JIPMER Potential topics

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Crohnbach's Alpha

- used to estimate reliability or internal consistency of a questionnaire
- Values ranges- 0-1

Kappa statistics

- Used to measure the inter observer agreement(eg- X ray by two observers)

- Values >0.75- excellent agreement
- Values 0.4-0.75- intermediate to good agreement
- <0.4- poor agreement

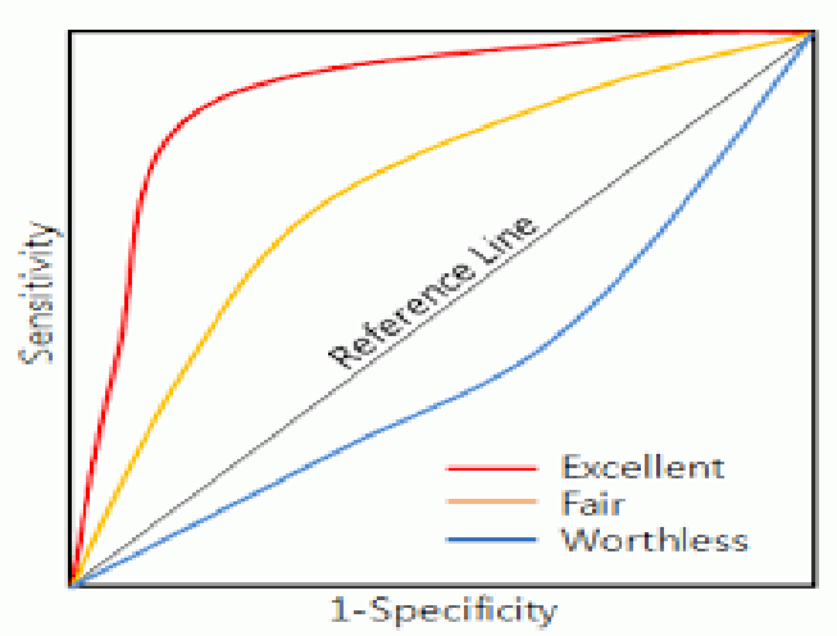
Likelihood ratio (LR)

- measures diagnostic accuracy
- Positive LR $\frac{\text{sensitivity}}{\text{1- specificity}}$

- Negative LR $\frac{\text{1- sensitivity}}{\text{specificity}}$

Receiver operating characteristic (ROC) curve

- Graphical display of validity of test
- Plotted between sensitivity and 1- specificity
- Maximum area under the curve is 1



Bland Altman analysis

- Graphical method to compare two quantitative measurement techniques
- Plotted between mean of two measures and difference between two measures
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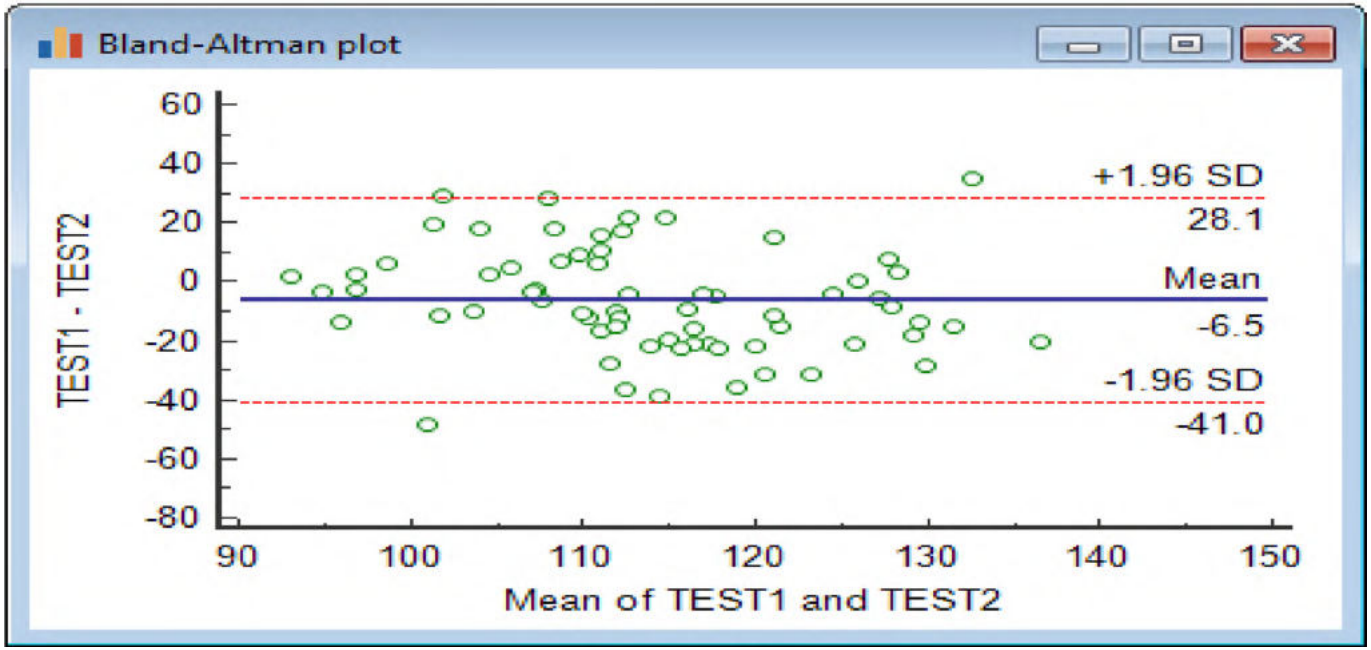


Serial testing of screening test

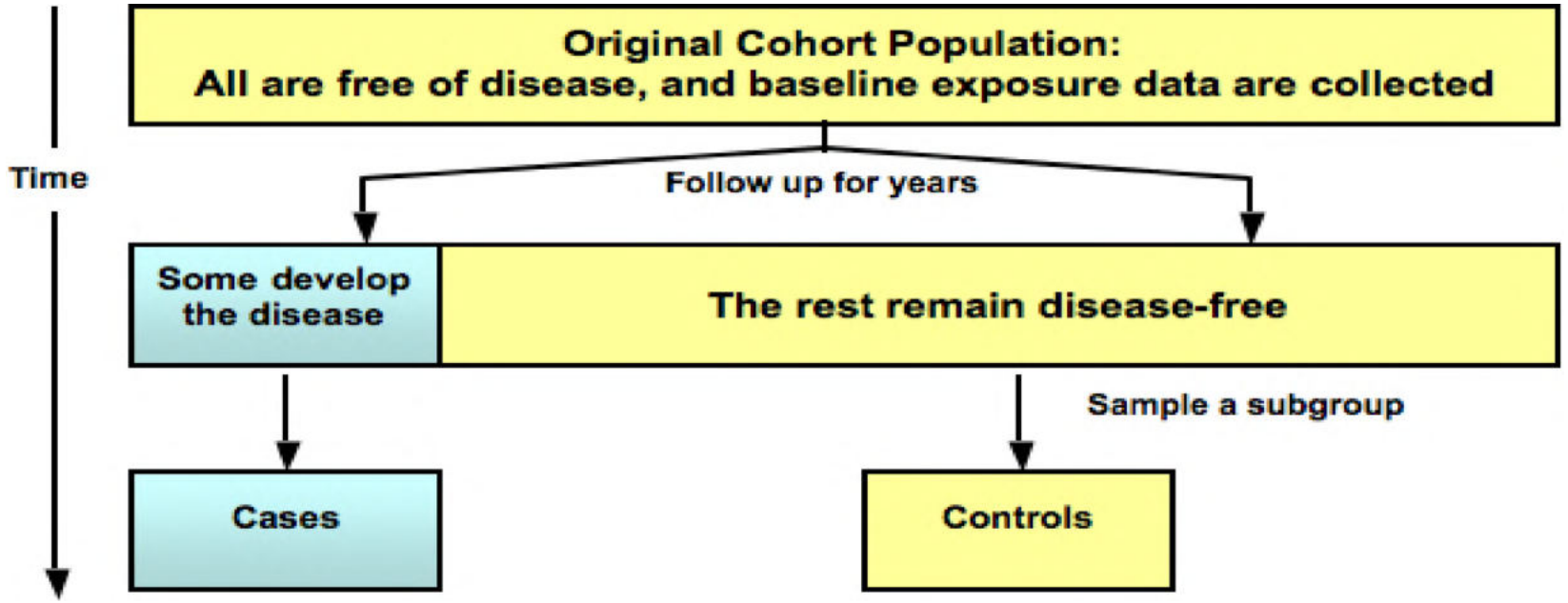
- One test first if positive followed by second test
- Decrease in sensitivity and increase in specificity

Parallel testing of screening test

- Increase in sensitivity and decrease in specificity

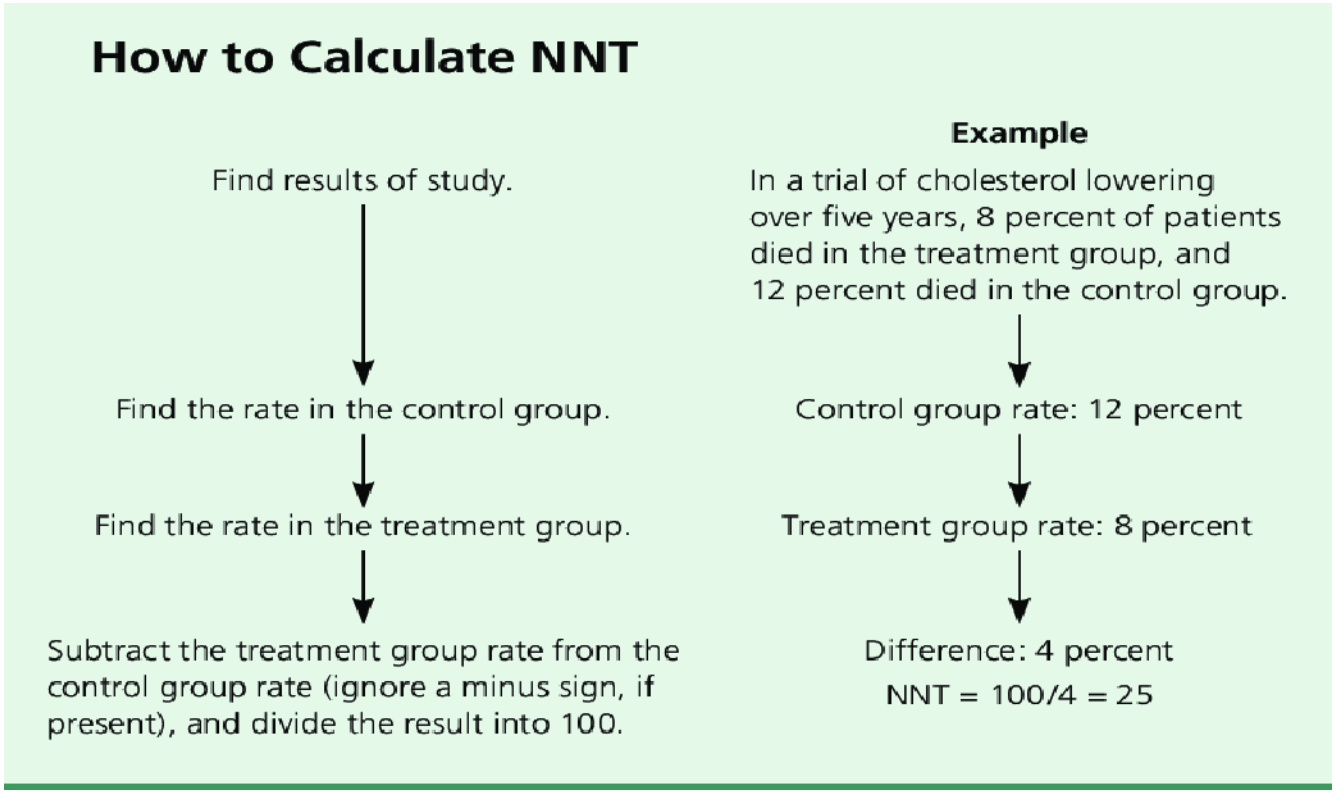
Nested case control study

- It is a prospective study

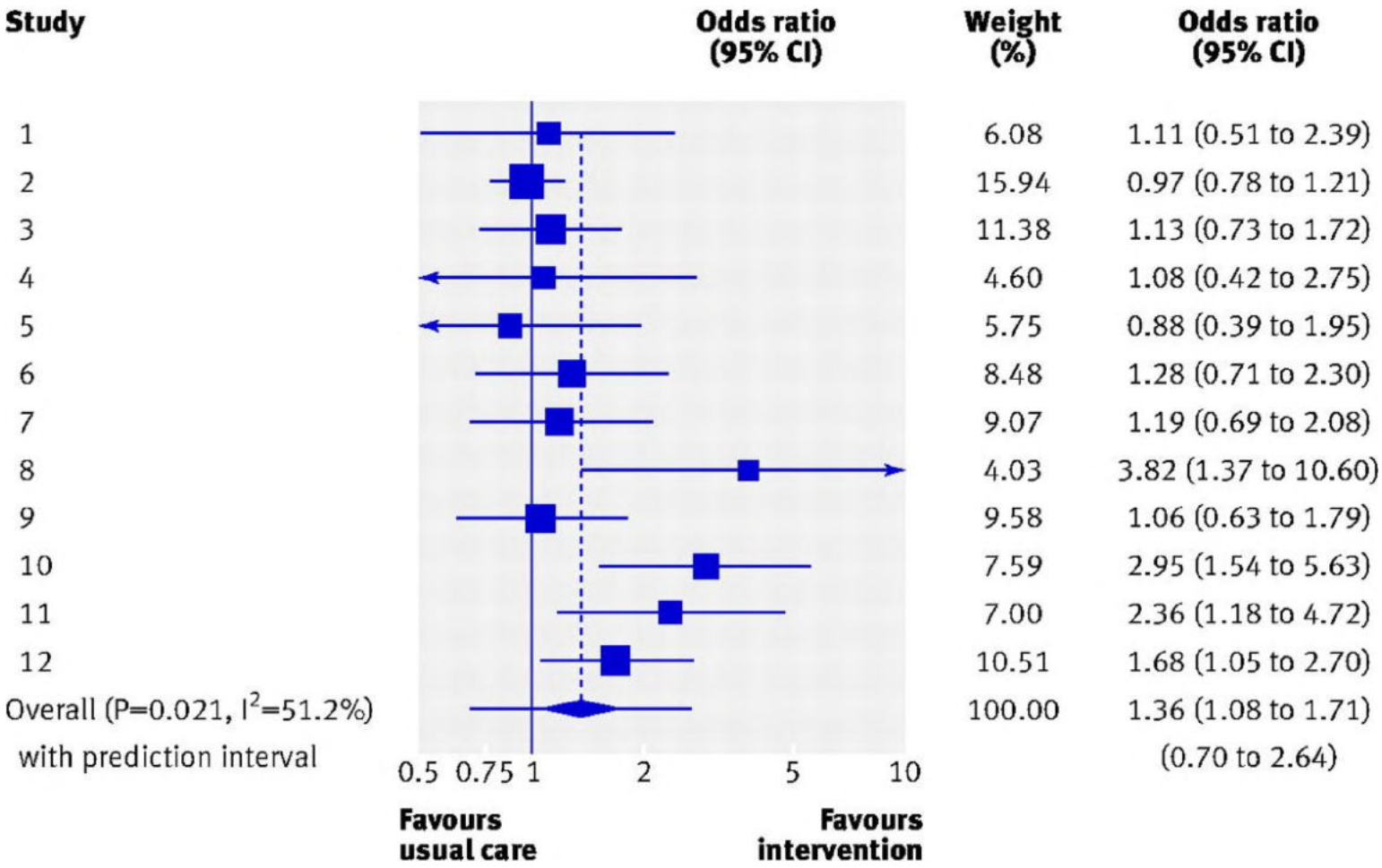


Number needed to treat in RCT

- It is number of patients needed to be treated to prevent one bad outcome

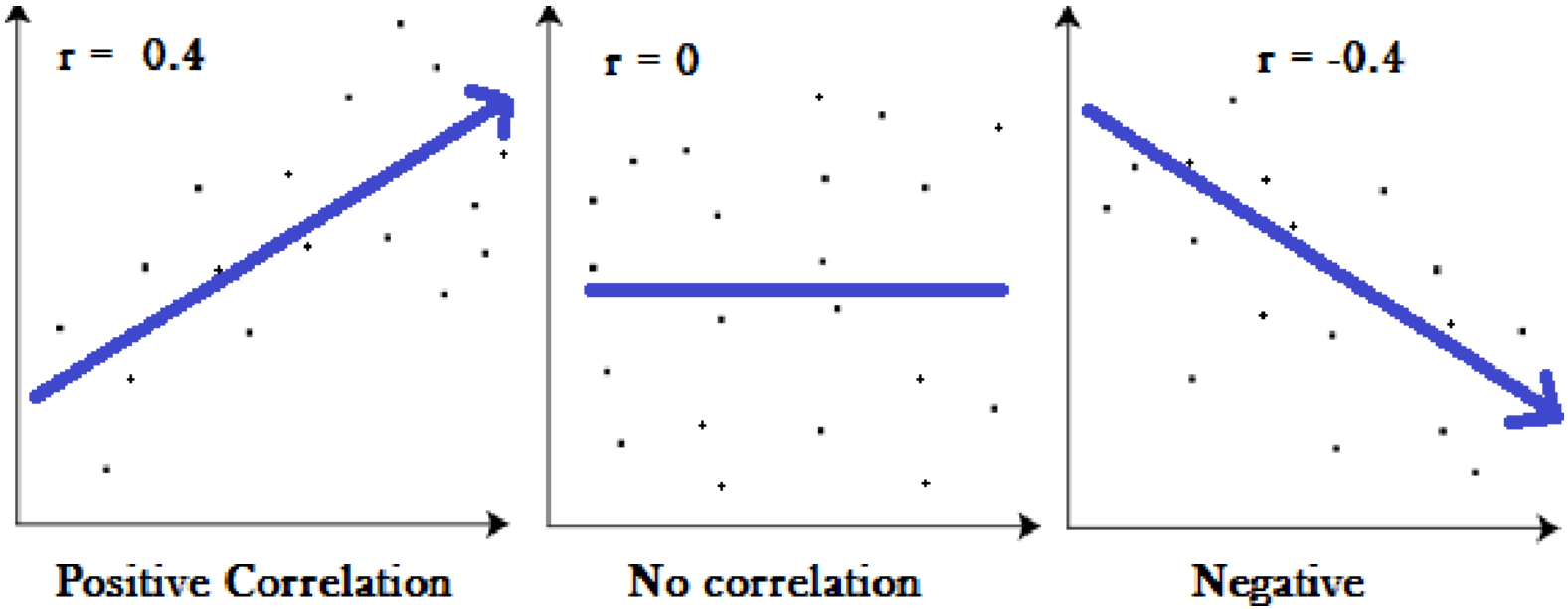


Forrest plot in meta analysis

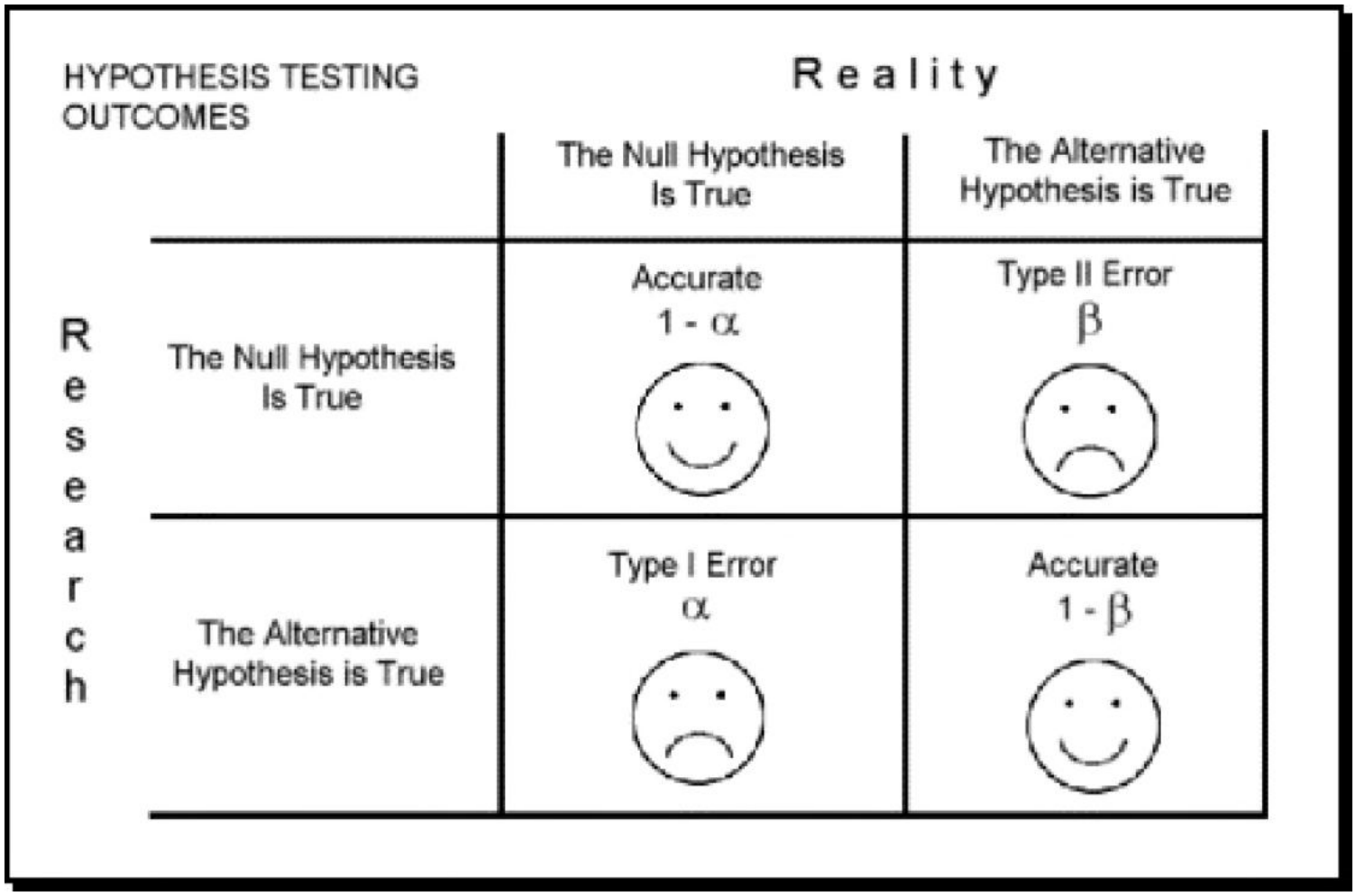


Correlation coefficient (r)

- Strength and direction of relationship between 2 variables
- r= -1 to +1



Type 1 and type 2 error



Kolmorgov smirnov test

- Used to check the normal distribution of the test

Likert scale (ordinal data)