

Capstone Statistics Project: Design, Collect, Analyze, Present

Name: _____ Date: _____

LEARNING OBJECTIVE

The student will design an original survey question, collect real data, fully analyze it using this quarter's statistical tools, and present findings.

MATERIALS NEEDED

- paper
- pencil
- graph paper
- ruler
- calculator
- poster board or large paper
- colored pencils

HANDS-ON ACTIVITY

1. Write one original survey question with 4-6 possible categorical or numeric answer choices (e.g., 'How many hours of sleep did you get last night?').
2. Survey at least 10 people (family, neighbors, or classmates in person, by phone, or by message) and record their responses in a table.
3. Calculate the mean, median, mode, and range if numeric, or the frequency and percentage of each category if categorical.
4. Create one data display on poster board (your choice: bar graph, histogram, or box plot) to visually present your findings, using ruler and colored pencils for accuracy.
5. Write a short capstone summary paragraph explaining your question, your key findings, and one real-world conclusion or recommendation based on the data.

QUESTIONS

1. What was your survey question, and how many people did you survey?

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2. What statistical measures did you calculate, and what were the results?
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3. What is the most interesting or surprising pattern your data revealed?

4. Reflecting on this quarter, how did learning to collect and analyze real data change the way you think about statistics compared to just solving textbook problems?
