

Experimental Design and Analysis Notes

Topic 1: Scientific study in psychology

Four important aspects of the experimental method

- Objectivity
- Confirmation of findings e.g. replications
- Self-correction e.g. ability to alter conclusions
- Control

The experimental/scientific method

- Understanding cause and effect
- When we suspect a relationship between events, we often examine it in more detail by manipulating the preceding circumstances, and observing the change in the final event
- Distinguishing feature: Systematically examining all preceding circumstances influencing a variable
- It is simply a method of understanding reality which everyone indulges in, to some extent, throughout life
- Often there are too many possible preceding circumstances, so in the scientific method we take one or a few and concentrate on them

Conducting an experiment

- Control one variable/circumstance (IV) and watch how it effects an outcome (DV)
- This relationship (if it is shown) is often considered CAUSAL – one thing causes the other
- Cause and effect relationship
- Quantitative data is most used in psych because it is more conclusive and easier to analyse – but you lose value
- The basis of an experiment is that we are only testing the relationships between the IV and the DV. All other circumstances are controlled
- Controlled: hold all other possible IV's constant