DATA ANALYSIS

It really is more exciting than this title

Data Classification

- Different types of questions yield different types of data

- The type of data you have will determine the type of tests you can run.

  - Nominal (Dichotomous/Categorical)
  - Ordinal
  - Interval

POP QUIZ!!!

Q1 - How old are you? Enter your age here [ ]

Q2 – Which of the following best describes your gender?

[] Male

[] Female

[] I don't want to say

Q3 –Please rate your level of experience with program evaluation

[] No experience

[] Beginner

[] Intermediate

[] Expert

Extra Credit Question

Please rate how much you agree or disagree with the following statements:

I like science.

[] Strongly agree
[] Agree
[] Disagree
[] Strongly disagree

Parametric versus non-parametric statistics

- Are your data normally distributed?
- What is your sample size?
- Do you have adequate statistical power?

Descriptive statistics

- Mean – sum of values divided by the n
- Median – the middle value in a list of numbers
- Mode – the value that occurs most often
- Frequency – how often a value was chosen
- Cross tabulations – frequencies divided into categories

Inferential Statistics

- Chi-Squares
- Correlations (Pearson, Spearman,)
- T-tests (Wilcoxon Signed Rank Test/ Mann-Whitney U Test)
- ANOVA (Kruskal-Wallace test)
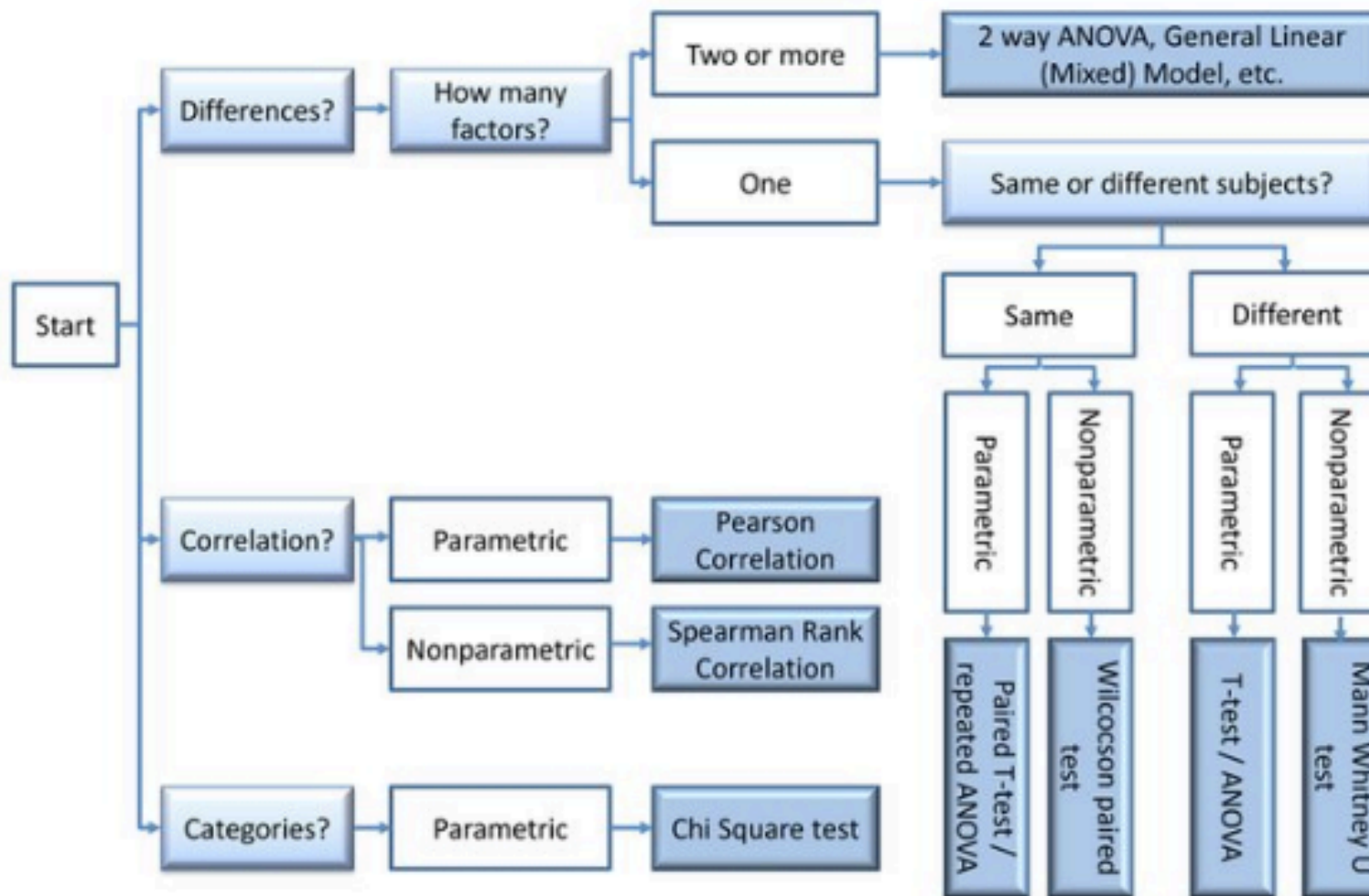
Key concepts

- **Statistical power** - the likelihood that a study will detect an effect when there is an effect there to be detected

- **Significance** - the likelihood that the result is not due to chance (p is less than or equal to .05, .01, .001)

- **Effect Size –** the strength of the relationship between two variables