**Research Methods Checklist**

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| Content | RAG | RAG | RAG |
| * **The Scientific process -**
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| * **AIMS:** difference between an aim and a hypothesis
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| * **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
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| * **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 -**
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| * **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
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