Facilitator guide: Module 11, Auction theory and behavioral economics

A teacher-facing companion to Module 11. The module is the full lesson; this guide adds the facilitation layer: a preparation checklist, timing cues, guidance for the discussion questions, and notes on what to emphasize and where students get stuck. Slides and a printable version are below.

At a glance

- **Length:** 90 minutes. A 60 minute and a 120 minute variant are noted under Teaching notes.
- **Level:** upper-level undergraduates and graduate students who have completed an introductory microeconomics or game theory course. No finance industry background is assumed.
- **Access:** the no-code sandbox at sandbox.altfndata.com only. No API key is needed. Students self-register with a work or school email and are approved automatically.
- **Goal of the session:** students leave able to compute pricing power and sell-through for a brand or category and argue, using the figures alone, which of anchoring, the winner's curse, or the reserve price the data most clearly supports.

Before class

- Register your own sandbox account and run Query 1 (pricing power) and Query 2 (sell-through) for a known brand end to end, so you have real, known-good numbers on screen.
- Prepare or print the short handout summarizing anchoring, the winner's curse, and reserve price and sell-through, for reference during the small-group exercise.
- Open the coverage browser on your chosen brand beforehand; confirm the exact designer field spelling you will filter on, since spelling matters for an exact match.
- Decide which brand you will use for the guided demo and have a backup brand ready in case the first returns too few sold lots to make a pattern legible.
- Optional: skim Module 9 (machine learning on auction data) and Module 13 (data ethics, quality, and coverage bias) so you can draw the "connections to other modules" links live and set up the recency caveat before it recurs.

Timed agenda with cues

Time	Segment	What to do	Watch for
0 to 15	Introduce the three ideas	Preview anchoring (the estimate), the winner's curse (competitive bidding), and the reserve price (the mechanism behind an unsold lot). Preview pricing power and sell-through as the two measures students will compute.	Students treating this as three unrelated topics rather than three predictions the same data can test. Frame it as one testable question from the start.

Time	Segment	What to do	Watch for
15 to 25	Sandbox orientation	Students register and open a data table together. Confirm they can locate designer, item_title, sale_date, usd_price_decimal, sale_estimates_high_usd_price, status, and vendor in the data dictionary.	Registration email typos. Have a backup shared account ready in case one student cannot get in.
25 to 45	Guided demo, pricing power	Run Query 1 live for your chosen brand and read the result aloud. Discuss what a value above 1.0 implies about the estimate as an anchor.	Students jumping straight to "anchoring confirmed" from a single ratio. Hold that reaction for the winner's curse discussion in the same query.
45 to 60	Guided demo, sell-through	Run Query 2 for the same brand. Explain the reserve price as the seller's floor and that an unsold lot is retained and marked unsold, not discarded.	Students reading a low sell-through as pure weak demand without considering consignment quality.
60 to 75	Small-group exercise	Each group selects a different category or brand, computes both measures, and prepares a short argument for anchoring, the winner's curse, or neither.	Groups that pick a brand or category with very few rows. Nudge them to check the sold-lot count first.
75 to 85	Class discussion	Groups report their findings. The class debates where the textbook predictions hold and where the data complicates them.	Groups asserting a conclusion without naming an alternative explanation. Push for at least one competing account per group.
85 to 90	Wrap-up and homework	Restate the one-sentence takeaway and hand out the homework.	Leave 2 minutes for the homework logistics, not zero.

Guidance for the discussion questions

Use these as the "what to listen for" behind each question in the module. They are talking points, not a graded key.

1. **Distinguishing anchoring, the winner's curse, and a conservative estimate.** Listen for: anchoring alone predicts a shift toward the estimate, not necessarily a ratio consistently above it; a winner's curse effect should show up more clearly in lots with many competing bidders, so segmenting by expected bidder interest is one way to probe it; a deliberately conservative in-house estimate is essentially unfalsifiable from pricing power alone without a second, comparably built dataset. Push students to admit that a single ratio cannot cleanly separate all three.
2. **The reserve price as a rational, protective mechanism.** Listen for: an unsold lot means the consignor's floor was not met, which protects the seller from a forced sale at a loss. The house forgoing a commission on that lot is the cost of that protection, not evidence the auction mechanism failed.
3. **Separating demand from consignment quality in sell-through.** Listen for: students should propose something like bidder or bid count per lot, condition report detail, or comparing sell-through against the pre-sale estimate itself, since sell-through alone cannot tell you whether weak demand or weak consignment quality is driving a low figure.
4. **Common-value framing versus a luxury saleroom.** Listen for: the classic winner's curse assumes one true value under shared uncertainty, which fits speculative or investment-grade lots reasonably well but poorly describes taste-driven purchases, where private value legitimately varies across bidders; the strict prediction is at best a partial fit for luxury goods.

5. **Incentives behind a deliberately high estimate.** Listen for: a high estimate can build prestige and draw both bidders and future consignors, and it would show up in the data as pricing power sitting comfortably below 1.0 on average even for lots that ultimately see strong bidding.

6. **Why a single quarter's sell-through should be read cautiously.** Listen for: the newest quarters are still being ingested, so a dip could reflect missing rows rather than a real change in demand. Ground any claim in the stable, longer-run pattern rather than the most recent bars.

7. **What no anchoring effect would look like, and whether it is distinguishable from an accurate estimate.** Listen for: pricing power hovering near 1.0 with no systematic skew is consistent with either an unbiased, accurate estimate or the complete absence of an anchoring effect. The two are observationally similar from pricing power alone, which is the core limitation students should name.

8. **Reserve price economics across undifferentiated versus iconic categories.** Listen for: in an undifferentiated category, a reserve mainly protects against a soft market for substitutable goods; for a widely recognized, singular item, the reserve also protects the seller's expectation of scarcity value and a failed sale carries a reputational cost for the item, which can justify setting the reserve closer to, or above, the low estimate.

Teaching notes

- **Most common misconception:** students treat pricing power above 1.0 as automatic proof of anchoring or the winner's curse, without considering a conservative house estimate as an alternative. Run Query 3 live to show the pattern across many brands, then ask what else besides bidder psychology could produce it.
- **Second misconception:** treating sell-through as a pure demand signal. Put the sell-through figure next to a note on consignment quality and ask what would have to be true of the lots themselves, not the bidders, for the same number to appear.
- **60 minute variant:** drop the small-group exercise and class discussion; shorten the opening to 10 minutes and keep both guided demos intact, since they carry the core content.
- **120 minute variant:** after the class discussion, have each group trade their argument with another group for a two-minute rebuttal, then run the pricing-power-by-house additional query as a class to preview coverage differences across auction houses.
- **If the sandbox is slow or blocked on the room network:** fall back to the pre-run results you captured in preparation, and have students run Query 1 through 3 themselves as part of the homework instead.

For the full lesson content, queries, and homework, see Module 11. Questions or a class API key: info@altfndata.com.