

1.2

Experimental methods

Types	Laboratory experiment (true experiment)	Field experiment (quasi experiment)	Natural experiment (quasi experiment)
Characteristics	<ul style="list-style-type: none"> ■ It takes place in a laboratory (artificial environment). ■ The researcher manipulates the IV and controls all other variables (to avoid confounding variables). ■ There is a controlled environment and standardized procedures. 	<ul style="list-style-type: none"> ■ It takes place in a natural environment. ■ Impossible to obtain total control so there may be confounding variables. ■ The researcher manipulates the independent variable (IV). 	<ul style="list-style-type: none"> ■ The independent variable (IV) is naturally occurring. ■ The researcher does not manipulate the variables but records possible effects of a variable (IV) on another (the dependent variable or DV).
Strengths	<ul style="list-style-type: none"> ■ It can establish cause-effect relationships. ■ There is variable control and accuracy of measurements → objectivity. ■ It is easy to replicate (increase reliability of results). 	<ul style="list-style-type: none"> ■ It has more ecological validity than laboratory experiments because behaviour occurs in a natural environment. ■ There are fewer demand characteristics (especially if participants do not know that they are being studied). 	<ul style="list-style-type: none"> ■ It has ecological validity – the focus is on natural behaviour in a natural environment. ■ There is very little bias from demand characteristics, especially if participants do not know they are being investigated.
Limitations	<ul style="list-style-type: none"> ■ Artificiality may result in lack of ecological validity. ■ Results may be biased because of demand characteristics and experimenter effects. ■ Sometimes deception is necessary (ethical issue). 	<ul style="list-style-type: none"> ■ There is a risk of bias from confounding variables because there is less control. ■ It is nearly impossible to replicate exactly. ■ It is more difficult to record data accurately. ■ Possible ethical issues, for example problems with informed consent, exposure to unpleasant situations, invasion of privacy. 	<ul style="list-style-type: none"> ■ It is impossible to establish cause-effect relationship. ■ The research is impossible to replicate exactly – often case studies. ■ There are ethical issues of consent, deception, invasion of privacy.
Examples from the sociocultural level of analysis	Investigating the reaction of children after watching either an adult model acting aggressively towards a Bobo doll or not acting aggressively towards the Bobo doll (Bandura et al. 1961).	Investigating whether creating in-group/out-group attitudes in two groups of 11-year-old boys would result in intergroup aggression or not. Similarly, investigating whether cooperation could eliminate aggression (Sheriff et al. 1956, 1961).	Investigating levels of aggression in children in a small community on Saint Helena Island before and after the introduction of television (Charlton et al. 1997).

True experiment: there is control over variables and the possibility for random allocation to experimental conditions.
Quasi experiment: there is no control over variables (e.g. if they are naturally occurring such as gender, ethnicity, age) and no possibility of random allocation to conditions.

1.3

Non-experimental methods

<p>Interviews</p> <p>Structured interviews</p> <p>Unstructured interviews</p> <p>Semi-structured interviews</p>	<ul style="list-style-type: none"> ■ Collection of data from individuals by asking them (self-report method) – mostly in a face-to-face situation (but can also take place by telephone or email). ■ Qualitative approach to research (mostly) – collecting subjective data, interpreted by the researcher. ■ No cause-effect relationships but rather "perception" and "subjective understanding" of situations and events. ■ Very structured approach – interview schedule states questions and the order they will be asked, but possible for interviewer to be flexible. Often closed questions. <ul style="list-style-type: none"> ■ Strength: easy to analyse data. ■ Limitation: somewhat artificial as the structure imposes many limitations to understanding participants. ■ Specification of topics and allocation of time (somewhat like a conversational interview). <ul style="list-style-type: none"> ■ Strength: open to the respondents' own ideas ■ Limitation: may be difficult to analyse data since the interview may take many different directions. ■ Interview schedule with specified questions but more informal and flexible. <ul style="list-style-type: none"> ■ Strength: possible to maintain focus of interview (because of the interview schedule) but flexible and gives opportunity for respondents to talk more freely. ■ Limitation: data analysis very time consuming.
<p>Ethics in interviews</p>	<ul style="list-style-type: none"> ■ Ethical issues when interview topic is socially or personally sensitive. ■ Professional competence important so that interviewer can avoid making respondents feel uncomfortable. ■ Inform respondents about right to withdraw. ■ Avoid abuse of information.
<p>Survey</p> <p style="text-align: center;">↓</p>	<ul style="list-style-type: none"> ■ Often used to collect data from larger groups (small-scale surveys under 300, large-scale surveys over 300). ■ Questionnaires – or interviews (self-report data). ■ Use of closed or open-ended questions. <ul style="list-style-type: none"> ■ Strength: possible to collect data in a relatively quick and easy way. ■ Limitation: self-report data may be affected by response bias.
<p>Questionnaire</p>	<ul style="list-style-type: none"> ■ Data is collected through the use of written questions – surveys: <ul style="list-style-type: none"> ■ open-ended questions ■ closed questions ■ quantitative and qualitative data.
<p>Qualitative data – qualitative analysis</p>	<ul style="list-style-type: none"> ■ Data which express what people think and feel and which are not numerical. Qualitative data can be turned into quantitative if they are categorized. ■ Qualitative analysis: a kind of analysis that focuses on the <i>meaning</i> of what participants say and the way they experience an event, rather than individual words. ■ Qualitative analysis involves interpretation (often related to a theoretical framework, such as thematic analysis or grounded theory).
<p>Quantitative data – quantitative analysis</p>	<ul style="list-style-type: none"> ■ Numerical data (numbers) express amount, length etc., and the data can be measured in numbers or quantity. ■ Quantitative analysis uses the numerical data for analysis and interpretation. This takes place in the form of descriptive statistics (e.g. mean and standard deviation) and inferential statistics (any statistical test) which is used to make inferences about the data.