# 2 The specification overview

## 2a. Overview of AS Level in Psychology (H169)

Learners must complete all components (01 and 02) to be awarded the OCR AS Level in Psychology.

| Content Overview | Assessment Overview | |
|---|---|---|
| Planning, conducting, analysing and reporting psychological research across a range of experimental and non-experimental methodologies and techniques.<br><br>Introduces some of the central areas, perspectives, issues and debates through research in psychology. | Research methods (01)<br>56 marks<br>written paper<br>1 hour 30 minutes | **50%** of total A level |
| | Core studies in psychology (02)*<br>56 marks<br>written paper<br>1 hour 30 minutes | **50%** of total A level |

* Indicates synoptic assessment

## 2b. Content of AS Level in Psychology (H169)

### Research methods (Component 01)

Learners will need to be familiar with the **four** main techniques for collecting/analysing data.

These are:

- self-report
- experiment
- observation
- correlation.

Learners will be expected to carry out their own practical investigations and reflect on their experiences using these four methods.

In addition, learners need to be familiar with the case study method but are not required to conduct one as part of their own practical investigations.

Learners will also need to be familiar with the following:

- planning and conducting research
- data recording, analysis and presentation
- report writing
- science in psychology.

### Core studies in psychology (Component 02)

Learners will need to be familiar with the ten core studies.

Learners will also need to be familiar with the following:

- areas and perspectives in psychology
- methodological issues relating to the core studies
- issues and debates in psychology.

## 2c. Content of Research methods (Component 01)

This component introduces and develops knowledge and understanding of the process of planning, conducting, analysing and reporting psychological research using a range of experimental and non- experimental methodologies and techniques.

It promotes an understanding of the methods of scientific enquiry used in empirical research and the relevant knowledge and skills required to conduct such research. It also encourages the acquisition of a range of evaluative concepts for reviewing and discussing the design and outcomes of research.

There is a strong focus on the requirement for learners to plan, conduct and analyse their own practical investigations using the four core research methods and techniques (experiment, observation, self-report and correlation).

Where possible and appropriate, links should be made with the content of the other components (e.g. in the application of evaluative issues).

The multiple-choice section of the examination may require candidates to utilise their knowledge of the core studies from Component 02.

It should also be noted that the content of Component 01, apart from the mathematical content, can also be assessed in Component 02.

### Research methods and techniques

| **1.1 Research methods and techniques** | Learners should have knowledge and understanding of the following research methods and techniques and their associated strengths and weaknesses: |
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| Experiment | • laboratory experiment<br>• field experiment<br>• quasi experiment. |
| Observation | • structured<br>• unstructured<br>• naturalistic<br>• controlled<br>• participant<br>• non-participant<br>• overt<br>• covert. |
| Self-report | • questionnaire<br>• Interviews:<br>  ○ structured, semi-structured, unstructured. |

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| Correlation | • obtaining data for correlational analysis<br>• positive correlation<br>• negative correlation<br>• no correlation. |
| Case study* | • when and why a case study method would be used |

* Students are required to know about the features of a case study but are not required to conduct one as part of their own practical investigations.

## Planning and conducting research

| **1.2 Planning and conducting research** | Learners should be familiar with the following features of planning and conducting research and their associated strengths and weaknesses: |
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| Aims and hypotheses and how to formulate | • research aim<br>• research question<br>• alternative hypotheses<br>• null hypotheses<br>• one-tailed (directional) hypotheses<br>• two-tailed (non-directional) hypotheses. |
| Populations, samples and sampling techniques | • target population and sample<br>• random sampling<br>• snowball sampling<br>• opportunity sampling<br>• self-selected sampling. |
| Experimental designs | • repeated measures design<br>• independent measures design<br>• matched participants design. |
| Variables and how they are operationalised | • independent variable (IV)<br>• dependent variable (DV)<br>• control of extraneous variables (researcher, situational and participant) |
| Designing observations | • behavioural categories<br>• time sampling<br>• event sampling. |
| Designing self-reports | • open questions<br>• closed questions<br>• rating scales:<br>○ Numerical scale, Likert rating scale, Semantic differential rating scale. |

## Data recording, analysis and presentation

| **1.3 Data recording, analysis and presentation** | Learners should be able to demonstrate knowledge and understanding of the process and procedures involved in the collection, analysis and presentation of data. This will necessitate the ability to perform some calculations (please see Appendix 5 for examples of mathematical requirements). |
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| Raw data | • design of raw data recording tables<br>• use of raw data recording tables<br>• standard and decimal form<br>• significant figures<br>• make estimations from data collected. |
| Levels of data | • nominal level data<br>• ordinal level data<br>• interval level data. |
| Types of data | • quantitative data<br>• qualitative data<br>• primary data<br>• secondary data. |
| Descriptive statistics | • measures of central tendency<br>○ mode, median, mean.<br>• measures of dispersion<br>○ range, variance, standard deviation.<br>• ratio<br>• percentages<br>• fractions<br>• frequency tables (tally chart). |

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| Graphs* | • line graphs<br>• pie charts<br>• bar charts<br>• histograms<br>• scatter diagram. |
| Inferential statistics | • normal distribution curves<br>• skewed distribution curves<br>• probability<br>• significance levels<br>• criteria for using a parametric test<br>• criteria for using a specific non-parametric inferential test (Mann-Whitney U test, Wilcoxon Signed Ranks test, Chi-square, Binomial Sign test and Spearman's Rho)<br>• using statistical tables of critical values for all five named non-parametric inferential tests<br>• write a significance statement including the calculated value, the critical value and significance level<br>• calculate Chi-square<br>• type 1 errors<br>• type 2 errors<br>• symbols: =, <, <<, >>, >, ∝, ~, ≥, ≤. |
| Methodological issues | • representativeness<br>• generalisability<br>• reliability:<br>○ internal, external, inter-rater, test-retest, split-half.<br>• validity:<br>○ internal, face, construct, concurrent, predictive, external, population, ecological.<br>• demand characteristics<br>• social desirability<br>• researcher/observer bias<br>• researcher/observer effect(s)<br>• ethical issues, including the British Psychological Society's Code of Ethics and Conduct:<br>○ Respect – informed consent, right to withdraw, confidentiality<br>○ Competence<br>○ Responsibility – protection of participant, debrief<br>○ Integrity – deception. |

*Students will not be asked to draw graphs/charts with a high degree of precision. For example, when sketching a pie chart, segments would only need to be roughly proportionate to calculated percentages.

## Report Writing

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| **1.4 Report writing** | Learners should have knowledge of the conventions of reporting research in a practical report and demonstrate understanding of the role, content and purpose of each of the main sections and sub-sections. |
| Sections and sub-sections of a practical report | • abstract<br>• introduction<br>• method (design, sample, materials/apparatus, procedure)<br>• results<br>• discussion<br>• references<br>• appendices. |
| Citing academic references | • a familiarity with citing academic research using the Harvard system of referencing,<br>e.g. Milgram, S. (1963) Behavioral study of obedience. *Journal of Abnormal and Social Psychology*, 67, (4), 371–378. |
| Peer review | • appreciate the role of the psychological community in validating new knowledge and ensuring integrity through the process of peer review. |

## Practical Investigations

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| **1.5 Practical investigations** | Learners are expected to conduct and analyse their own research practical investigations, including appropriate risk assessment and management (please see appendix 5). |
| | Learners should have undertaken the following practical investigations and be prepared to be assessed on them individually:<br>• experiment<br>• observation<br>• self-report<br>• correlation. |

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| **1.6 Science in psychology** | Learners should understand how society makes decisions about scientific issues and should be aware of the nature and principles of scientific enquiry through knowledge and understanding of the following concepts:<br>• the study of cause-and-effect<br>• falsification<br>• replicability<br>• objectivity<br>• hypothesis testing<br>• manipulation of variables<br>• control and standardisation<br>• quantifiable measurements. |

## 2c. Core studies in psychology (Component 02)

Core studies in psychology (Component 02) aims to develop the critical thinking and independent learning skills essential to the scientific study of psychology. The selected core studies reflect the contribution of psychology to an understanding of individual, social and cultural diversity.

This component develops learners' ability to make evaluative points about the studies and their ability to see the studies in the context of psychological areas, perspectives, issues and debates.

### Section A: Core studies

| Section A: Core studies | | |
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| This section will assess the learners' knowledge and understanding of the core studies, as well as their ability to evaluate the studies. The core studies are placed within a broad area of investigation. Within each area, the learners are required to examine two core studies. Holistically, the studies have been selected to represent a variety of research methodologies, designs, samples, sampling methods, issues and debates. Learners will need to refer to topics from Component 01 when analysing and evaluating core studies. Students should also be able to comment on the contribution of core studies to an understanding of individual, social and cultural diversity. For full references please see appendix 5. | | |
| **Area** | **Study** | **Topic** |
| **Social** | Milgram (1963) | Obedience to authority |
| | Piliavin et al. (1969) | Helping behaviour |
| **Cognitive** | Loftus and Palmer (1974) | Eyewitness testimony |
| | Grant et al. (1998) | Context-dependent memory |
| **Developmental** | Bandura et al. (1961) | Transmission of aggression |
| | Chaney et al. (2004) | Adherence to medical regimes |

| cont. Section A: Core studies | | |
|---|---|---|
| **Area** | **Study** | **Topic** |
| **Biological** | Sperry (1968) | Lateralisation of function in the brain |
| | Casey et al. (2011) | Delayed gratification |
| **Individual differences** | Freud (1909) | Phobias |
| | Baron-Cohen et al. (1997) | Autism and theory of mind |

| Section A: Core Studies | Content |
|---|---|
| **Individual studies** | 'Tell the story' of each core study in terms of:<br>• aim<br>• method<br>  ○ design<br>  ○ sample<br>  ○ materials/apparatus<br>  ○ procedure<br>• findings/results<br>• conclusions<br>• how the study relates to the topic.<br>• how the study could be improved. |
| **Core studies in their area** | • Similarities between studies<br>• Differences between studies<br>• To what extent do studies contribute to our understanding of:<br>  ○ individual diversity<br>  ○ social diversity<br>  ○ cultural diversity<br>• Usefulness of studies |
| **Methodological issues** | • The strengths and weaknesses of the different research methods and techniques<br>• The strengths and weaknesses of different types of data<br>• Ethical issues<br>• Validity<br>• Reliability<br>• Sampling bias<br>• Ethnocentrism. |

## Section B: Areas, perspectives, issues and debates

| Section B: Areas, perspectives, issues and debates | |
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| In this section, learners will be asked questions that invite them to generate an extended discussion, recognising the inter-relationship between different areas, perspectives, issues and debates in psychology.<br>The specification places core studies within particular areas. Learners may also argue that a core study placed within one area can be seen as falling within another area.<br>Core studies that come from a behaviourist perspective include Bandura and Chaney. Psychodynamic ideas are referred to in the research by Freud. | |
| **Areas, perspectives, issues and debates** | **Content** |
| **Areas**<br>• Social<br>• Cognitive<br>• Developmental<br>• Biological<br>• Individual Differences | • The defining principles and concepts of each area.<br>• Research to illustrate each area.<br>• Strengths and weaknesses of each area.<br>• Applications of each area.<br>• How each area is different from and similar to other areas/perspectives. |
| **Perspectives**<br>• Behaviourist<br>• Psychodynamic | • The defining principles and concepts of each perspective.<br>• Research to illustrate each perspective.<br>• Strengths and weaknesses of each perspective.<br>• Applications of each perspective.<br>• How each perspective is different from and similar to the other perspective/areas. |
| **Debates**<br>• Nature/nurture<br>• Freewill/determinism<br>• Reductionism/holism<br>• Individual/situational explanations<br>• Psychology as a science | • The defining principles and concepts of each debate.<br>• Different positions within each debate.<br>• Research to illustrate different positions within each debate.<br>• Strengths and weaknesses of the different positions within each debate. |
| **Issues**<br>• Ethical issues<br>• Conducting socially sensitive research<br>• Usefulness of research | • The defining principles and concepts of each issue.<br>• Research to illustrate the different issues.<br>• Strengths and weaknesses related to the different issues. |

## Section C: Practical applications

| Section C: Practical applications | |
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| To encourage awareness of practical applications of psychology, this section will require learners to apply their knowledge and understanding of psychology to a novel source. The source could be a newspaper or magazine article, a blog, a diary entry, email exchange or equivalent written source. It is advised that teachers prepare learners for this section by giving them a variety of sources to consider. | |
| **Practical applications** | **Content** |
| **The practical applications of psychology** | • Identify and apply the psychological content in the source.<br>• Make evidence-based suggestions in relation to the source.<br>• Consider the strengths and weaknesses of the suggestion(s) made. |