Experiments

Laboratory Experiments

- Provide the **highest level of control over variables** and are widely used in psychology.
- Psychology laboratory maybe the only place where some **sophisticated technical equipment** can be used and accurate measurements made.
- ‘Stroop effect’
- Just because an experiment has been carried out in a laboratory doesn’t mean it’s a laboratory experiment.
- Some experiments carried out in a lab so the setting alone is not a reliable indicator of the type of research.

**Advantages:**
- **Replicability of procedures:** repeated by other psychologists to validate results, easy to replicate; no need to wait.
- **Sophisticated measuring and recording equipment:** used easier; technical equipment sensitive to external conditions.
- **Control over variables:** easier to control potential confounding/extraneous variables; high levels of precision; identify cause-and-effect relationship as all variables but IV controlled.

**Disadvantages:**
- **Loss of validity:** high levels of control; artificial and different from real-life situations/complex human behaviour.
- **Demand Characteristics:** participants make sense of the research situation and adjust their behaviour; flaw results.
  - *Evaluation apprehension:* demonstrate concern over what experimenter will find out about them.
  - *Social desirability effects:* change their normal behaviour so they can be perceived more favourably.

**Ethical Issues**
- **Consent:** participants become overawed by environment become unable to withdraw, even if they wanted to.
- **Deception:** debrief participants about true nature of study and obtain their consent to use their data.
- **Use of animals:** offers greater opportunity for experimental control; must not be subjected to unnecessary suffering.

**Ecological Validity:** This term refers to **how well a study can be related to or reflects everyday, real life.** Studies with high ecological validity can be generalised beyond the setting they were carried out in, whereas studies low in ecological validity cannot. Sometimes this isn’t a concern (e.g. carrying out research on new-born infants or on auditory perception).