

# Quantitative Data Analysis Prompts

Use the following prompts to encourage quantitative reasoning.

## Research Question

- What kind of question are you asking?
- Can the question be answered with statistics?
- What kind of data will help you answer it?
- What kinds of statistical thinking will help you analyze your research?

## Sampling

- What is the population the data comes from?
- Is the sample random?
- Can you get a random sample?
- What does it mean if the sample is not random?

## Central Tendency

- Would it make sense to look at the mean, median, or mode of the data?
- How do you calculate the numbers?
- Is there one central tendency or more than one?
- What can you learn, if anything, from the mean, median, or mode?

## Range of Data

- Is there a normal distribution?
- Are there outliers? What do they mean?
- What is the standard deviation?

## Probability

- How likely is it that the event you predict will happen?
- What evidence supports your prediction?
- What are the odds of your prediction?
- Could you predict more accurately with more data? Is that feasible?