Hugh Coolican (2006) - Expectancy effects and unconscious cues
Bowlby - Attachment
Keywords:

Pilot study - A small-scale version of an investigation that takes place before the real investigation is conducted. The aim is to check that procedures, materials, measuring scales, etc., work and to allow the researcher to make changes or modifications if necessary.

Naturalistic observation - Watching and recording behaviour in the setting within which it would normally occur.

Controlled observation - Watching and recording behaviour within a structured environment, i.e. one where some variables are managed.

Covert observation - Participants’ behaviour is watched and reordered without their knowledge or consent.

Overt observation - Participants’ behaviour is watched and reordered with their knowledge and consent.

Participant observation - The researcher becomes a member of the group whose behaviour he/she is watching and recording.

Non-participant observation - The researcher remains outside of the group whose behaviour he/she is watching and recording.

Behavioural categories - When a target behaviour is broken up into components that are observable and measurable.

Event sampling - A target behaviour or event is first established then the researcher records this event every time it occurs.

Time sampling - A target individual or group is first established then the researcher records their behaviour in a fixed time frame, say, every 60 seconds.

Self-report technique - Any method in which a person is asked to state or explain their own feelings, opinions, behaviours and/or experiences related to a given topic.

Questionnaire - A set of written questions used to assess a person’s thoughts and/or experiences.

Interview - A ‘live’ encounter where one person asks a set of questions to assess an interviewee’s thoughts and/or experiences. The questions may be pre-set (structured) or may develop as the interview goes along (unstructured interview).

Open questions - Questions for which there is no fixed choice of response and respondents can answer in any way they wish.

Closed questions - Questions for which there is a fixed choice of responses determined by the question setter.

Correlation - A mathematical technique in which a researcher investigates an association between two variables, called co-variables.

Correlation Coefficient - A number between –1 and +1 that represents the direction and strength of a relationship between co-variables.

Co-variables - The variables investigated within a correlation. They are not referred to as the independent and dependent variables because a correlation investigates the association between the variables, rather than trying to show a cause and effect relationship.

Keywords:

Positive correlation - As one co-variable increases so does the other.

Negative correlation - As one co-variable increases the other decreases.

Zero correlation - When there is no relationship between the co-variables.

Qualitative data - Data that is expressed in words and non-numerical.

Quantitative data - Data that can be counted, usually given as numbers.

Primary data - Information that has been obtained firsthand by the researcher for the purposes of a research project. In psychology, such data is often gathered directly from participants as part of an experiment, self-report or observation.

Secondary data - Information that has already been collected by someone else and so pre-dates the current research project. In psychology, such data might include the work of other psychologists or government statistics.

Meta-analysis - ‘Research about research’, refers to the process of combining results from a number of studies on a particular topic to provide an overall view. This may involve a qualitative review of conclusions and/or a quantitative analysis of the results producing an effect size.

Descriptive statistics - The use of graphs, tables and summary statistics to identify trends and analyse sets of data.

Measures of central tendency - The general term for any measure of the average value in a set of data.

Mean - The arithmetic average calculated by adding up all the values in a set of data and dividing by the number of values there are.

Median - The central value in a set of data when values are arranged from lowest to highest.

Mode - The most frequently occurring value in a set of data.

Measures of dispersion - The general term for any measure of the spread or variation in a set of scores.

Range - A simple calculation of the dispersion in a set of scores which is worked out by subtracting the lowest score from the highest score and adding 1 as a mathematical correction.

Standard deviation - A sophisticated measure of dispersion in a set of scores. It tells us how much scores deviate from the mean by calculating the difference between the mean and each score. All the differences are added up and divided by the number of scores. This gives the variance. The standard deviation is the square root of the variance.

Scattergram - A type of graph that represents the strength and direction of a relationship between co-variables in a correlational analysis.

Bar chart - A type of graph in which the frequency of each variable is represented by the height of the bars.

Normal distribution - A symmetrical spread of frequency data that forms a bell-shaped pattern. The mean, median and mode are all located at the highest peak.

Skewed distribution - A spread of frequency data that is not symmetrical, where the data clusters to one end.

Positive skew - A type of distribution in which the long tail is on the positive (right) side of the peak and most of the distribution is concentrated on the left.
A01
Aims
Developed from theories. General statements that describe the purpose of an investigation. E.g. to investigate whether drinking energy drinks makes people more talkative.

Hypotheses
A statement that is made at the start of a study, clearly states relationship between variables, e.g. drinking speedUpp causes people to become more talkative. Two types of hypothesis:

1. Directional: clear difference anticipated between two conditions/groups. Include words like more/less, higher/lower, faster/slower. E.g. people who drink speedUpp become less/more talkative than those who don’t.

Doing an experiment
Gather two groups of people, i.e. 10 in each group. Give one group a can of speedUpp, other group has glass of water, record how many words participants speak in 5 minutes, immediately after drink.

Deciding which hypothesis
Directional - findings of previous research suggest a particular outcome. Non-directional - no previous research, or finding from earlier studies contradictory.

SpeedUpp-directional as caffeine in energy drink well known as talkative.

Independent and dependent variables
Researcher changes/manipulates IV, records/measures change in DV. Other variables should remain constant. So researcher confident cause of effect on DV due to IV.

Levels of IV
To test IV, need different experimental conditions. Need comparisons, e.g. two conditions for SpeedUpp: control condition - no SpeedUpp, experimental conditions - Drink of speedUpp. Hypothesis tells what IV and DV are. Unoperationalled hypothesis: The group that drinks an energy drink will be chattier than the group that drinks water.

Operationalisation of variables
Variables being investigated are as measurable as possible. Better operationalised hypothesis: After drinking 300ml of speedUpp participants say more words in the next five minutes than participants who drink 300ml of water.
LABORATORY EXPERIMENT

TYPES OF EXPERIMENTS:

A01

Laboratory Experiments

Laboratory experiments are conducted in highly controlled environments. This is not always a laboratory (lab) it could, for example, be a classroom where conditions can be well controlled.

A03

Strengths

High control over extraneous variables. Means researcher can ensure any effect on DV likely result of manipulation of IV. More certain about demonstrating cause and effect (high internal validity). Replication more possible than other types of experiment as high level of control. Ensures new extraneous variables not introduced when repeating experiment. Replication is vital to check results of any study, see if findings valid, not just a one-off.

Limitations

Lack generalisability. Lab environment artificial not like everyday life. Unfamiliar context participants may behave unusual way, so behaviour not generalised beyond research setting (low external validity). Participants usually aware being tested in lab experiment, give rise to unnatural behaviour. Tasks participants asked to do in lab not represent real-life (low mundane realism).

NOTES
QUASI-EXPERIMENTS

TYPES OF EXPERIMENTS:

Quasi-experiments

Quasi-experiments have an IV that is based on an existing difference between people (for instance, age or gender). No one has manipulated this variable, it simply exists. For instance, if the anxiety levels of phobic and non-phobic patients were compared, the IV of 'having a phobia' would not have come about through any experimental manipulation.

Strengths

Quasi-experiments are often carried out under controlled conditions and therefore share the strengths of a lab experiment = High control over extraneous variables. Means researcher can ensure any effect on DV likely result of manipulation of IV. More certain about demonstrating cause and effect (high internal validity). Replication more possible than other types of experiment as high level of control. Ensures new extraneous variables not introduced when repeating experiment. Replication is vital to check results of any study, see if findings valid, not just a one-off.

Limitations

Quasi-experiments, like natural experiments, cannot randomly allocate participants to conditions and therefore there may be confounding variables.
OBSERVATIONAL TECHNIQUES

A01
Types of observation:
Non-experimental method. Provide psychologists way of seeing what people do without having to ask them. Allow researchers to study observable behaviour in a natural or controlled setting. Provides researcher the flexibility to study more complex interactions between variables in more natural way.

Naturalistic and controlled observations
In setting or context where target behaviour would usually occur. All aspects of environment are free to vary. Much better to study in something where interaction normally takes place. Sometimes useful to control certain aspects of research situation, controlled may be preferred, eg Mary Ainsworth used controlled observation as part of her Strange Situation, how children reacted natural environment. Controlled some control over variables, including manipulating variables to observe effects and also control of extraneous variables.

Covert and overt observations
Occasionally recorded without first obtaining consent of participants. Covert participants are unaware they are focus of study and their behaviour observed in secret. Such behaviour must be public and happening anyway if the observation is to be ethical. Overt are when participants know their behaviour is being observed given their informed consent beforehand.

Participant and non-participant observations
Sometimes necessary for observer to become part of group they studying. Non-participant researcher remains separate from those they studying and records behaviour in a more objective manner. Often impractical or even impossible to join particular groups so that non-participation is the only option such as a middle-aged female researcher observing behaviour amongst Year 10 students at a boys’ school.

A03
Naturalistic and controlled observations
Naturalistic observations have high external validity—findings can often be generalised to everyday life, as behaviour is studied within environment where it would normally occur. Lack of control over the research situation makes replication of investigation difficult. There may also be many uncontrolled extraneous variables that make it more difficult to judge any pattern of behaviour. Controlled observations, produce findings that cannot be as readily applied to real-life settings. Extraneous variables may be less of a factor so replication of the observation becomes easier.

Covert and overt observations
The fact that participants do not know they are being watched removes the problem of participant reactivity, ensures any behaviour observed will be natural. This increases the validity of the data gathered. Ethics of studies may be questioned as people may not wish to have their behaviours noted down. Overt observations are more ethically acceptable but the knowledge participants have that they are being observed may act as significant influence on their behaviour.

Participant and nonparticipant observations
Participant—researcher experience the situation as the participants do; giving them increased insight into lives of the people being studied. This may increase the validity of the findings. Researcher may come to identify too strongly with those they are studying and lose objectivity. Non-participant observations allow the researcher to maintain an objective psychological distance from their participants so there is less danger of them ‘going native’. May lose the valuable insight to be gained in a participant observation as they are too far removed from the people and behaviour they are studying.
SELF-REPORT DESIGN

Designing questionnaires
Closed questions can be divided into:
- **Likert scales** - respondent indicates agreement with statement using scale of usually 5 points. Range from strongly agree to strongly disagree.
  - Clinical judgement can be as accurate at predicting risk as assessment tool scores

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- **Rating scale** - respondents identify value represents strength of feeling on topic.

- **Fixed choice option** - includes list of possibly options for respondents, required to indicate those which apply.

Designing interviews
Most involve interview schedule, should be standardised to reduce contaminating effect of interviewer bias. Interviewer will take notes throughout. Interview may be recorded, analysed later. May be single pp, or group interview in clinical setting. One-to-one interview, in quiet room, away from other people, increase likelihood interviewee will open up. Begin with neutral question, make pp feel relaxed and comfortable. Reminded with strictest confidence. Especially personal topics.

Writing good questions
- **Overuse of jargon** - don’t be unnecessarily complex—best questions are simple and easily understood.
- **Emotive language and leading questions** - use neutral wording and no leading questions.
- **Double-barrelled questions and double negatives** - double barrel contains two questions in one, issue being respondents may agree with one half of the question and not the other. Questions with double negatives difficult for respondents to understand. For example, I am not unhappy in my job is difficult to understand at first reading and will confuse the responder more.