Experiments

Giddens (1989): "An attempt, within artificial conditions established by an investigator, to test the influence of one or more variables upon others".

Types

Laboratory

The general name for an experiment where the researcher controls the *environment* in which the research takes place. The ability to do this is a feature of *closed systems* - situations, such as in a laboratory, where the research conditions can be exactly monitored and controlled.

Natural

This type is sometimes called *opportunity experimentation* - the researcher takes advantage of a *naturally-occurring opportunity* to conduct the experiment. Such experiments are characteristic of *open systems* (such as the social world) where the environment cannot be closely monitored or easily controlled.

Field

Experiments conducted outside the confines of a closed, controlled, environment - respondents are studied in their natural environment. The basic principles are very similar to lab-type experiments (the objective being to identify dependent and independent behavioural variables and manipulate (or change) them to measure possible effects).

Comparative

Experiments that involve comparing two or more naturally occurring situations to examine their similarities and differences. **For example**, two identical twins separated at birth and raised in different families would provide an opportunity for a comparative experiment to identify similarities and differences in behaviour.

Concepts

Variables

Independent

These are the things a researcher *changes* in various ways in order to measure their possible *effect* on the dependent variable.

Dependent

In any experiment these are the *effect* we want to measure. In other words, any changes in this particular depend on - or are caused by - changes to something else.

Causality

This can be expressed in terms of the idea two or more things are so closely related that when *one* changes the *other* also changes. If this happens *every time* we repeat our experiment we can claim to have established a *causal relationship* - a very powerful statement, mainly because it allows us to make *predictions* about future behaviour. Causal relationships are, by definition, highly *reliable*.

Correlation

This is an observation two or more things occur at "the same time". This is a *weaker statement* than a causal statement because we can't be certain one thing *caused* another to happen - they may have happened at the same time by *accident* or *chance*.