Observational research

In these kinds of studies, it is not possible to determine a cause-effect relationship because the researcher does not control the variables. It might be possible to find correlations between observed variables, but this does not indicate the direction of a cause.

Essentially, an observation requires a researcher to enter a situation where some behaviour of interest is likely to take place, to watch the nature and frequency with which particular forms of behaviour occur, and to make a record of what is observed. Eventually, the record of observations is used to help answer a particular research question.

It is clear, then, that the term ‘observation’ can be misleading. Bandura (1965) used observation as a technique in an experimental setting. In the notorious Bobo doll study, he used controlled observations to record amounts of aggression shown by children after they had watched an adult model being rewarded, unrewarded or punished for aggression. Each child was then observed in an identical play setting with an identical doll. This experimental setting can be compared to a field setting where observers study aggressive behaviour of children in the playground. In such a setting there is not the strict control over timing, position and analysis of filmed records of behaviour as in the experimental setting. However, many contemporary researchers find the experiment setting too artificial and they argue that behaviour studied out of context is meaningless.

There has been an increasing concern among psychologists in recent year about quantitative research methods and the consequence is a growing number of strictly qualitative studies in mainstream psychology. Reason and Rowan (1981) criticised the over-use of quantitative methods claiming that "there is too much measurement going on. Some things that are numerically precise are not true; and some things, which are not numerical, are true. Orthodox research produces results which are statistically significant but humanly insignificant; in human inquiry it is better to be deeply interesting than accurately boring."

Some examples of largely qualitative observation studies are:

1. The case study
2. Clinical observation (as used by for example Piaget, Rogers and Freud).
3. The diary method
4. Content analysis: reducing qualitative data to quantified form. A crucial aspect of content analysis is the development of an appropriate coding system. Inter-coder reliability must be established.

Systematic observation: Observation may seem easy at first hand, but conducting a fully rigorous scientific observation is not as easy as it might seem. One of the first challenges is being very clear about what exactly it is that you are observing.

In all cases, data must be coded or categorised in order to analyse them, and the
researcher must operationalise any measures being used. Observers also need a system where they can note down the frequency of the behaviour in focus and perhaps also the time.

Observers can’t observe everything, so they have to decide exactly what kind of behaviour they’ll observe. They may conduct ‘time sampling’, i.e. observe for certain periods, ‘point sampling’, i.e. observe each individual’s current category of behaviour before moving on to the next individual, or ‘event sampling’, i.e. observe a specific event every time it occurs.

Reliability of observational techniques

Researchers need reliable records and this can be achieved by correlating their results with those of other observers to produce an estimate of inter-observer - or inter-rater reliability. This reliability estimate may be low if there is observer bias. In order to achieve inter-rater reliability, a standardised coding system and training of the observers.

It may be an advantage that several observers work at the same time, and sometimes independent observers are used. This has the advantages that one observer might notice what the other missed, and further, it allows the researcher to become aware of the amount of agreement between the observers. Inter-observer reliability is the amount of agreement between the different observers’ report of the same phenomenon. If the correlation is of .8 or more, it is considered to be reliable. If the correlation is low, either there has been too much going on for one person to observe or the observers have been influenced by personal bias or expectations.

Controlled and naturalistic observation

Researchers try to control their data gathering as far as possible, and they can do this especially in laboratory studies. However, lab studies are said to be artificial by many researchers so they prefer naturalistic observations where everyday behaviour is being observed in its natural setting.

Naturalistic observation: people/animals are observed in their natural environment. It can be researcher observing child behaviour in a kindergarten, shoppers in a shopping centre or students’ behaviour in a school etc. An advantage of this is ecological validity and it is preferred when other approaches would be impossible or unethical but not all behaviour is exhibited in specific settings and there may be reactivity involved. Ethical considerations concerning whether the appropriateness to observe strangers without their knowledge.

Controlled observation: Researchers have set up a situation (an experiment, for example, to see how mothers and children interact in specific situations). Advantage: researchers have control but disadvantage: less ecological validity.