**Research Methods Checklist**

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| Content | RAG | | RAG | | RAG |
| * **The Scientific process -** | | | | | |
| * **AIMS:** difference between an aim and a hypothesis |  | |  | |  |
| * **HYPOTHESIS:**   + Directional & Non-Directional Hypothesis   + Null Hypothesis |  | |  | |  |
| * **VARIABLES**   + Independent Variable   + Dependent Variable   + Operationalisation of variables   + Extraneous Variables   + Confounding Variables |  | |  | |  |
| * **SAMPLING**   + Difference between population and sample, random, systematic, stratified, opportunity, volunteer   + Implications of sampling Inc. bias and generalisation |  | |  | |  |
| * **PILOT STUDY** |  | |  | |  |
| * **EXPERIMENTAL DESIGN**   + Repeated measures   + Independent measures   + Matched Pairs |  | |  | |  |
| * **CONTROL**   + Random allocation   + Counterbalancing   + Randomisations   + Standardisation |  | |  | |  |
| * **OBSERVATION DESIGN**   + Behavioural Categories   + Event sampling & Time sampling |  | |  | |  |
| * **QUESTIONNAIRE CONSTRUCTION**   + Open and closed questions   + Design of interviews |  | |  | |  |
| * **DEMAND CHARACTERISTICS**   + Investigator effects |  | |  | |  |
| * **ETHICS**   + Protection from harm   + Confidentiality & Privacy   + Anonymity   + Right to Withdraw   + Briefing & Debriefing   + Deception   + Informed Consent |  | |  | |  |
| * **PEER REVIEW:** The role and purpose |  | |  | |  |
| * **ECONOMY:** The impact of Psychological Research on the Economy |  | |  | |  |
| Content | RAG | | RAG | | RAG |
| * **RELIABILITY: across all methods of investigation.**    + Test-retest   + Inter-rater reliability   + Improving reliability |  | |  | |  |
| * **VALIDITY**   + Types of validity:   + Face validity   + Construct validity   + Ecological and temporal validity   + Assessment and improvement of validity |  | |  | |  |
| * **FEATURES OF SCIENCE**   + Objectivity and empiricism   + Reliability and falsifiability   + Theory construction   + Hypothesis testing   + Paradigms and paradigm shifts |  | |  | |  |
| * **REPORTING PSYCHOLOGICAL INVESTIGATIONS**   + Sections of a scientific report   + Abstract; introduction; methods; results; discussion; referencing |  | |  | |  |
| * **Research Methods -** | | | | | |
| * **EXPERIMENTAL METHODS:**    + Laboratory   + Field   + Natural   + Quasi |  | |  | |  |
| * **OBSERVATIONAL TECHNIQUES**   + Naturalistic   + Controlled   + Covert   + Overt   + Participant   + Non participant |  | |  | |  |
| * **SELF REPORT MEASURES**   + Questionnaires   + Interviews – structured   + Interviews - unstructured |  | |  | |  |
| * **CORRELATIONS**   + Analysis of the relationship between co variables   + Difference between correlations and experiments |  | |  | |  |
| * **Data handling and Analysis -** | | | | | |
| * **TYPES OF DATA:**   + Quantitative   + Qualitative analysis   + Primary data & secondary data   + Meta-Analysis |  | |  | |  |
| * **DESCRIPTIVE STATISTICS**   + Mean - calculate   + Median - calculate   + Mode - calculate   + Range - calculate   + Standard Deviation   + Percentages – calculate   + Positive correlations   + Negative correlations   + Zero correlations |  | |  | |  |
| * **PRESENTATION AND DISPLAY**   + Graphs   + Tables   + Scatter grams   + Bar charts |  | |  | |  |
| * **DISTRIBUTIONS**   + Normal   + Skewed   + Characteristics of normal and skewed |  | |  | |  |
| * **ANALYSIS AND INTERPRETATION OF CORRELATIONS**   + **Interpretation of Correlation coefficients** |  | |  | |  |
| * **LEVELS OF MEASUREMENT**   + **Nominal**   + **Ordinal**   + **Interval & Ratio** |  | |  | |  |
| * **CONTENT ANALYSIS & CODING**   + **Thematic analysis** |  | |  | |  |
| **- Inferential Statistics -** | | | | | |
| * **INTRO TO STATS**   + The Sign Test – Calculation |  |  | |  | |
| * **PROBABILITY AND SIGNIFICANCE TESTING**   + Use of significance tables   + Critical values in interpreting significance   + Type I and types II errors |  |  | |  | |
| * **FACTORS AFFECTING THE CHOICE OF TEST**   When to use the following tests:   * + Spearman’s Rho   + Pearson’s R   + Wilcoxon   + Mann-Whitney   + Related t-test   + Unrelated t-test   + Chi-Squared test |  |  | |  | |