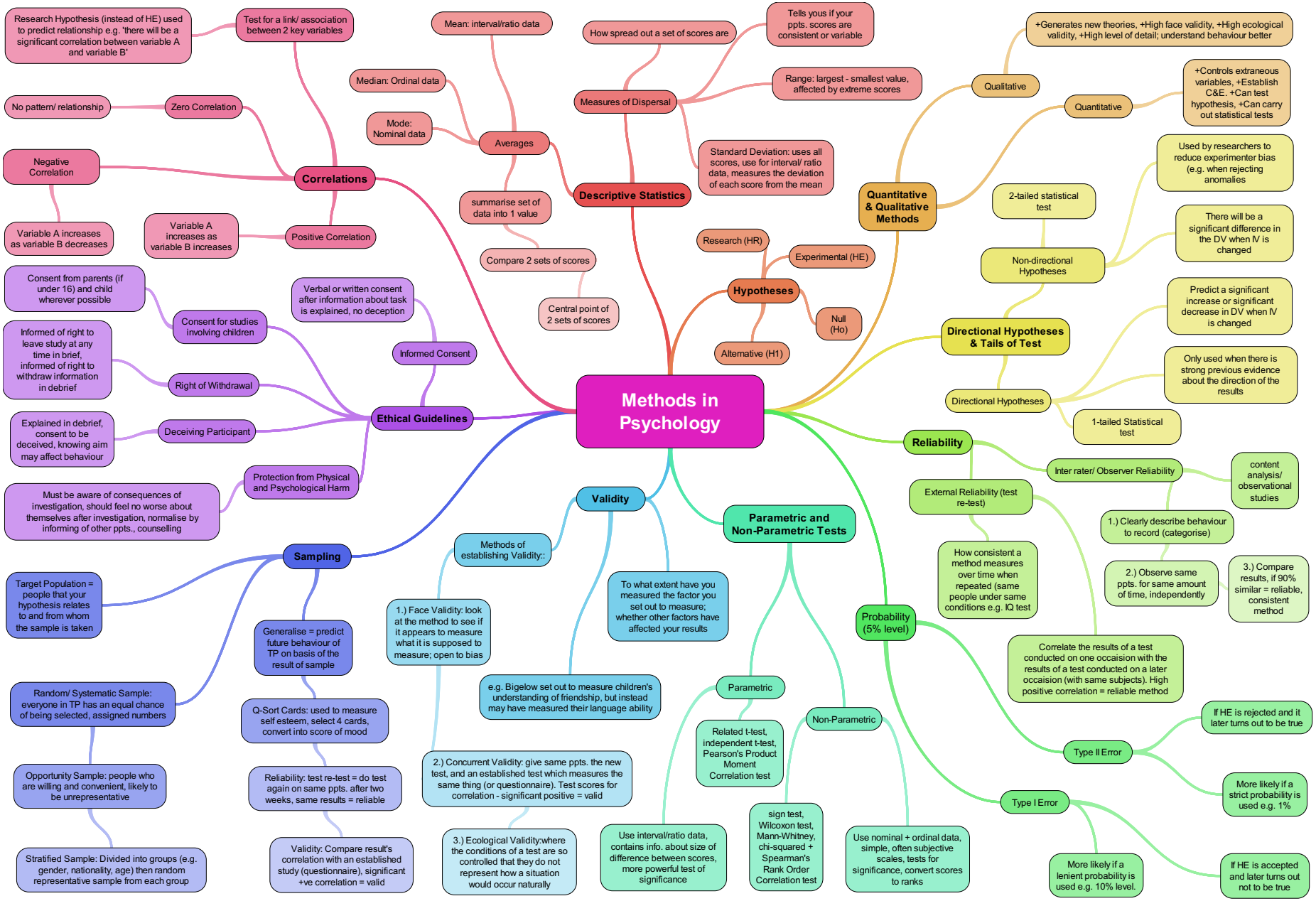
Methods in Psychology
Correlations
Research Hypothesis (instead of HE) used to predict relationship e.g. 'there will be a significant correlation between variable A and variable B'
Test for a link/ association between 2 key variables
No pattern/ relationship
Zero Correlation
Negative Correlation
Variable A increases as variable B decreases
Variable A increases as variable B increases
Positive Correlation
Descriptive Statistics
Averages
Mean: interval/ratio data
Median: Ordinal data
Mode: Nominal data
summarise set of data into 1 value
Compare 2 sets of scores
Central point of 2 sets of scores
Measures of Dispersal
How spread out a set of scores are
Tells yous if your ppts. scores are consistent or variable
Range: largest - smallest value, affected by extreme scores
Standard Deviation: uses all scores, use for interval/ ratio data, measures the deviation of each score from the mean
Hypotheses
Research (HR)
Experimental (HE)
Null (Ho)
Alternative (H1)
Quantitative & Qualitative Methods
Qualitative
+Generates new theories, +High face validity, +High ecological validity, +High level of detail; understand behaviour better
Quantitative
+Controls extraneous variables, +Establish C&E. +Can test hypothesis, +Can carry out statistical tests
Directional Hypotheses & Tails of Test
2-tailed statistical test
Non-directional Hypotheses
Used by researchers to reduce experimenter bias (e.g. when rejecting anomalies
There will be a significant difference in the DV when IV is changed
Directional Hypotheses
Predict a significant increase or significant decrease in DV when IV is changed
Only used when there is strong previous evidence about the direction of the results
1-tailed Statistical test
Ethical Guidelines
Informed Consent
Verbal or written consent after information about task is explained, no deception
Consent for studies involving children
Consent from parents (if under 16) and child wherever possible
Right of Withdrawal
Informed of right to leave study at any time in brief, informed of right to withdraw information in debrief
Deceiving Participant
Explained in debrief, consent to be deceived, knowing aim may affect behaviour
Protection from Physical and Psychological Harm
Must be aware of consequences of investigation, should feel no worse about themselves after investigation, normalise by informing of other ppts., counselling
Sampling
Target Population = people that your hypothesis relates to and from whom the sample is taken
Generalise = predict future behaviour of TP on basis of the result of sample
Random/ Systematic Sample: everyone in TP has an equal chance of being selected, assigned numbers
Q-Sort Cards: used to measure self esteem, select 4 cards, convert into score of mood
Opportunity Sample: people who are willing and convenient, likely to be unrepresentative
Reliability: test re-test = do test again on same ppts. after two weeks, same results = reliable
Stratified Sample: Divided into groups (e.g. gender, nationality, age) then random representative sample from each group
Validity: Compare result's correlation with an established study (questionnaire), significant +ve correlation = valid
Validity
Methods of establishing Validity::
1.) Face Validity: look at the method to see if it appears to measure what it is supposed to measure; open to bias
2.) Concurrent Validity: give same ppts. the new test, and an established test which measures the same thing (or questionnaire). Test scores for correlation - significant positive = valid
3.) Ecological Validity:where the conditions of a test are so controlled that they do not represent how a situation would occur naturally
To what extent have you measured the factor you set out to measure; whether other factors have affected your results
e.g. Bigelow set out to measure children's understanding of friendship, but instead may have measured their language ability
Parametric and Non-Parametric Tests
Parametric
Related t-test, independent t-test, Pearson's Product Moment Correlation test
Use interval/ratio data, contains info. about size of difference between scores, more powerful test of significance
Non-Parametric
sign test, Wilcoxon test, Mann-Whitney, chi-squared + Spearman's Rank Order Correlation test
Use nominal + ordinal data, simple, often subjective scales, tests for significance, convert scores to ranks
Reliability
Inter rater/ Observer Reliability
content analysis/ observational studies
External Reliability (test re-test)
1.) Clearly describe behaviour to record (categorise)
2.) Observe same ppts. for same amount of time, independently
3.) Compare results, if 90% similar = reliable, consistent method
How consistent a method measures over time when repeated (same people under same conditions e.g. IQ test
Correlate the results of a test conducted on one occaision with the results of a test conducted on a later occaision (with same subjects). High positive correlation = reliable method
Probability (5% level)
Type II Error
If HE is rejected and it later turns out to be true
More likely if a strict probability is used e.g. 1%
Type I Error
More likely if a lenient probability is used e.g. 10% level.
If HE is accepted and later turns out not to be true