



# OBSERVATIONS

Different observation types and inter-observer reliability

Learning Approach

You may be familiar with observation being included as part of the data collection for experiments. But in an experiment where the investigator manipulates the IV and controls as many extraneous variables as possible, the observation itself is not a research method. For **observation** to be a research method, it must be the main method of gathering data, and this is done in a natural environment where nothing is manipulated or controlled by the experimenter – behaviour is simply observed, and recorded as natural.

Sometimes, an observation can be in the form of a **structured observation**, where the same situation is repeated with different groups of participants and researchers observe what happens to each different participant in that situation. The IV is not manipulated by the researcher, but the setting and environment are well-controlled, making it structured.

However, structured observations are very rarely used in Psychology. They may be used in child psychology, but otherwise a **naturalistic observation** is used.

Type of observation	Description	Strengths	Weaknesses
<b>Naturalistic in general</b>	An observation is carried out 'in the field' (in a natural setting), and the participants may be aware or unaware that they are being studied	<p>There is ecological validity because they take place in a natural environment for the participants</p> <p>They gather in-depth and detailed data that is usually qualitative, but is still quite rich even when quantitative</p>	<p>It is possible that the observer is subjective because they have to choose what to observe and what to record</p> <p>Data and findings are not generalisable to all people at all times, as the study is a cross-section of one moment in time</p>
<b>Participant</b>	The observer takes part in the study and takes part in all activities – the observer is one of the participants of the study	<p>There is ecological validity because the study takes place in a natural setting</p> <p>The observer is likely to gather valid data which is obtained from a natural setting with natural activities</p>	<p>The observer may become too involved with having both the observer and participant role and may not be able to record all the information needed</p> <p>Difficult to replicate as it's hard to find someone who can do both roles</p>
<b>Non-participant</b>	The observers are not part of the study, they sit away from the activities and do not get actively involved	<p>Findings can be objective and therefore more reliable, because the observers stand back from the study and have more time to record findings</p> <p>Time-tallying can be used which is very difficult when also taking part in the study</p>	<p>The observers are more likely to affect the situation lost from their presence</p> <p>The observers might miss the relevance of some interactions or misunderstand something due to not having an active part in the activities</p>
<b>Covert</b>	Participants do not know that there is an experiment taking place and that they are being studied, the study is being carried out secretly	<p>Studies have high ecological validity because normal behaviour is observed (participants are unaware of the study)</p> <p>The observation is easier because the observer can carry out the study without the participants worrying about the observer</p>	<p>There is no informed consent, so they may not be ethical</p> <p>Participants cannot help the observer (e.g. by finding a suitable location) which causes problems as it is hard to observe in secret as the observer must do something different from the norm</p>
<b>Overt</b>	Participants are aware that they are being studied and are completely aware of all aspects of the study	<p>They are ethical because the observers have informed consent and right to withdraw</p> <p>The observers can ask for assistance from the participants (e.g. where to study from)</p>	<p>The participants are aware of the study and so normal behaviour may not occur</p> <p>It might be difficult to carry out because the observers themselves would be watched to see what they are doing</p>

To summarise from the table above, there are four types of naturalistic observation, which fall under two conditions:

- **participant observation** or **non-participant observation** – either the observer takes part in the study as one of the participants, or they remain a sole observer to record information only
- **covert observation** or **overt observation** – either the observation takes place secretly without the participants knowing they are being studied, or the observer tells them fully about the study to gain informed consent

Whilst one of the main weaknesses of observations in general is that they tend to be hard to replicate, and therefore more often than not lack much reliability (as it cannot be tested for), an observation can have high **inter-observer reliability**. This occurs when there is more than one observer allocated to the study, and they each record their own data separately. After the data collection has taken place, the findings from each are compared and if there is a clear correlation in the data then the observation is said to have inter-observer reliability, which is a strength.

### DATA COLLECTION IN OBSERVATIONS

An observation does not only collect *qualitative data*, but also *quantitative data*. Whilst less in-depth and rich with interpretable information, quantitative data (numerical) are useful when it comes to analysing the results obtained from the observation as a whole. There are two methods explained here for collating quantifiable data:

#### **Tallying**

This involves making a mark each time a specific behaviour is observed. For successful **tallying**, there should be an initial observation, preferably with more than one observer, in which categories of behaviour are recorded so that all the researchers know what behaviour should be tallied

#### **Time-tallying**

**Time-tallying** involves using a tally table to show behaviours being observed, but rather than giving one tally for every time a behaviour is observed, it means putting down a tally mark for each interval of time (set by the observer) that the behaviour *remains to be done for*. For example, if you are observing the types of toys a child plays with, and they play with some play-dough, are you going to wait until he's finished playing with the play-dough until your next tally? The child could play with it for a long time. Instead, mark off one tally for every minute (or other period of time) he continues playing with the play-dough. When he's finished, the tallying stops, and the next toy goes up