AQA Psychology A-level

Topic 7: Research Methods
Flashcards

Define experimental method.

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The experimental method concerns the manipulation of an independent variable (IV) to have an effect on the dependent variable (DV) which is measured and stated in results.

What is the difference between a directional and non-directional hypothesis?

What is the difference between a directional and non-directional hypothesis?

A directional hypothesis states the direction of the impact of independent variable (IV) on the dependent variable (DV) whereas non-directional does not state the direction of the relationship between the IV and the DV.

Identify five types of sampling methods.

Identify five types of sampling methods.

- Opportunity sampling.

- Random sampling.

- Systematic sampling.

- Stratified sampling.

- Volunteer sampling.

Outline how you would take a stratified sample.

Outline how you would take a stratified sample.

1. Identify the strata.
2. Calculate the required proportion for each stratum based on the size of the target population.
3. Select the sample at random from each stratum.
4. To do this, you can use a random selection method e.g. using a computer.

Explain one advantage of using a stratified sample.

Explain one advantage of using a stratified sample.

The sample is able to be more representative of the target population compared to other types of sampling.

Explain what is meant by operationalisation.

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Operationalisation is the process by which a researcher defines how a concept is measured, observed, or manipulated within a particular study. For example, social anxiety can be operationally defined in terms of self-rating scores, behavioral avoidance of crowded places, or physical anxiety symptoms in social situations.

What is the difference between the independent variable and the dependent variable?

What is the difference between the independent variable and the dependent variable?

IV is the variable that is manipulated to observe its effect on the DV whereas the DV is the variable that is being measured and is affected by the IV.

What is a solution to the problem of order effects caused by a repeated measures design?

What is a solution to the problem of order effects caused by a repeated measures design?

A solution would be counterbalancing. This is when half of the participants are made to do conditions in one order and the other half in the opposite order. This eliminates order effects.

Explain the difference between the aim and the hypothesis.

Explain the difference between the aim and the hypothesis.

The aim of the study tells us what the study is investigating whereas the hypothesis is a statement that predicts the relationship between the IV and the DV.

Identify the four types of experiments.

Identify the four types of experiments.

- Laboratory

- Field

- Quasi

- Natural

Describe the purpose of carrying out a peer review.

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The main purposes of carrying out a peer review are:

- To allocate research funding to projects that is worthwhile.
- To make sure the research is of good quality and is relevant.
- To be able to suggest improvements so that faulty or incorrect data is not released to the public.
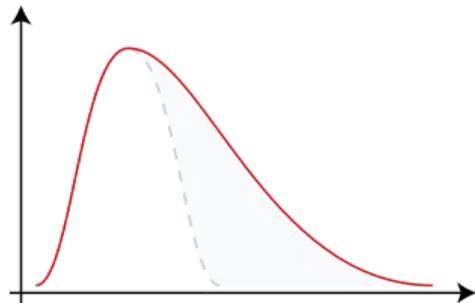
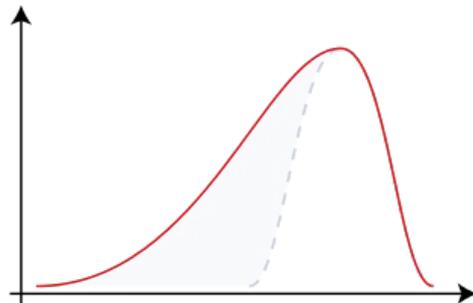Define the two types of skewed distributions.

Define the two types of skewed distributions.

- Positive skew - when plotted on a graph, the data has a long tail on the right.
- Negative skew - when plotted on a graph, the data has a long tail on the left.

Positive Skew

Negative Skew

Give two strengths of conducting a content analysis.

Give two strengths of conducting a content analysis.

- It has high mundane realism and external validity as what is being studied is already out there in the real world.
- Produces a large data set of both qualitative and quantitative data that is easy to analyse.

Give two limitations of a content analysis.

Give two limitations of a content analysis.

- Causality cannot be established as it merely describes the data
- As it only describes the data it cannot extract any deeper meaning or explanation for the data patterns arising.

Give three limitations of conducting a case study.

Give three limitations of conducting a case study.

- As it only concerns one person it is not really generalisable to wider populations.
- Retrospective studies may rely on memory which can be unreliable.
- They are time consuming.

Define reliability.

Define reliability.

It is a measure of consistency, for example if a particular measurement is replicable then that measurement is described as being reliable.

Explain two ways of assessing the validity of research.

Explain two ways of assessing the validity of research.

- Face validity: A measure is scrutinised to determine whether it appears to measure what it is supposed to.
- Concurrent validity: Checking the extent to which a psychological measure relates to an existing and well-established similar one.
  - For example, if you are measuring depression using a new scale, you would want to have a portion of your participants also use an established depression measure or scale, e.g. the Beck Depression Inventory. If there is a strong positive correlation between scores on your scale and scores on the established scale, there is good concurrent validity.

What are the three factors that help you decide which inferential statistical test to use?

What are the three factors that help you decide which inferential statistical test to use?

- The level of data that was collected.
- Whether the design of the study is related or unrelated
- Whether a difference or correlation is being measured

Identify the three levels of measurement.

Identify the three levels of measurement.

- Nominal data.

- Interval data.

- Ordinal data.

Describe nominal data and give an example.

Describe nominal data and give an example.

Data that describes characteristics or groups, for example ethnicity, car brand, place of birth. There's no ranking or natural order.

Describe ordinal data and give an example.

Describe order data and give an example.

Data that, like nominal data, describes characteristics or groups, for example political orientation or income level. Unlike nominal data, it can be ordered or ranked, e.g. left-of-centre -> centre -> right-of-centre, or low income, middle income and high income.

Describe interval data and give an example.

Describe interval data and give an example.

Numerical data such as credit ratings, temperature, IQ.

Numerical data doesn't have a meaningful zero point - for example, the temperature can be 0C but that doesn't mean there's no temperature or heat.

Describe the difference between a single-blind procedure and a double-blind procedure.

Describe the difference between a single-blind procedure and a double-blind procedure.

In a double-blind procedure, neither the researcher nor the participant are aware of the aims, procedures and conditions of the study. In a single-blind procedure it's only the participant who isn't aware of them - the researcher is.

Describe the difference between unstructured and structured observation.

Describe the difference between unstructured and structured observation.

An unstructured observation consists of continuous recording where everything the researcher sees is written down, whereas structured observation has a predetermined list of behaviours and sampling methods with which the researcher quantifies their observation with (e.g., notes the number of times a participant crosses their arms).

Describe how correlations differ from experiments.

Describe how correlations differ from experiments.

Firstly, with correlations variables are simply measured not manipulated. Secondly there is no DV or IV involved which means there is no cause and effect relationship found, only an association is found.

Identify three measures of central tendency.

Identify three measures of central tendency.

- Mode.
- Median.
- Mean.

Describe the difference between primary and secondary data.

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Primary data is obtained firsthand by the researcher whereas secondary data has already been collected by someone else other than the researcher.

Outline three things a researcher should think about when constructing a questionnaire.

Outline three things a researcher should think about when constructing a questionnaire.

- Clarity - the researcher should make sure it is clear what each of the questions are asking.
- Analysis - the questionnaire should be written in a way that can be easily analysed.
- Sequencing questions- the researcher should think about the order of questions, maybe easy ones first then harder ones last to build up the confidence of the participants.

Give two strengths of conducting an unstructured interview.

Give two strengths of conducting an unstructured interview.

- Lots of data is collected which has more depth and detail.
- It can be tailored to individuals giving more insight into the subjective experience of the person being interviewed.

Identify various types of observation.

Identify various types of observation.

- Naturalistic.

- Controlled.

- Overt.

- Covert.

- Participant.

- Non-participant.

What are the different ethical issues that research may present?

What are the different ethical issues that research may present?

- Informed consent.

- Deception.

- Protection from harm.

- Privacy and confidentiality.