

## Research Methods Key Terms

Key Term	Definition
Alternative hypothesis	States a relationship between variables, it is called alternative as it is an alternative to the null
Dependent variable (DV)	The variable the researcher measures
Hypothesis	Clear, precise, testable statement
Independent variable (IV)	The variable that is varied (changed) in the experiment
Null hypothesis	Statement of no relationship
Variable	Any 'thing' which can vary or change within an investigation
Extraneous variable (EV)	Any variable except the IV which could have an effect on the DV – they need to be controlled!
Randomisation	Using chance such as tossing a coin or picking names from a hat – to control for effects of bias when designing a study
Standardised procedures	Using exactly the same methods and instructions for all participants in a research study
Field experiment	Experiment which takes place in a natural setting
Lab experiment	Experiment which takes place in a controlled environment
Natural experiment	IV occurs naturally (e.g. age, ethnicity etc.) and therefore is not manipulated by the researcher
Qualitative method	Data expressed in words
Quantitative method	Data expressed in numbers
Counterbalancing	ABBA used in repeated measures design, half p's do condition A and then B, the others do B and then A
Experimental design	Different ways p's can be organised in relation to the conditions
Independent groups	2 groups, different p's in each
Matched pairs	2 groups, Pairs of p's matched in terms of variable relevant to the study e.g. IQ, age, gender, one of each pair takes part in a condition each
Repeated measures	1 group, all p's take part in both conditions
Order effects	In a repeated measures design, an EV arising from the order in which conditions are presented
Opportunity sample	Taking p's who happen to be there at the time
Random sample	Produced by using a random technique in which every member of the target population has an equal chance of being selected
Sample	A subset of the target population which aims to be representative of that population
Sampling method	Method used to produce a sample
Stratified sample	Selecting p's in a proportion to their frequency in the target population
Systematic sample	Selecting every nth person
Target population	Group that the researcher is interested in studying
British Psychological Society (BPS)	Code of conduct every professional psychologist in the UK has to follow
Ethical issue	Where there is conflict between the rights of p's to be safe and the goals of the research to produce valid data
Closed question	One that has a fixed range of responses e.g. yes / no
Interview	Interaction between interviewee and interviewer – usually done face to face
Open question	Respondents can provide their own answer rather than selecting from a list
Questionnaire	Set of written questions
Categories of behaviour	When a target behaviour is broken down into units than can be observed e.g. aggression into number of kicks
Inter observer reliability	Extent to which there is agreement between two or more observers involved in observations of a behaviour
Observation studies	Observer watches or listens to participants engaging in whatever behaviour is being studied
Correlation	Used to investigate the relationship or association between two variables called co variables

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Scatter diagram	Type of graph that represents the strength and direction of a relationship between co-variables in a correlation
Case study	An in-depth investigation of a single individual, group, institution or event
Reliability	Concerns the consistency of measurement
Validity	Concerns whether a result is true, valid research represents something that is real
Primary data	Information obtained first hand by the researcher
Qualitative data	Information expressed in words and not numbers
Quantitative data	Information expressed in numbers
Secondary data	Info gathered by someone other than the researcher before the current investigation
Descriptive statistics	Use of graphs, tables and summary statistics to identify trends
Mean	Mathematical average – add all numbers in a data set up and divide by the number of scores in the data set
Median	Middle value in a data set
Mode	Most common value in a data set
Range	Simple measure of dispersion in a set of data, lowest score is subtracted from the highest score
Bar chart	Type of graph in which the frequency of each variable is represented by the height of the bar
Frequency table	A table is a systematic way of representing data so it is organised in rows and columns
Histogram	A type of graph where the frequency of each category of continuous data is represented by the height of the bar
Normal distribution	A symmetrical spread of frequency data that forms a bell-shaped curve. The mean, median and mode are all the same point – the highest peak