Comparing Data Distributions

Today's Standard

7.SP.B3 - Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.

Cues	Notes
Mean	Mean: The average of a set of numbers.
Mean Absolute Deviation (MAD)	MAD: The average distance between each data point and the mean.
Overlap	Overlap: The extent to which two distributions share common values.
Variability	Variability: How spread out the data points are in a distribution.
Dot Plot	Dot Plot: A type of graph that shows individual data points.
Significance	Significance: The importance of a difference between data sets, often influenced by variability.

Summary

This standard teaches students to compare data distributions by assessing overlaps and measuring differences between centers relative to variability. Understanding these concepts is crucial for deeper statistical analysis.