Psychology Revision List

Research Methods Unit

Formulation of a testable hypothesis	Null & alternative hypothesis
Types of variables	Independent/dependent & extraneous
Sampling methods	Target populations, samples and sampling methods and how to select them using: • Random • Opportunity • Systematic • Stratified. Strengths & weaknesses of the sampling method. Understanding the principles of sampling as applied to scientific data.
Designing Research	Quantitative & qualitative methods: The experimental method (experimental designs including independent groups, repeated measures, matched pairs- strengths and weaknesses of each. Laboratory experiments Field and natural experiments. Interviews Questionnaires Case studies Observation studies (including categories of behaviour and interobserver reliability. Strengths & weaknesses of each research method and types of research which are suitable.
Correlation	An understanding of the relationship between co-variables and the use of scatter diagrams to show the relationship. Strengths & weaknesses of correlation.
Research procedures	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
Planning & conducting research	How research should be planned including, consideration of the reliability/validity of: *Sampling methods *Experimental designs *Quantitative & qualitative methods
Ethical considerations	Students should demonstrate knowledge and understanding of: • ethical issues in psychological research as outlined by the British Psychological Society. Ways of dealing with these issues.

Data Handling	
Quantitative & qualitative data	The difference between qualitative & quantitative
Primary & secondary data	The difference between primary & secondary data.
Computation	Recognise and use expressions in decimal and standard form: use ratios, fractions and percentages, estimate results, find arithmetic means and use an appropriate number of significant figures
Descriptive statistics	Understand and be able to calculate the mean, median, mode and range.
Interpret and display of quantitative data	Construct & interpret frequency tables and diagrams, bar charts, histograms and scatter diagrams for correlation
Normal distributions	The characteristics of normal distribution