Experimental Error

Experimental Error

Experimental error is the effect of factors other than those controlled by the experimenter

i.e. a difference in variables is due to *experimental error* rather than a mistake on the experimenters part

REMEMBER Experimental error cannot be completely eliminated

Control Groups

If a new treatment is applied to an **experimental group** then a **control group,** which receives no treatment or the normal treatment, is needed to act as a measure of the effect of not applying the new treatment (as a comparison)

It is necessary to have the **control group** and **experimental group** matched as closely as possible for the best comparisons.

This does not mean that the people within the group must be similar to each other just that the two groups as a whole should be similar

Blind and Double Blind Trials

A **blind trial** is when the subject does not know whether they are the patient taking the new treatment or not. In some cases a placebo may be used which is a pill or treatment which contains no active ingredient

The reason for this is to see whether improvements (or not) are due to the new treatment or mental attitudes. Some patients may appear to improve because they believe that the treatment will make them better - giving false information

Although the patient will not know whether they are taking a placebo or not, they will have consented to all aspect s of the trial and therefore will know that they *may* be taking a placebo and therefore this may affect their results

In a **double blind trial** neither the subject nor the person administering treatment knows who is taking the placebo and who is taking the new treatment (obviously someone needs to keep a record to be able to analyze the results)

The reason for this is to eliminate bias from the administrator and avoid any accidental disclosure of who is taking the placebo and new treatments