

Doing Experiments

Decide on an aim
What is the general question you wish to answer? Which factor do you think affects which other factor, and how?

This should be derived from a theory of some kind.

These need to be things you can physically measure in some way.

Operationalise the IV and DV
How will you manipulate the IV and measure the DV?

Formulate a hypothesis
What specific prediction can you make about your results?

This has got to be an exact statement about what the results will be.

Select the conditions
Which two values of IV will you use for your experimental and control conditions?

You need to consider issues like sampling and participant variables

Decide on a design
How will you arrange the conditions of your experiment?

Independent measures
Two groups of PPs are used, one for each condition of the experiment

Repeated measures
One group of PPs is used. It does both conditions of the experiment

Matched participants
Two equal groups of participants are used, one for each condition. Pairs of participants are matched to be as similar as possible.

Collect data
Run the experiment

To do this properly, everything you do and say must be scripted in advance.

Graphs and charts can be helpful with this, but all sorts of techniques are available.

Analyse data
Use statistics to make sense of the data you have obtained

Accept or reject hypothesis
Decide whether your data are in line with the prediction you made about the results.

Now you need to evaluate your methodology to see whether you can trust your results.