be explained as such.

Present three levels of support. First, there is the provenance of statements and scoring directions. Second, there are psychometric findings from identified populations and formats. Third, there is the evidence needed for the particular use proposed by the class or a future study. Implementation can satisfy the first level and document the second without claiming the third is settled. This avoids excessive confidence in a well-known label while retaining the value of a carefully designed teaching exercise. Ask students which proposed use would require stronger evidence and how they would obtain it rather than treating all uses as equally justified.

Attention

Resisting temptation is statement seven in this source. Do not use a reversal list from a differently ordered form. Translations, keys and hypothetical decisions retain their own identifiers.

Hypothetical choices and economic mechanisms

3.1 Separating the questionnaire from the scenarios

Extended participants complete the thirteen statements before the scenarios are announced. A separate introduction explains that the situations are imaginary and asks whether any real payment will occur. The appropriate answer is that neither payments nor real obligations are created. A belief that the selected amount will be received is corrected before proceeding. This transition protects the distinction between tasks. New responses are exported as decisions with their own identifiers; they never acquire right-answer or reversal keys that would turn them into psychological scale items. The hypothetical status remains visible on each scenario page.

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An additional choice

Four independent imaginary situations follow. They are not part of the preceding questionnaire. There are no payments or real obligations. ECU means a unit of account in the example; it is not converted into money. Choose the option you prefer or indicate that you do not wish to answer.

Will these examples lead to any real payment?

- ☐ No. These are hypothetical situations without payments or real obligations.
- ☒ Yes. I will receive the amount I select.

Your answer: Yes. I will receive the amount I select.. The correct answer is No. These are hypothetical situations without payments or real obligations.. The first option is correct: the examples are hypothetical. There are no payments or real obligations.

Continue

Figure 3.1: Correct payment expectations before hypothetical scenarios begin.

Do not call the extension an automatic behavioral validation of BSCS. A stated choice in an imaginary situation is another observation, also sensitive to context and wording. Its teaching value lies in making mechanisms concrete, comparing assumptions and asking what an incentivized study would require. A discrepancy between self-report and choice need not mean that either answer is false. The situation, horizon, interpretation of options or imagined cost may differ. Ask

students to explain that possibility before interpreting an association or designing a follow-up experiment that could discriminate among mechanisms.

3.2 The first timing choice

The first scenario offers one hundred ECU today or one hundred and ten in seven days. Both amounts are described as guaranteed and free of fees. ECU is a unit of account in the example, with no monetary conversion or real endowment. Ten units compensate waiting within the imagined situation. Preferring the immediate alternative is compatible with several temporal preferences. The question alone does not estimate an exact discount rate: it reveals a comparison relative to a threshold, without establishing a utility function or observing an actual payment. Treat those limitations as part of the example rather than omitting them after the calculation.

Hypothetical scenario · 1 / 4

Two possible dates

Imagine receiving one of these amounts. Both are guaranteed, with no fees or differences in risk. Which do you prefer?

Scenarios are hypothetical and generate no payments. ECU is a unit of account in the example, without conversion into money or a real endowment.

Your response

- ☐ 100 ECU today
- ☐ 110 ECU in seven days
- ☐ I prefer not to answer

Confirm response

Figure 3.2: Compare one hundred ECU today with one hundred and ten in seven days.

For a teaching benchmark, assume linear utility and a weekly discount factor d . Waiting is attractive when one hundred and ten times d is at least one hundred. The threshold is ten divided by eleven, approximately zero point ninety-one. An immediate choice falls below that benchmark only under the assumed utility, certainty and absence of other relevant differences. Ask for the assumptions before the numerical answer. The platform does not store the threshold as an individual parameter estimate, and instructors should not convert a single binary response into a precise claim about someone's patience or an annualized financial rate.

3.3 Shifting both dates

The second scenario offers one hundred ECU in seven days or one hundred and ten in fourteen. Amounts and the one-week distance remain unchanged. Under stationary exponential discounting with other conditions held constant, shifting both dates should preserve their ranking. Students can use that benchmark to interpret response combinations. Choosing sooner in the first comparison and later in the second is compatible with special sensitivity to immediacy, but does not uniquely

identify its cause. Reversing a ranking across questions is an observation that calls for explanation, rather than a psychological diagnosis supplied by the software.

Hypothetical scenario · 2 / 4

Another pair of dates

Now imagine these amounts, both guaranteed, with no fees or differences in risk. Which do you prefer?

Scenarios are hypothetical and generate no payments. ECU is a unit of account in the example, without conversion into money or a real endowment.

Your response

- ☐ 100 ECU in seven days
- ☐ 110 ECU in fourteen days
- ☐ I prefer not to answer

Confirm response

Figure 3.3: Shift both dates and compare patterns without personal labels.

A quasi-hyperbolic illustration adds a factor b to future outcomes as well as weekly discounting d . The first waiting option requires b times d times one hundred and ten to compare favorably with one hundred. In the second comparison, b applies to both options and cancels, leaving the ranking dependent on d . This illustrates a mechanism associated with Laibson's model; two answers do not estimate b and d . Confusion, imagined liquidity needs or preferences for particular dates can also affect the observed pattern. A credible empirical analysis would need additional choices and a design that addresses those alternative explanations.

3.4 Commitment preferences and the cost of flexibility

The third scenario describes an assignment due on day twenty-one, with possible milestones on days seven and fourteen. Content, grading and the final deadline are identical. Milestone dates are either changeable or binding and unchangeable. There are no monetary penalties. A restricted arrangement may appeal to someone who anticipates difficulty following a plan, while also being costly under uncertainty about future time. The response records a stated preference over that arrangement, not actual delivery behavior. The hypothetical choice does not create new deadlines for this course, and participation in the questionnaire should not be treated as acceptance of an academic obligation.

Ariely and Wertenbroch provide a basis for discussing demand for commitment and the separate question of designing it effectively. This activity does not reproduce their tasks or results. Ask how penalties, revision opportunities or monitoring would change the arrangement. Someone selecting flexibility might trust their organization or anticipate important unexpected demands. Someone selecting binding milestones might value external structure. Without reasons, costs and later behavior, those preferences cannot be ranked by self-control quality or assigned causal effects on performance. A useful follow-up design would separate choosing a commitment from receiving one through randomized assignment.

Hypothetical scenario · 3 / 4

Organizing an assignment

Imagine an assignment due in 21 days. Content, grading and the final deadline are identical in both options. You can plan milestones for days 7 and 14. There are no monetary penalties. Which arrangement would you choose?

Scenarios are hypothetical and generate no payments. ECU is a unit of account in the example, without conversion into money or a real endowment.

Your response

- ☐ Milestone dates can be changed; the final deadline remains day 21
- ☐ Milestone dates are binding and cannot be changed; the final deadline remains day 21
- ☐ I prefer not to answer

Confirm response

Figure 3.4: Distinguish flexible milestones from binding commitments in an imaginary assignment.

3.5 Changing the situation before distraction develops

The fourth scenario concerns thirty minutes of study with recreational apps available or blocked. The apps contain no information needed for the task, while urgent calls remain available in both options. These conditions focus attention on distraction availability. Blocking represents a preference for modifying a situation in advance. Keeping access may reflect another plan or a valuation of flexibility. The response does not measure actual study time, demonstrate immunity to distraction or authorize the platform to change device settings. The teaching task records a choice about an imagined environment; it does not implement that environment on the participant's computer.

Duckworth, Gendler and Gross's situational strategy framework distinguishes changing circumstances from resisting an already intense temptation. The teaching question concerns when intervention occurs, at what cost and with what information. Compare disabling notifications, moving rooms and planning a break as conceptual examples. This activity does not establish which strategy works best. A study addressing effectiveness would need strategy assignment, subsequent behavior and comparable outcomes. In particular, participants who select a strategy may differ before it begins, so their later performance cannot automatically reveal its treatment effect. Choosing and experiencing an intervention are different events.

Hypothetical scenario · 4 / 4

Preparing a study session

Imagine studying for 30 minutes and choosing how to configure recreational apps. They contain no information needed for the task; urgent calls remain available in both options. Which do you prefer?

Scenarios are hypothetical and generate no payments. ECU is a unit of account in the example, without conversion into money or a real endowment.

Your response

- ☐ Keep recreational apps available
- ☐ Block recreational apps for the 30 minutes
- ☐ I prefer not to answer

Confirm response

Figure 3.5: The choice records a preference without blocking actual apps.

Reading reports, discussing evidence and closing the class

4.1 Progress counters and score distributions

The private report shows participants, finished activities, finished questionnaires and scoreable BSCS records. Aggregates remain hidden until the instructor reveals them. Disclosure displays the sum and item average with mean, median, sample standard deviation and valid N. A blank standard deviation with one observation is not zero; the sample contains insufficient information for that dispersion calculation. The histogram contains only scoreable sums. Integer intervals do not overlap, and bars represent frequencies rather than membership in psychological categories. A distribution drawn from a classroom cohort should not be presented as a population reference chart.

Before interpreting a mean, ask a student to state its numerator and denominator. Two sums of thirteen and sixty-five average thirty-nine even though neither participant has that sum. A group entirely scoring thirty-nine has the same mean and a different distribution. This comparison teaches aggregation and heterogeneity without identifying individuals. Then ask who is missing from the calculation and why. A cohort with more omissions may appear different because of observation selection, even when observed answers do not reflect a substantive population difference. Availability should be part of the explanation rather than a small technical footnote.

4.2 Scenario tables and descriptive comparisons

Each scenario reports how many participants answered, omitted it or remain pending. Option percentages use only those answering that scenario. Alongside an option, the report gives the count with scoreable BSCS and their mean sum. These denominators can differ: someone may select an option while omitting a questionnaire statement. If six select blocking and only four have complete scales, option frequency is six while the BSCS mean uses four. Do not erase that distinction or present the columns as if they described an identical analytical sample. The separate counts make the relationship auditable.

Timing combinations include only participants answering both timing scenarios. The report lists four possible pairs without assigning personal labels. Five people selecting sooner in the first comparison and later in the second motivate discussion of the benchmark and its assumptions; they do not represent five diagnosed instances of present bias. The extension places self-report and stated choices in one session, but does not randomize self-control or observe paid rewards. Use language such as association in this sample and a pattern compatible with a mechanism, then identify what additional evidence would alter that interpretation.

BEER Lab

Self-control instructor report (BSCS)

Brief Self-Control Scale (BSCS-13) · Extended · en

Language version: English reference items reproduced in Torres-Marín et al. (2024), Table 1; BEER Lab interface instructions.

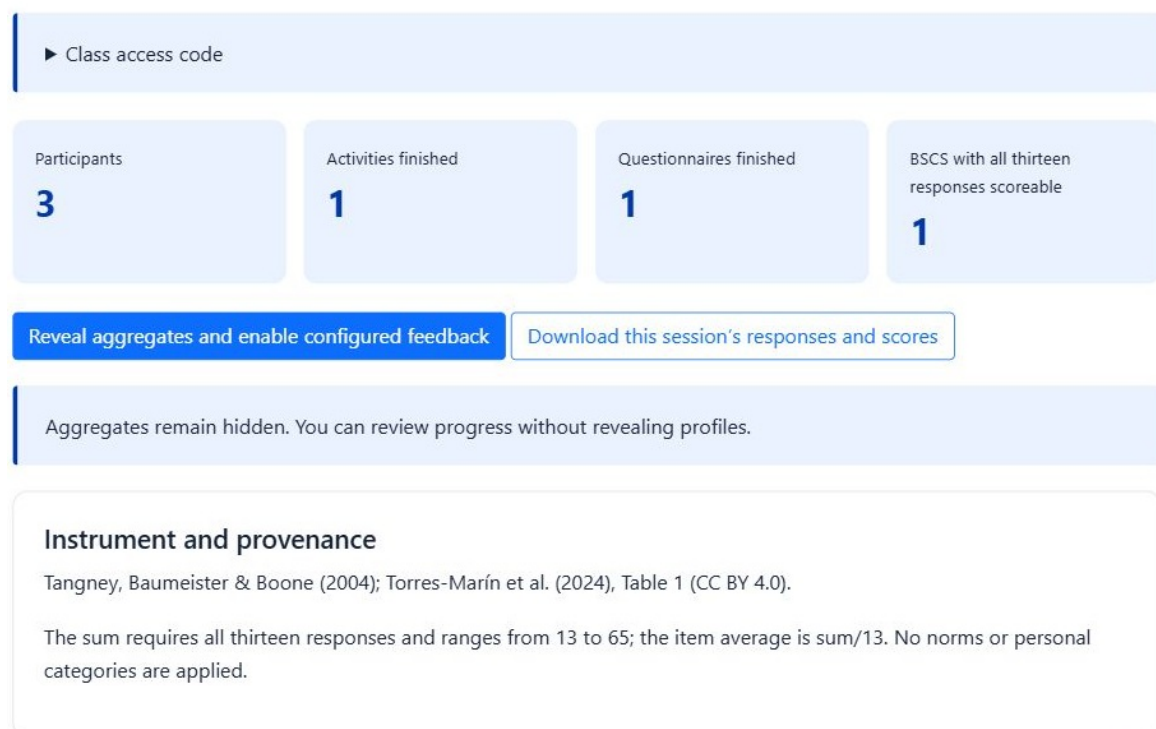


Figure 4.1: Review progress with aggregates hidden and close the code panel.

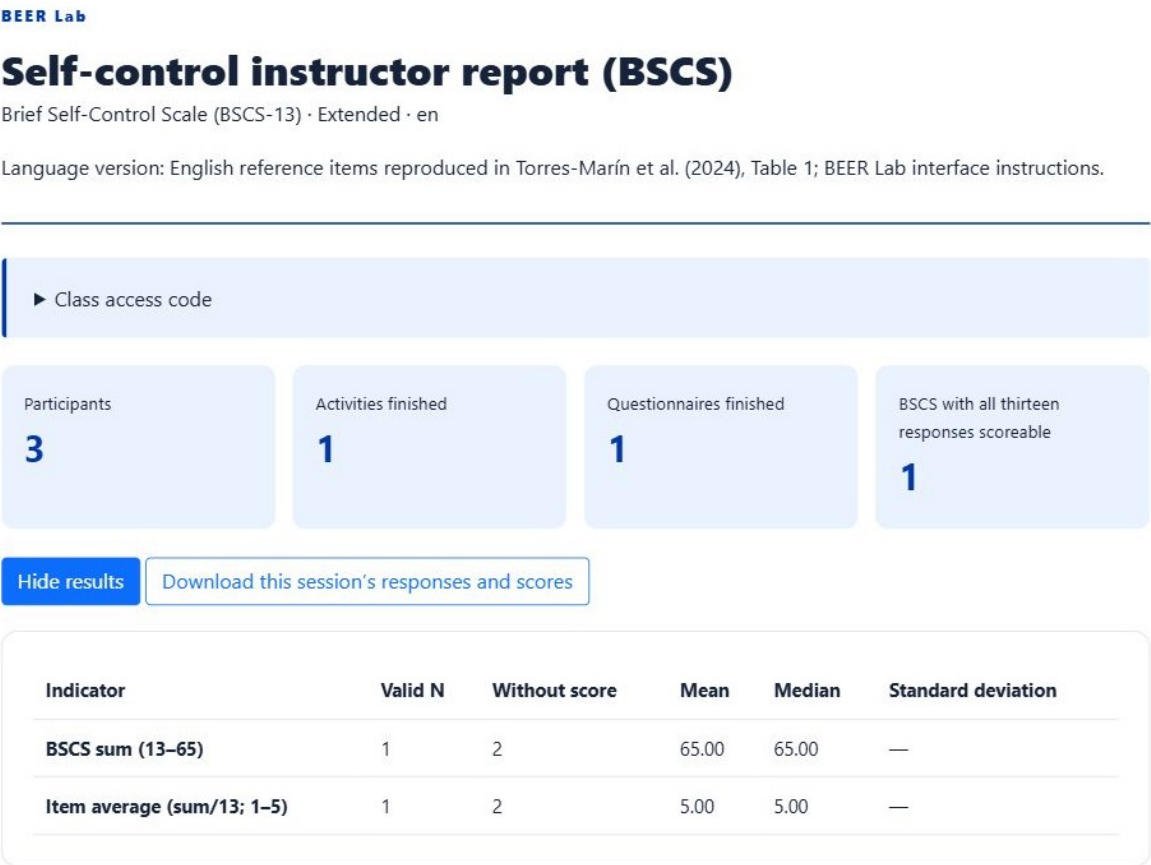


Figure 4.2: Distinguish activities, questionnaires and scoreable sums before interpreting means.



Figure 4.3: Retain N and frequencies; intervals describe only this session.

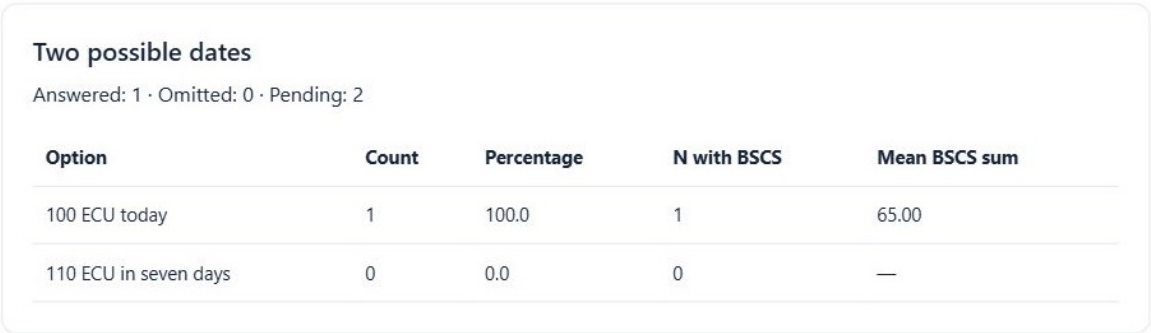


Figure 4.4: Separate choice denominators from the N with scoreable BSCS.

4.3 Disclosure and individual feedback

Close the access-code panel before projection and confirm that the report displays no identifiable profiles. Disclosure shows aggregates and, in extended editions, enables feedback on the closing page for participants who finished the activity. Each receives only their own sum and item average, or a dash if a statement is missing. Hiding results removes that feedback on the next page query. A short update interval may occur; do not reset the database or terminate a session to manage this state. Instructor disclosure is a presentation control, separate from data collection and from calculating an available score.

BEER Lab

Activity complete

Your responses have been recorded. Keep this screen open and wait for the instructor's directions.

Your descriptive profile in this activity

BSCS sum (13–65): 65 / 65

Item average (sum/13; 1–5): 5.00 / 5

The sum and item average express the same thirteen responses. A dash means at least one response is missing. These results are not diagnoses, grades or percentiles.

Figure 4.5: Private feedback shows sum and item average after disclosure.

Do not ask for raised hands by score interval or encourage comparing private screens. Demonstrate privacy with synthetic responses. When a result surprises someone, discuss version and procedure privately without diagnosing its cause. The classroom sequence should move from observation to interpretation: what was answered, which rule produced the measure and which economic question could be studied next. Feedback supports understanding of measurement, not a personal evaluation to be rewarded or corrected by the course. Students can disagree with an interpretation while still learning how the scoring convention works.

4.4 Exporting and reconstructing the calculation

The report download contains twenty-eight columns and is limited to the selected session. Each participant has thirteen item rows and two outcome rows; extended records add four choice rows. Three basic participants produce forty-five data rows plus the header, while three extended participants produce fifty-seven. Pending rows are retained. Raw response, item direction, scored contribution, version, language and content fingerprint make reconstruction possible without relying on a number copied from the report. Identifiers support auditing within authorized teaching work and should not be distributed as a public list of student profiles.

Choice rows have no BSCS contribution. Their response is interpreted within the identified scenario, rather than as a value on the questionnaire's one-to-five scale. Sum and item-average rows remain blank when responses are missing while retaining the count of valid items. Native wide export instead has one row per participant and period-specific columns, so its row count differs. Identify the format and session code before analysis. Outcome rows are not additional people, and synthetic

demonstrations should not be combined with the real cohort. The codebook documents each field and the meaning of empty values.

4.5 Inference errors to anticipate

A score is not an unchanging essence or a moral identity. It is also not a recommendation for selecting partners or assigning educational opportunities. The activity teaches measurement and decisions. When a student finds a result surprising, invite consideration of item content and response context. Do not interpret disagreement with a profile as resistance to a truth discovered by the platform. A measure has limitations even when its formula is correctly implemented. Taking those limitations seriously makes the exercise more rigorous and can improve the quality of the classroom conversation.

Reliability and validity are not synonyms. Consistent responses may measure something different from the intended construct, and a broad dimension can include diverse behaviors. Do not use a coefficient calculated in a small class as a definitive certificate for the instrument. A formal study should specify hypotheses, procedure, population, analysis and handling of missing values. The classroom session should retain a descriptive reading and turn limitations into questions that students can understand and assess. That approach allows methodological sophistication without requiring the instructor to pretend that one short activity has resolved every measurement problem.

4.6 A classroom plan and concluding questions

For fifty to seventy-five minutes, reserve five for access and rules; three to five for basic administration or five to eight for extended administration; ten for synthetic scoring; ten for progress, N and distribution; fifteen for scenarios or comparison design; and the remainder for conclusions. These are planning estimates rather than validated times or automatic limits. If students need longer to read, reduce later discussion topics while preserving comprehension. Response speed is not the behavior being rewarded. The instructor's role is to provide a common procedure and enough time to reason about the observations that follow.

Feedback script

First describe what we observed. How many people supplied a complete sum? Which operation transformed the answers? Then compare decisions: which assumption would connect them with self-control, and what alternative explanation remains? End by identifying the observation that would help distinguish those explanations.

A sound conclusion can be modest and precise: an identified self-report was constructed, missing data remained visible, and scenarios were used to formulate mechanisms. Associations need not match the instructor's initial expectations. A small sample or an option with no variation is part of the evidence. Ask each team to propose a hypothesis, an analysis unit, a comparison and a missing-data rule. The final objective is a better research question and a clearer understanding of the distance between descriptive measurement and a causal claim, rather than agreement on a ranking of classmates.

Checkpoint

Check language, edition, access and session. Assist without directing answers. Review N, choose disclosure and download only the intended session.

Worked problems and solutions

These cases use synthetic data and teaching assumptions. They do not describe real students or empirical findings. Begin with the calculation, identify its denominator and conclude with the permissible interpretation. Each solution can be used independently, or assigned to teams before opening the classroom report. Numerical correctness and evidential justification should remain separate parts of every answer.

What participants will see

Work through cases using synthetic data before opening the report. Put raw response, reversal, contribution and total in separate columns. State who contributes to each mean and which interpretation cannot be supported.

5.1 Calculating with the correct version

1 Selecting three throughout

A participant selects three on all thirteen statements. Direct items retain three; reversed items become six minus three, also three. The sum is thirteen times three, or thirty-nine, and the item average is three. This does not establish that the person is average in a population: three is a numerical midpoint, not a percentile. We also do not know whether the repeated response was reflective or selected for another reason. Separate the arithmetic check from an assessment of response quality. Correct calculation is necessary for interpretation, but cannot itself establish sincerity, precision or relative standing. Ask students which additional observations would help evaluate those separate questions.

2 Selecting one does not produce the minimum

Now all raw responses equal one. Nine reversed statements contribute five each and four direct statements contribute one. The sum is forty-nine, with an item average of approximately three point seventy-seven. Adding without reversal would produce thirteen, an error of thirty-six points. Range checks cannot detect every scoring mistake: thirteen is itself possible under different responses. Reconstruction must examine specific contributions and consult this version's key. A uniform sequence may motivate a data-quality discussion, but the platform does not automatically exclude it or turn it into a psychological conclusion. Explain why an apparently plausible total is weaker evidence of correct scoring than a reproducible reconstruction.

3 Constructing the maximum and minimum

To obtain sixty-five, the nine reversed statements must receive one and the four direct statements five. Every scored contribution is five. To obtain thirteen, reverse those raw choices: five for reversed statements and one for direct statements. These are mathematical extremes, not descriptions of ideal or defective people. Check positions five, seven, eight and eleven, which are direct in this source order. Ask two teams to exchange raw answer sets and verify each other's total. This demonstrates reproducible auditing without examining actual student profiles. It also shows that different raw-response directions must be coordinated to produce an extreme sum rather than simply selecting the largest number everywhere.

4 Swapping the key at positions one and seven

Every response equals three except position one, which is one, and position seven, which is five. Under the adopted key, both contribute five instead of the two contributions of three in the midpoint case. The sum rises from thirty-nine to forty-three. Incorrectly treating the first as direct and the seventh as reversed would make both contribute one, producing thirty-five. The eight-point difference comes from a wrong order, not a new participant response. Resisting temptation is position seven here. Identifying the version and statement prevents seemingly compatible files from producing contradictory scores. Ask students why a key attached only to a familiar instrument name is insufficient provenance.

5 Twelve contributions totaling forty-eight

Twelve observed contributions total forty-eight and one statement is missing. The platform leaves the sum and item average blank, retaining twelve valid answers out of thirteen. It neither reports forty-eight as a complete sum nor automatically divides by twelve. For sensitivity discussion, the missing contribution could range from one to five, placing a complete sum between forty-nine and fifty-three. That interval describes possibilities without recovering the response. Inserting three would artificially reduce uncertainty. An imputation method needs explicit assumptions and separate evaluation. The exercise makes clear why retaining available answers does not require presenting a partial score as if the complete measure had been observed.

6 Omitting an item versus not reaching it

Two participants lack a substantive answer on statement five. One selected the omission option; the other has not reached that page. Both substantive responses are blank in the CSV, but the first has status omitted and the second pending. Technical zero for omission is not exported as the scale minimum, which is one. Neither participant has a complete sum. These states permit discussion of participation without assuming the same missing-data process. If the second person later responds, their status changes; the explicit omission retains its meaning as a decision not to answer. Blank cells alone therefore cannot describe every aspect of the information available to the analyst.

5.2 Distributions and denominators

7 Only one score is available

A session contains three participants but only one scoreable sum of fifty-two. Mean and median are fifty-two, valid N is one and two people lack a score. Sample standard deviation is blank because its denominator requires at least two observations. Do not call it zero or infer homogeneity. A single histogram bar does not represent the entire cohort. Before projecting similarly sparse real data, consider whether someone can be recognized; synthetic data are preferable for demonstrating the calculation. Availability, dispersion and privacy are distinct issues that an isolated mean can conceal. Ask students to identify which information belongs to each issue before proposing a summary for the class.

8 Equal means with different distributions

Group A has sums of thirteen and sixty-five. Group B has two sums of thirty-nine. Both means are thirty-nine. Sample standard deviation is approximately thirty-six point seventy-seven in A and zero in B. A mean neither identifies its distribution nor guarantees that any participant has that value. Draw the bars before discussing substantive differences. The solution is not to declare one group superior: averages coincide under the selected convention. What differs is observed heterogeneity. Explaining that difference requires information and a design absent from this numerical example. This problem links the report's separate summaries to different questions rather than treating each statistic as interchangeable evidence.

9 Questionnaire complete, extension still pending

An extended participant answered all thirteen statements but has not started the scenarios. Their questionnaire is complete and scoreable, while the whole activity remains pending. Each scenario contains a pending row rather than an explicit omission. The sum distribution can include this person, but scenario tables do not yet include them among those choosing an option. These counters do not contradict each other; they describe different information sets. Ask students when each counter changes as the participant advances. The question exposes the mistake of requiring an additional decision before acknowledging scale responses that were already available. It also distinguishes questionnaire availability from the condition for receiving end-of-activity feedback.

10 Counting rows without inventing participants

Three basic participants each have thirteen item rows and two outcome rows: three times fifteen equals forty-five data rows, plus the header. Extended records add four choices per person: three times nineteen equals fifty-seven data rows, plus the header. Both formats have twenty-eight columns. Seventeen technical periods do not create seventeen basic questionnaire items, and sum and mean rows are not extra people. Native wide export instead has one row per participant and a different column organization. Identify the file's unit before computing sample sizes or combining tables. A correct row count can verify an export while still being the wrong denominator for a claim about individual observations.

11 Blocking percentage and BSCS mean

Twelve people belong to an extended session. Ten answered the app scenario, one omitted it and one remains pending. Six chose blocking, so the percentage among answers is sixty, rather than fifty. Only four of those six have complete BSCS records, with sums of twenty-six, thirty-nine, fifty-two and sixty-five. The associated mean is forty-five point five and uses four people even

though the option count is six. This difference is not a reporting error. It makes visible that availability of a choice and availability of a questionnaire are distinct inclusion conditions. Ask students to write both denominators before comparing the option with another group or proposing a statistical analysis.

5.3 Reasoning about scenarios

12 A weekly threshold

Under linear utility and weekly discounting d , waiting seven days for one hundred and ten ECU is attractive when one hundred and ten times d is at least one hundred. The threshold is ten over eleven, approximately zero point ninety-one. With d equal to zero point ninety-five, discounted value is one hundred and four point five, favoring waiting; with d equal to zero point eighty, it is eighty-eight, favoring the sooner option. This illustrates a model without estimating anyone's parameter. Certainty, costs and utility form are substantive assumptions. Ask which step fails when the later payment promise is less credible rather than treating every immediate choice as evidence of impatience.

13 An illustration of sensitivity to immediacy

Suppose a quasi-hyperbolic model has b equal to zero point eighty-five and d equal to zero point ninety-seven. In the first comparison, one hundred and ten times b times d is approximately ninety point seventy, below one hundred, so today is selected. In the second, the common future factor cancels: one hundred is compared with one hundred and ten times d , or one hundred and six point seven, favoring the later alternative. This constructs one possible pattern. It does not recover those parameters from classroom answers. Other parameter pairs and other explanations can generate the same observed combination. The distinction between producing a prediction and identifying a parameter is the central lesson.

14 The denominator for paired choices

A cohort contains twelve participants. Eight answered both timing scenarios, and five of those eight chose sooner in the first and later in the second. The percentage among complete pairs is sixty-two point five. Dividing by twelve would yield forty-one point sixty-seven, a proportion with another denominator that includes incomplete responses. The report displays combination counts and complete-pair N . Preserve both figures in discussion. Nor should the five participants be described as diagnosed cases of present bias: the task is hypothetical and does not uniquely identify that mechanism. Its pattern begins a research question. Ask what additional choices or controls would help distinguish the benchmark model from alternative explanations.

15 Choosing binding milestones

In a synthetic example, people preferring binding milestones have mean BSCS fifty and those choosing flexibility mean forty. The descriptive difference is ten points. It is neither the effect of deadlines on self-control nor the effect of self-control on choice. Nobody was randomly assigned a score and milestone arrangements were only imagined. Anticipated workload, confidence and need for structure could affect both variables. A future design might assign arrangements and observe later submissions, but that would be another study. Identify its outcome, treatment

and comparison group before attaching causality to the current mean contrast. Choosing an arrangement also differs from complying with it when actual costs arise.

16 Selecting blocking does not change the device

A participant chooses to block recreational apps. The platform records the answer and continues; it neither changes device settings nor observes subsequent study. The response is a stated preference under imagined conditions. Relating it to a score can motivate a hypothesis about situation selection without demonstrating the effectiveness of real blocking. Effectiveness would require an authorized implemented intervention and comparable later outcomes. Allowing essential apps or blocking urgent calls would change the economic problem. Keeping those conditions explicit illustrates why scenario wording belongs to experimental design. The exercise also distinguishes a recorded intention from a technological action and from the behavior that an intervention might eventually seek to change.

17 A result that differs from expectations

The class expected higher BSCS to accompany later rewards, but means by option are almost equal. A small visible difference could reflect a weak relationship, a small sample, little variation, measurement error or an inappropriate proposed mechanism. Do not correct the result by recoding choices or excluding observations after seeing it. Describe N, distributions and limitations, then propose a more informative design. A prediction made in advance helps distinguish learning from selective reporting. Disagreement with expectations can itself be a useful teaching conclusion. Ask teams which explanation their present data can rule out, which remains possible and which new observation would be most valuable for the next study.

5.4 Design, privacy and provenance

18 Linking BSCS with Grit or Big Five

An instructor wants to relate BSCS to Grit and conscientiousness. These families remain distinct instruments. Linking would require an authorized pseudonymous-code procedure, identified cohorts and recorded versions; this activity does not automatically create a battery or join unrelated sessions. Correlation between sums does not establish construct identity, and one total cannot fill missing answers in another instrument. State the question, privacy procedure and people with complete observations for each analysis. The platform provides exports, while conceptual justification and linkage design remain explicit study responsibilities. Different instruments can contribute complementary information without becoming interchangeable measures or producing a single composite personality score justified merely by sharing a participant.

19 Comparing languages

Two language groups have means of forty and forty-four. The difference is four observed sum points, not an identified language effect. Composition, comprehension, experiences and administration can differ. Shared content references and response counts do not establish scalar equivalence in a new population. Preserve language and version identifiers. A study of language administration could define a population competent in both languages and use an appropriate assignment or counterbalancing procedure, while still evaluating measurement properties. Treat the current contrast as a question rather than a cultural attribute. This solution distinguishes equal scoring

arithmetic from the stronger claim that equal numerical results have identical measurement meaning across groups.

20 Deciding when to project

Only one participant finished, and the instructor knows who it was. Although the report does not print their name, projecting the single sum could identify them. Removing explicit identifiers does not guarantee anonymity in every context. Keep results hidden and explain the procedure with synthetic records, or wait for less identifiable aggregates. Controlled disclosure supports that decision; it does not require projection as soon as a value appears. Individual feedback also need not be displayed to classmates. This case combines a technical control with a use judgment consistent with teaching and privacy. Ask students to explain why the same table can be harmless in a synthetic demonstration and revealing in a small real cohort.

21 Checking a downloaded session

Two sessions are open and the instructor downloads the extended one. With three participants, fifty-seven data rows are expected, all carrying that session's code. If only one person finished, the other two retain thirty-four active pending rows plus their unscored outcome rows. This is correct: they should not disappear because they have not started. The download must exclude questionnaire access codes and records from the basic session. Completeness includes information about what is missing. Counting only answered records would obscure progress and cohort denominators. Check scope, columns, row types and missing states before interpreting a file's values or presenting an aggregate reconstructed from its contents.

22 Auditing the card before publication

A guide contains purpose, editions, participants, decisions, duration and results in both languages. Yet the importer searches only guide directories with the expected `guia_docente` prefix inside docs. Saving information elsewhere can leave a description blank even when a human reader finds it. Respect the expected path, include the literal room name and exercise the panel extractor rather than checking field presence alone. That test is part of this family's delivery. Already deployed games keep separately saved panel cards, which do not automatically change when a guide is edited. Distinguish a prepared source from an updated public card. The case turns a practical integration failure into a lesson about verifiable delivery contracts.

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American Economic Association. JEL classification, consulted 17 October 2026. A22: undergraduate teaching; C83: survey methods and sampling methods; C91: laboratory individual behavior; D91: psychological, emotional, social and cognitive factors in decision making. These codes describe the family's teaching purpose, individual measurement and behavioral mechanisms.

Synthetic captures and institutional navigation: 17 October 2026. Guide and scenarios: Stanislaw Maldonado, BEER Lab, retaining the publication attributions identified above.