Data Analysis

Quantitative number numerical → Continuous can be split
└→ Discrete countable values

Categorical type group / set

└→ Ordinal values that are ranked

└→ Nominal " " aren't "

Measures of Center ideas on average + visuals

Measures of Spread ideas on how subjects differ

Standard deviation → spread of a group of numbers for mean

Variance → average degree to which each point differ

Mode → value that appears more often

Interquartile range → spread of data

→ Spread / Shape / Center / Outliers

Center → mean, median, mode

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    ↳ not most accurate, contains decimals.

Median → middle value

Notation   math language

$$2 \quad 3 \quad 4 \quad 7 \,|\, 8 \quad 8 \quad 12 \quad 15$$

Column → random variable → UpperCase letter X set of values

    observed variable → LowerCase letter x_n one value

Sigma $\displaystyle\sum_{i=1}^{n} x_i$

$$8.1667 \qquad\qquad 2 \quad 5 \quad \underline{6 \quad 7 \,|\, 9 \quad 10} \quad 11 \quad 13$$

Mean $(\bar{x}) = \dfrac{1}{n} \displaystyle\sum_{i=1}^{n} x_i$

8.1667   5.5   10.5

1.4081428   4.1667   1, 1, 2, 4, 4 | 5, 10, 10, 10, 12

3.774228   4.1667   23.55