



# YEAR 1 AUTUMN TERM

'An ambitious curriculum that meets the needs of all'

## Medium Term Planning - Topic: Research Methods year 12

### Curriculum Intent

Pupils will be taught the following this half term with teacher 1: Research Methods

#### Why do we teach this to students?

This is at the very core of what psychology is: finding ways to explore and investigate human behaviour with scientific rigor.

#### Why do we teach this now?

After students should start to gain a good understanding of what the subject is all about, they can begin to see how psychologists do their usual work. This module is a double module (Introductory and Advanced), which is split in two so that 'year 2' research methods can be taught near the end of year so students are ready for Psychology papers that have RM questioned throughout.

**Aims & hypotheses:** stating aims, the difference between aims and hypotheses; directional and non-directional hypotheses

**Experimental method:**

**Variables:** manipulation and control of variables, including independent, dependent, extraneous, confounding; operationalization of variables.

**Demand characteristics** and **investigator effects.**

**Experimental designs:** repeated measures, independent groups, matched pairs.

**Experimental methods:** laboratory and field experiments; natural and quasi-experiments.

**Sampling:**

The difference between population and sample

Sampling techniques including: random, systematic, stratified, opportunity and volunteer

Implications of sampling techniques, including bias and generalisation.

**Ethics:**

- **Ethical issues** in the design and conduct of psychological studies
- The role of **The British Psychological Society's code of ethics**
- **Dealing with ethical issues** in research.

**Data handling and analysis:**

- **Quantitative and qualitative data:** the distinction between qualitative and quantitative data collection techniques.
- **Primary and secondary data,** including meta-analysis.
- **Descriptive statistics:** measures of central tendency – mean, median, mode; calculation of mean, median and mode; measures of dispersion; range and standard deviation; calculation of range; calculation of percentages
- **Presentation and display of quantitative data:** graphs, tables, bar charts, histograms.

**Distributions:** normal and skewed distributions; characteristics of normal and skewed distributions.

**Observational techniques:**

- **Types of observation:** naturalistic and controlled observation; covert and overt observation; participant and non-participant observation.
- **Design:** behavioural categories; event sampling; time sampling.

**Self-report techniques:**

Questionnaires; interviews, structured and unstructured, including use of open and closed questions; design of interviews.

**Correlations:**

- Analysis of the relationship between **co-variables.** The difference between correlations and experiments.
- Positive, negative and zero correlations; scattergrams
- Analysis and interpretation of correlation, including **correlation coefficients.**

**Pilot studies** and the aims of piloting.

Peer Review

Sign test and significance

Reliability and validity

Designing a Psychological study

The exams will measure how students have achieved the following assessment objectives:

AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures.

AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures :in a theoretical context, in a practical context, when handling qualitative and quantitative data.

AO3: Analyse, interpret and evaluate scientific information, ideas and evidence, including in relation to issues, to make judgements and reach conclusions, develop and refine practical design and procedures.

### Skills/Assessment objective links

<p><b>Spiritual, moral, social, and cultural development</b></p>	<p><b>SMSC:</b> understanding how ethical guidelines were applied to psychological research</p> <p><b>PSHE:</b></p> <ul style="list-style-type: none"> <li>How to talk about emotions accurately and sensitively</li> <li>That happiness is linked to being connected with others</li> <li>How to recognise the early signs of mental wellbeing concerns</li> <li>Common types of mental ill-health</li> </ul> <p><b>British Values:</b> Learning how to deal with the ethical issues, how to get participants back to the ‘state’ they were in when they entered an experiment. How to make sure that participants in research don’t have any long-term effects.</p> <p><b>Skills Builder:</b> Critical thinking and analytical. communication and interpersonal, Leadership and teamwork skills, Organization/time management skills, Goal setting and prioritizing. Knowledge of and experience with basic techniques of statistical analysis, conducting literature reviews, synthesizing and interpreting information, designing and conducting new research, data analysis, and interpreting and understanding research results</p> <p><b>Relationships</b> discussion of ethical issues and informed consent, socially sensitive research, treatment of participants in psychological research.</p>
<p><b>Numeracy</b></p>	<p>Data handling and analysis. Quantitative and qualitative data; the distinction between qualitative and quantitative data collection techniques. Primary and secondary data, including meta-analysis.</p> <p>Descriptive statistics: measures of central tendency – mean, median, mode; calculation of mean, median and mode; measures of dispersion; range and standard deviation; calculation of range; calculation of percentages.</p> <p>Presentation and display of quantitative data: graphs, tables, bar charts, histograms. Distributions: normal and skewed distributions; characteristics of normal and skewed distributions.</p>
<p><b>Literacy</b></p>	<p><b>Vocabulary Tier 2:</b> Experiment, naturalistic, controlled, covert, overt, correlations, replicability, objectivity</p> <p><b>Vocabulary Tier 3:</b> Correlation coefficient, content analysis, thematic analysis, discourse, reliability, validity, nominal data, ordinal data, interval data, null hypothesis, levels of significance, probability, critical values, calculated values, type I errors, type II errors, scientific reports, paradigms, hypothesis testing, falsifiability,</p> <p><b>Reading:</b> reciprocal reading strategies used, eg predictions – many hooks/ starters include asking what do we already know about this topic. Opportunity to summarize eg write down the main points of an argument/ theory. Questioners – does the text raise any questions, group work as an opportunity to discuss. Connectors – can the text be linked to any theories (either for or against). Opportunity to clarify – discussion of any words or ideas that the student didn’t understand.</p> <p><b>Writing:</b> As Psychology is all exam classes, many lessons are dedicated to essay writing. In research methods the main writing task will be designing a study for up to 12 marks.</p> <p><b>Oracy:</b> group work in the majority of lessons, think pair share activities eg a debate on Is Psychology a science.</p>
<p><b>Becoming future ready</b></p>	<p><b>Personal Skills:</b> As a Psychology student you will learn research skills, an understanding of how people think and behave which is essential in the real world, you will gain an ability to relate and empathise with a range of people, you will gain an understanding of how to listen to others sensitively and good questioning skills, you will learn techniques of how to cope with emotionally demanding situations, you will get the chance to work on your own and with others.</p> <p><b>Employability:</b> As well as the above personal skills leading to employability, Psychology A level delivers skills employers value, such as numerical skills, the ability to understand and work with statistics, effective communication and the ability to work productively in teams. It also gives an understanding of the human mind and behaviour and so any employment would use these skills as all employment involves working with others in some aspect or another.</p>
<p><b>Adaptation</b></p>	<p>Throughout this topic, quality first teaching will provide differentiation:</p>
<p><b>QFT/SEND Provision</b></p>	<p><b>By product:</b> differential outcomes using must, could, should.</p> <p><b>By resource:</b> each PowerPoint has different levels of differentiation to access, ‘key points’ extension, stretch and challenge. Stimulus questions are of a different ability.</p> <p><b>By Intervention:</b> by providing different levels of supervision and support, psychology drop ins, catch up sessions.</p> <p><b>By Progressive Questioning:</b> exploring pupils’ understanding through interactive dialogue.</p> <p><b>By Grouping:</b> according to prior attainment, gender, social preference, preferred learning style.</p> <p><b>By Task:</b> Pupils should be involved in the identification of targets which are meaningful to them and in the selection of an appropriate task from the given range.</p> <p><b>By Offering Optional Activities:</b> In class or as homework, to extend learning.</p> <p>This QFT/SEND provision will be explicit within the lesson-by-lesson schemes of work.</p>
<p><b>Implementation Curriculum Delivery</b></p>	<p>To be able to:</p> <ul style="list-style-type: none"> <li>Know the experimental method. Types of experiment, laboratory and field experiments;</li> <li>natural and quasi experiments.</li> </ul>

**Learning Outcomes**  
  
**(Most powerful knowledge)**

Know the types of observation: naturalistic and controlled observation; covert and overt observation; participant and non-participant observation.
Discuss self-report techniques. Questionnaires; interviews, structured and unstructured.
Know the Correlations. Analysis of the relationship between co-variables. Analysis and interpretation of correlation, including correlation coefficients. Know the difference between correlations and experiments.
Explain the different hypotheses: directional and non-directional and the difference between hypothesis and aims
Know sampling methods: the difference between population and sample; sampling techniques including: random, systematic, stratified, opportunity and volunteer. Discuss the implications of sampling techniques, including bias and generalisation.
Discuss pilot studies and the aims of piloting.
Explain the experimental designs: repeated measures, independent groups, matched pairs.
Understand observational design: behavioural categories; event sampling; time sampling.
Understand questionnaire construction, including use of open and closed questions
Understand the design of interviews.
Discuss the manipulation and control of variables, including independent, dependent, extraneous, confounding; operationalisation of variables.
Understand control mechanisms: random allocation and counterbalancing, randomisation and standardisation.
Explain demand characteristics and investigator effects.
Discuss the role of the British Psychological Society's code of ethics.
Discuss ethical issues in the design and conduct of psychological studies; dealing with ethical issues in research.
Discuss the role of peer review in the scientific process.
Discuss the implications of psychological research for the economy.
Understand quantitative and qualitative data; the distinction between qualitative and quantitative data collection techniques.
Know the difference between primary and secondary data, including meta-analysis.
Use measures of central tendency – mean, median, mode; calculation of mean, median and mode
Use measures of dispersion; range and standard deviation; calculation of range
Calculate of percentages; positive, negative and zero correlations
Present displays of quantitative data: graphs, tables, scattergrams, bar charts and histograms
Understand distributions: normal and skewed distributions; characteristics of normal and skewed distributions.
Understand statistical testing; the sign test

<b>Current learning to be developed in the future within:</b>	Year 2 research Methods  All topics could have RM integrated in the exam and so we incorporate RN questions into each topic. See PowerPoints on teams.
<b>Assessment</b>	Refer to assessment maps for formative and summative assessment opportunities.
<b>Impact</b>	Attainment and Progress – Refer to assessment results / data review documentation.

