



Login your clickers & NO calculators

Have out:

- 1) pg. 17 - 19 to correct
- 2) Second half of the clicker questions

Answer the second half of the clicker questions, enter your answers, and work on the quiz review.

Quiz review is on the BROWN TABLE

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Mar 8-7:20 AM

### Census vs. Sample

- In a census, measurements or observations are obtained from the entire population (uncommon and often impractical).
- In a sample, measurements or observations are obtained from part of the population (common).

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### Observational Studies and Experiments

- Observational Study – Measurements are obtained in a way that does not change the response or the variable being measured. (No *treatment* is applied.)
- Experiment – A *treatment* is applied in order to observe its effect on the variable being measured.

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## Experiment

- Used to determine the effect of a treatment.
- Experimental design needs to control for other possible causes of the effect.
- Placebo effect.
- Lurking variables.
- To minimize these *confounds*, create one or more *control groups* that receive no treatment.

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## Experiment Designs

- Blocking
- A *block* is a group of individuals with some common characteristic that might affect the treatment.
- A *randomized block design* randomly assigns each block member to a treatment.
- Used to control suspected lurking variables.
- Randomization – A random process is used to assign individuals to a treatment group or to a control group.

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## Experiment Designs

- Double-Blinding – minimizes the unintentional transfer of bias between researcher and subject.

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## Surveys

- Collecting data from respondents by asking them questions.
- Survey Pitfalls
- Nonresponse → undercoverage of population.
  - Truthfulness – respondents sometimes lie.
  - Faulty recall of respondent
  - Hidden bias – due to poor question wording.
  - Vague wording – “sometimes”, “often”, “seldom”
  - Interviewer influence – who is asking the questions and in what manner.
  - Voluntary response – relatively interested individuals are more likely to participate.

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- ① 1.3 Vocab
- ② Portfolio
- ③ Quiz  
Tomorrow

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