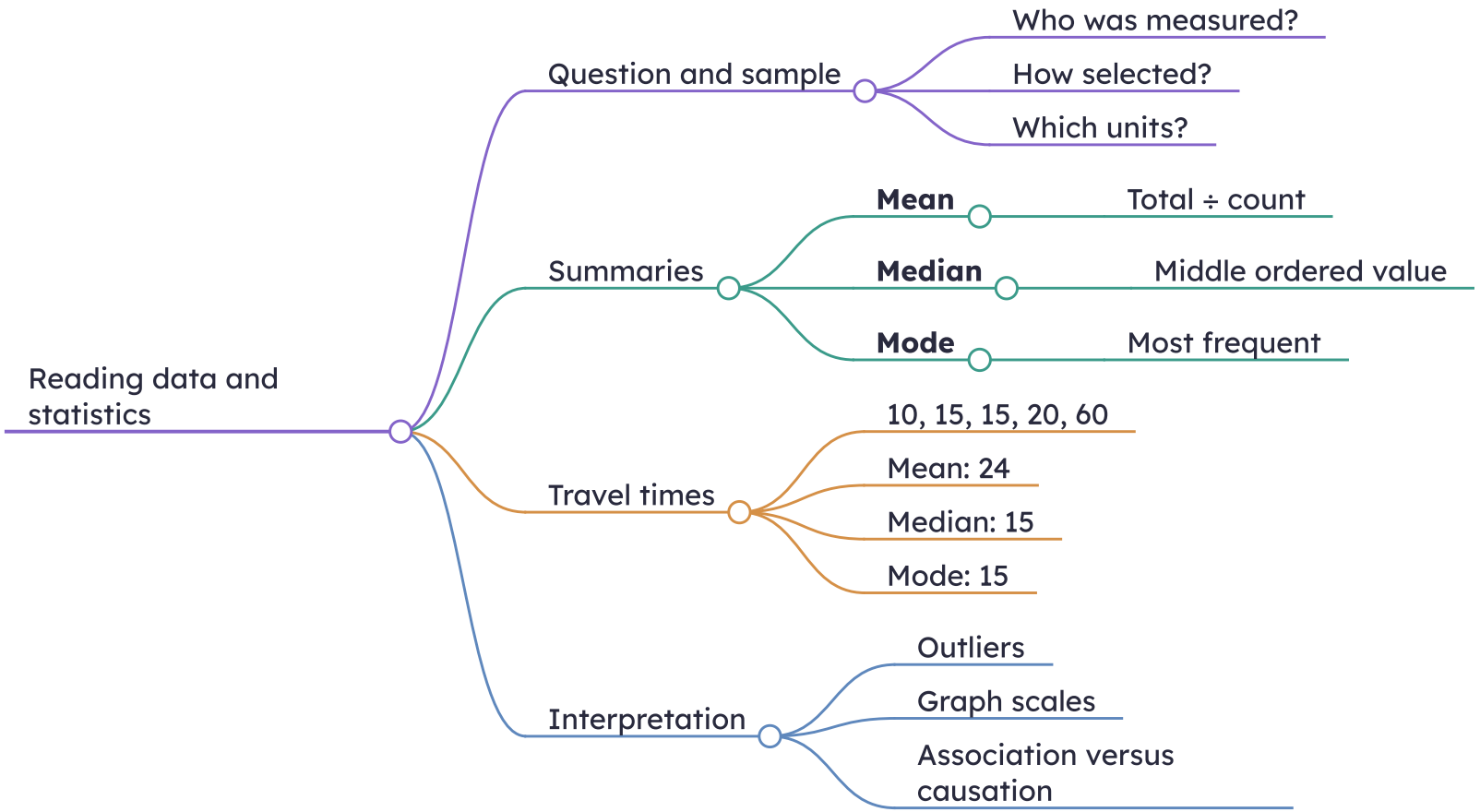
Reading data and statistics

Choose summaries after understanding the question and how the data were collected.



Read one branch at a time. Then cover the details and explain them in your own words.

Understand the topic

The mean is the total divided by the number of values. The median is the middle value after ordering, and the mode is the most frequent value. Extreme observations can strongly affect the mean. Sampling and measurement affect conclusions; graph scales can also shape impressions.

How the map is organized

Move from the question and sample to summaries and interpretation. Keep limitations alongside the calculation.

> **Watch out for this**
> Association does not by itself establish causation. Consider other factors and the study design.

Try it yourself

Use travel times of 10, 15, 15, 20, and 60 minutes. Find the mean, median, and mode, then explain which best describes a typical journey in this small group.

Two questions to answer

What is the median of these times?

The third value in the ordered list is 15.

Why is the mean higher here?

The high observation influences the mean more strongly than the median.

Sources

openstax.org
https://openstax.org/books/introductory-statistics-2e/pages/2-5-measures-of-the-center-of-the-data

Original practice material compiled by Studera.ai. Explore at studera.ai/en/resources/mind-map-examples.