What measurement level?

Variable
data

Categorical ABC
Labels, making groups, distinct categories

Nominal
Categories are equal (= and ≠)

Ordinal
There is an order to the categories (> and <)

Continuous 123
Measured, scale, ranges, values

Ratio
*There is an absolute 0 point (* and /)*

Interval
Equal distance between the values (+ and -)

Which chart to use?

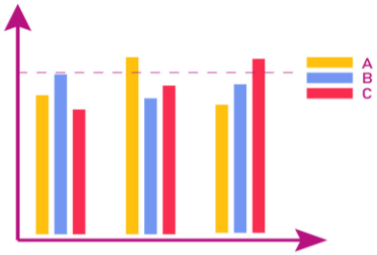
Variable
data

Categorical ABC
Labels, making groups, distinct categories

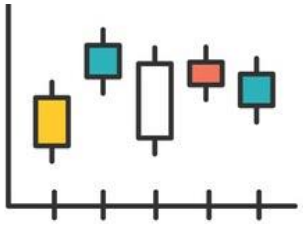
Continuous 123
Measured, scale, ranges, values

1 variable
Bar chart or pie chart

2 variables
Clustered or stacked bar chart



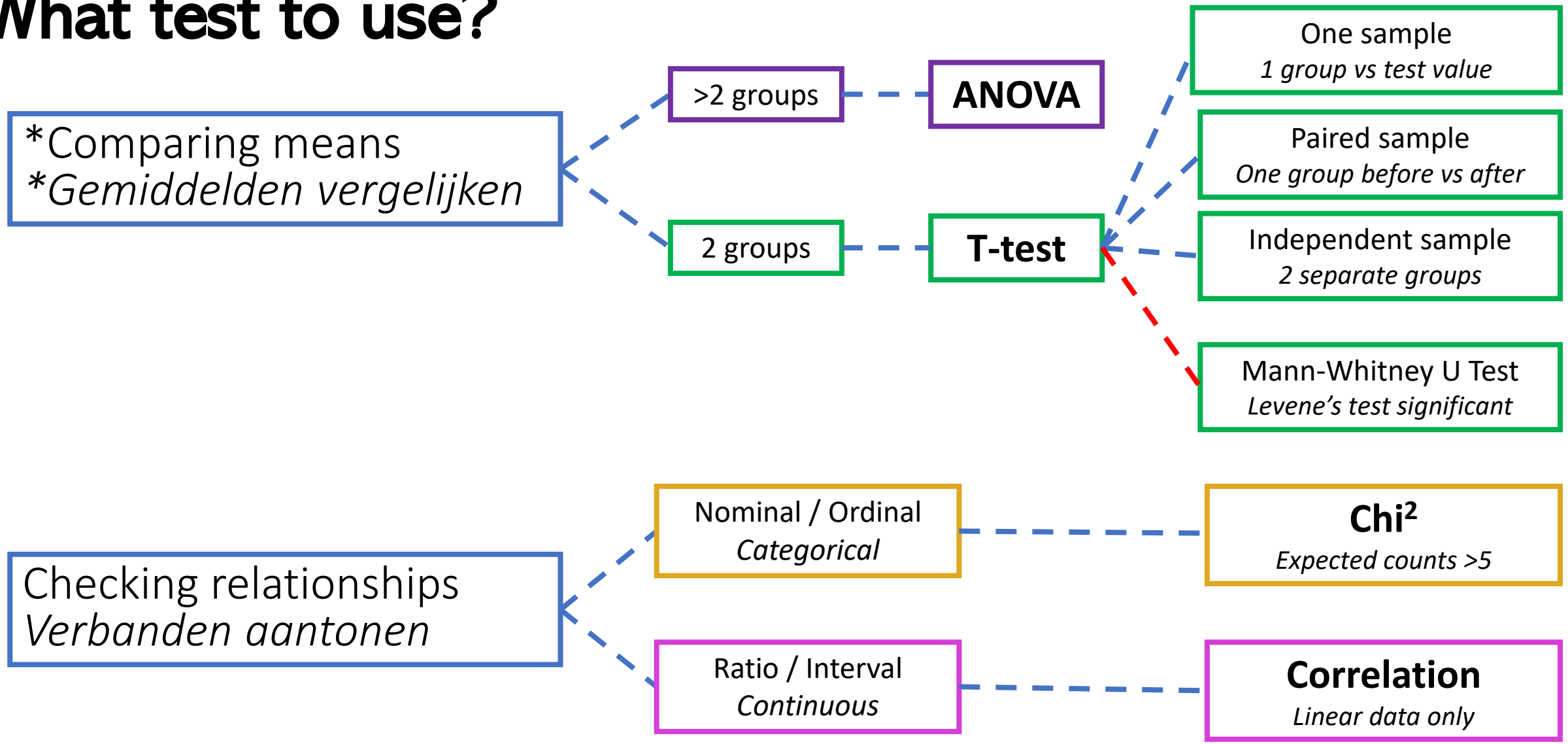
1 of each
Various options: Bar chart, error bar plot, box chart



1 variable
Histogram

2 variables
Scatterplot or line graph (over time)

What test to use?



*When comparing means, you always have to have one variable as your grouping or factor variable (to define groups), which is thus measured at nominal or ordinal level. The other (test-) variable is measured at either interval or ratio level.

Unequal variance and/or post-hoc?