

Paper 1 Cognition and Behaviour: Research Methods

<u>NO</u>	<u>Topic</u>	<b>R</b>	<b>A</b>	<b>G</b>
1	Formulation of testable hypotheses. Null hypothesis and alternative hypothesis			
2	Types of variable: independent variable and dependent variable and operationalization of variables			
3	Types of variable; extraneous variable- The use of standardised procedures, instructions to participants, randomisation, allocation to conditions, counterbalancing and extraneous variables (including explaining the effect of extraneous variables and how to control for them)			
4	Designing research: quantitative and qualitative methods			
5	Designing research: interviews and questionnaires, + strengths and weaknesses of each research method and types of research for which they are suitable			
6	Designing research: observation studies (including categories of behaviour and interobserver reliability) + evaluation			
7	Designing research: case studies including strengths and weaknesses			
8	Laboratory experiments, field and natural experiments + strengths and weaknesses of each research method and types of research for which they are suitable			
9	Experimental designs: independent groups, repeated measures (dealing with order effects: counterbalancing), matched pairs, including strengths and weaknesses of each experimental design			
10	Sampling methods: target populations, samples and sampling methods and how to select samples using these methods: random, opportunity, systematic and stratified.			
11	Strengths and weaknesses of each sampling method			
13	Understanding principles of sampling as applied to scientific data			
14	Ethical considerations: knowledge and understanding of ethical issues in psychological research as outlined in the British Psychological Society guidelines and ways of dealing with each of these issues			
15	Correlation: an understanding of association between two variables and the use of scatter diagrams to show possible correlational relationships + strengths and weaknesses			
16	Reliability and validity: How research should be planned, taking into consideration the reliability and/or validity of: sampling methods, experimental designs and quantitative and qualitative methods			
17	Types of data: the difference between quantitative and qualitative & the difference between primary and secondary data			
18	Descriptive statistics: understand and calculate mean, median, mode and range			
19	Interpretation and display of quantitative data (frequency tables and diagrams, bar charts, histograms & scatter diagrams)			
20	Normal distribution: the characteristics of normal distribution			
21	Computation: recognise and use expression in decimal and standard form: use ratios, fractions and percentages, estimate results, find arithmetic means and use an appropriate number of significant figures			