



# Knowledge Organiser: Yr12 Psychology; RESEARCH METHODS A2

## CORRELATIONS

1

The relationship between two continuous co-variables.

### **Correlation coefficient**

Represents the strength and direction of the relationship.

The closer the coefficient is to -1 or +1, the stronger the relationship.

+50 is as strong as -.50, so the sign just tells us the direction.

## RELIABILITY

3

Any measurement should produce the same result unless the thing it is measuring has changed.

### **WAYS OF ASSESSING RELIABILITY**

- Test-retest – the same test is administered on more than one occasion.
- Inter-observer reliability – more than one observer present.

### **IMPROVING RELIABILITY**

- Questionnaires – more closed questions.
- Observations – operationalise behavioural categories.
- Experiments – used standardised procedures.

## VALIDITY

Whether something produces a legitimate result which represents the real-world.

4

### **TYPES OF VALIDITY**

- Internal and external – whether something measures what it is designed to measure, and whether the findings can be generalised.
- Ecological – the findings can be generalised to other settings.
- Temporal – findings are true over time.

### **WAYS OF ASSESSING VALIDITY**

- Face validity – does a test measure what it is supposed to?
- Concurrent validity – do results match to an already established test?

## CASE STUDIES AND CONTENT ANALYSIS

2

### **CASE STUDIES**

Detailed analysis of an unusual individual or event  
e.g. the London riots.

### **EVALUATION**

#### **STRENGTHS:**

Insight in to unusual cases.  
Generate hypotheses for future studies.

#### **LIMITATIONS:**

Generalisation can be a problem.  
Researcher can be subjective.

### **CONTENT ANALYSIS**

- A form of observation in which communication is studied directly.
- Turns qualitative into quantitative.
- Thematic analysis – common themes.

### **EVALUATION**

#### **STRENGTHS:**

Fewer ethical issues.  
Higher external validity.

#### **WEAKNESSES:**

Information could be subjective.

## CHOOSING A STATISTICAL TEST

5

Statistical tests tell us whether results are significant or due to chance.

### **DECISIONS**

- Decision 1 – Difference or correlation?
- Decision 2 – Experimental design?
- Decision 3 – Level of measurement?

Nominal – data is in categories.

Ordinal – ordered data, but equal intervals.

Interval – based on public scales with units of equal size.

- Parametric tests – used with interval level data, normal distribution and satisfies homogeneity of variance.

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- **Paradigms and paradigm shifts** – scientific subjects have a shared set of assumptions and a scientific revolution occurs when there is a paradigm shift.
- **Theory construction and hypothesis testing** – theory construction occurs through gathering evidence from direct observation. A theory should produce a testable hypothesis.
- **Falsifiability** – scientific theories must hold themselves up for hypothesis testing and the possibility of being proven false.
- **Replicability** – findings must be shown to be repeatable across time and context.
- **Objectivity and the empirical method** – scientists must minimise all sources of persona bias and gather evidence through direct observation and experience.

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# How do we use Knowledge Organisers in Psychology

## How can you use knowledge organisers at home to help us?

- **Retrieval Practice:** Read over a section of the knowledge organiser, cover it up and then write down everything you can remember. Repeat until you remember everything.
- **Flash Cards:** Using the Knowledge Organisers to help on one side of a piece of paper write a question, on the other side write an answer. Ask someone to test you by asking a question and seeing if you know the answer.
- **Mind Maps:** Turn the information from the knowledge organiser into a mind map. Then reread the mind map and on a piece of paper half the size try and recreate the key phrases of the mind map from memory.
- **Sketch it:** Draw an image to represent each fact; this can be done in isolation or as part of the mind map/flash card.
- **Teach it:** Teach someone the information on your knowledge organiser, let them ask you questions and see if you know the answers.

## How will we use knowledge organisers in Psychology?

- **Test:** We will do regular low stakes tests to check your ability to retrieve information from memory.
- **Mark our answers:** Once you have done a low stake test you can mark your work using the knowledge organiser.
- **Improve our work:** Once you have finished a piece of work you may be asked to check your knowledge organiser to see if there is any information on it that you could add into an answer.

| <u>ASSESSMENT</u><br><u>TYPE</u> | <u>SECTION ON KNOWLEDGE</u><br><u>ORGANISER</u> | <u>DATE</u><br><u>COMPLETED</u> | <u>SCORE/TOTAL</u><br><u>SCORE</u> |
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