

Full name _____
SUNet ID (the part before @stanford.edu) _____
Section (e.g., TUES 9:30) _____

Please write legibly so the teaching team can log your attendance: if we can't read your name, we can't give you credit.

PSYCH 10 • Fall 2026 • Worksheet for Lecture 2: Sampling & measurement

The questions on this worksheet connect to what we are covering in lecture today, so please reflect on the lecture as you formulate your responses. You are welcome to work through them with the people sitting next to you, and members of the teaching team will be walking around to help. You will receive credit for completion so long as you make a good-faith effort to engage with these questions. Please hand it in to a member of the teaching team before you leave class.

Part 1 • Before and after the globe toss

We’re about to toss this globe around the room. If you catch it, look at where your right thumb landed, toss the globe on to someone else, and come to the front of the room: the corner on your left if your thumb was on water, the corner on your right if it was on land.

- a. Your prediction: what fraction of catches will be “water”?
- b. Name one thing that could make this process *biased*, meaning it would give us the wrong answer even after hundreds of tosses.

a. _____ b. _____

- c. Our class result: _____ water out of _____ catches. Is that closer to your prediction or to the real answer (about 71%)? Write one sentence on why our class result might differ from the real answer.

Part 2 • Kinds of variables

For each variable below, decide whether it is **quantitative** or **categorical**, then which of the four levels it is: **nominal**, **ordinal**, **interval**, or **ratio**. Say why in a few words.

- Bedtime last night (for example, 11:30 pm)
- Finishing place in a 5K (1st, 2nd, 3rd, ...)
- Course number (PSYCH 10, PSYCH 250)
- Earthquake magnitude (for example, 4.5)
- Birth year

	Quantitative or categorical?	Nominal, ordinal, interval, or ratio?	Why (a few words)
1			
2			
3			
4			
5			

Suppose the class survey from earlier recorded chronotype as 1 = lark, 2 = owl, and a friend averages the column and gets 1.6. “So the class is more owl than lark,” they say. **True or false?** Justify your answer in one or two sentences, using what the numbers *mean*. Would your answer change if the survey had also offered 3 = neither?

Part 3 · A surprising survey result

Suppose a campus-wide survey run by *The Stanford Daily* found **far fewer first-generation students than the admissions office reports**.

- a. List **three different processes** that could have produced this result. Make them different from one another, not variations on one explanation.
- b. Circle the one you find most plausible.
- c. Pick one of the others. What data, existing or new, would help you tell that process apart from the one you circled?

1. _____

2. _____

3. _____

c. _____

What is something new you learned today?
