Between-subjects / unrelated design
- Two different groups of participants – any one participant can **ONLY** belong to one group
  - E.g., age 18-24 **or** 25-32

Within-subjects / related design
- One group of participants that take part in **ALL** conditions within the study
  - E.g., all participants see circular **and** triangular warning signs

Independent variable
- The variable that is manipulated by the researcher – is assumed to have an effect on the dependent variable – 'cause'

Dependent variable
- The outcome measure or behaviour – assumed to be influenced by the independent variable – 'effect'

Confounding variable
- A variable that can influence the IV and the DV in a study, thus distorting the observed effect between two variables

***P* < .05 = significant –** hypothesis would be accepted
***P* > .05 = non-significant –** hypothesis would not be accepted OR null hypothesis would be accepted

Null hypothesis
- An assumption of no effect being observed – *this is always implicitly there*

Experimental / Study hypothesis
- A prediction about the difference that is likely to be observed (based on previous literature)

One-tailed hypothesis
- Making a statement about the direction of the difference expected
  - E.g., males will score significantly higher than females on a measure of alcohol consumption

Two-tailed hypothesis
- Expecting a difference but no statement of direction
  - E.g., there will be a difference in alcohol consumption levels between males and females

Statistical Tests

Between-subjects (unrelated) design
- Independent samples t-test

Within-subjects (related) design
- Paired samples t-test

For categorical data only
- Chi-square (for independence)

Non-experimental designs (correlational)
- Pearson's Product Moment Correlation

Ethics

Informed consent
Ensuring participants are aware of the nature of the study, what is expected of them and how long their participation will take

Debriefing
Fully explaining the purpose/aim of the research, gives participants a final chance to withdraw, remind about confidentiality of data

Deception
Deceiving or misleading participants re: the true nature or purpose of the study. Sometimes necessary to avoid demand characteristics, but debrief **must** be in place plus right to withdraw at end after information has been provided on true aims

Confidentiality
Ensuring participants personal information and any data collected is kept safe and confidential – not shared with any other person (outside of research team / unless for safety issues)

Anonymity
Ensuring all data is anonymous – storing consent forms separately from any data collected. Anonymous data is untraceable.

Four ethical principles

Competence
- Not providing services outside of expertise, maintaining skills, recognising needs for development.

Respect
- For dignity of Ps, privacy, confidentiality, consent. Consideration of issues of power.

Responsibility
- Accepting responsibility for what is within your power. Not abusing trust others place in you; managing potential power of influence. Duty towards others is paramount.

Integrity
- Being honest and accurate with actions and decisions. Setting self-interest to one side and being open to challenging one's own behaviour in a professional context.

Mean
Sum of values divided by number of data points

Mode
Most commonly occurring score

Median
Middle score once scores have been ranked in order

Floor effect – majority of scores are low.
Ceiling effect – majority of scores are high.

Qualitative

Interviews
A one-to-one structured discussion with a participant that aims to elicit in-depth textual/conversational data. Useful when topics are sensitive. Likely to elicit more in-depth content (longer 'speaking' time)

Focus groups
A research method that brings together a small group of people to answer questions in a moderated setting. The interviewer has a set of questions and prompts that can be used to garner discussion.