



## General Certificate of Education

# Psychology 5186/6186 *Specification B*

### *PYB3 Practical Investigation*

## Mark Scheme

### *2005 examination - June series*

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

## **PYB3**

### **Skill A: Design**

#### **A1** Aim stated:

- 2 marks The aim gives a clear idea of what the candidate hopes to find out. What is being investigated is obvious.
- 1 mark The aim gives some idea of what the candidate hopes to find out, although this may be very generalised.
- 0 marks The aim is very unclear or not stated.

#### **A2** Background material:

- 2 marks Some of the background material has an obvious and direct relevance to the investigation; this requires that the proposed investigation is drawn from theory and/or research presented in the content of the AS modules.
- 1 mark The background material has some relevance to the investigation.
- 0 marks The background material is irrelevant or none is included.

#### **A3** Hypothesis stated:

- 2 marks The hypothesis is appropriate to the study and testable. It is evident what is being measured.
- 1 mark The hypothesis is stated but is unclear and/or untestable.
- 0 marks There is no hypothesis stated.

#### **A4** Variables under investigation identified:

- 2 marks Both the IV and DV or key variables are accurate and operationalised.
- 1 mark One or both variables are stated but only one is accurate or operationalised.
- 0 marks Neither variable is clearly identified or operationalised.

#### **A5** Possible extraneous variable identified:

- 2 marks A plausible extraneous variable is clearly stated, along with a clear explanation of why it is an EV and how it would change the results or lead to the wrong conclusion being made.
- 1 mark A possible EV is stated, but there is no clear explanation of why/how the results would be affected.
- 0 marks The suggestion for an EV is missing or it is inappropriate.

#### **A6** Control suggested for extraneous variable:

- 2 marks There is a clear description of how the EV (in A5) could be controlled.
- 1 mark There is a partial description of how the EV (in A5) could be controlled.
- 0 marks There is no description of how the EV (in A5) could be controlled.

#### **A7** Target population identified:

- 2 marks The target population is explicitly stated, including a location which can be verified in the report.
- 1 mark There is some reference to the population or target population used.
- 0 marks There is no reference to the population or target population used.

**A8** Sampling method identified:

- 2 marks The sampling method is correct and clearly stated, using one of the methods given in the specification (ie random, opportunity, stratified and systematic).
- 1 mark There is some reference to, or description of, a sampling process although this may not be correctly named.
- 0 marks There is no reference to a sampling process.

**A9** Sampling method justified:

- 2 marks There is a clear and appropriate justification for the choice of sampling method.
- 1 mark There is some attempt to justify the choice of sampling method.
- 0 marks There is no attempt to justify the choice of sampling method or this is inappropriate.

**A10** Task and materials described:

- 2 marks The candidate describes and justifies the materials that they have designed and the task that the participants have to do.
- 1 mark The materials and/or task are included but not fully described, or are not designed by the candidate.
- 0 marks The materials and task are not described.

**A11** Ethical issue identified:

- 2 marks One clearly relevant ethical issue is explicitly stated. Appropriate terminology is used.
- 1 mark One ethical issue is identified but may not be stated in the appropriate terminology/may not have obvious relevance to the investigation.
- 0 marks No specific ethical issue is identified.

**A12** Control suggested for ethical issue:

- 2 marks The candidate states clearly how they controlled the issue identified in skill A11.
- 1 mark There is some reference to control of this issue.
- 0 marks There is no reference to control of this issue.

**A13** Procedure described:

- 2 marks The procedure is clear; it is explicit what was done and in what order.
- 1 mark There is some attempt to describe the procedure.
- 0 marks There is no attempt to describe the procedure.

**A14** Procedure replicable:

- 2 marks All aspects of the investigation are included, eg details of where the study was carried out, materials, and a copy of the brief, standardised instructions and debrief in verbatim (for an experiment). To get 2 marks in A14, 2 marks must also have been awarded for A13.
- 1 mark There is an attempt to include the above but the description falls short on one or two aspects, eg there may be no materials or the brief or debrief are not verbatim.
- 0 marks There is an attempt to include the above but the description falls short on more than two aspects.

### **Skill B: Implementation**

#### **B1** Evidence from reporting of appropriate treatment of participants:

- 2 marks Evidence that the participants have been treated ethically is included. There is a brief and debrief addressing the ethical issues. For participants under the age of 16, a letter of consent is included.
- 1 mark Some evidence of ethical treatment is included.
- 0 marks No evidence of ethical treatment is included, although there may be reference made to “treating participants ethically”.

#### **B2** Evidence from reporting of procedures carried out appropriately:

- 2 marks Evidence that the procedure was appropriate and that the participants have completed the task is included. For example, this could be some “answer sheets” on which participants recalled words from a list.
- 1 mark Some evidence that the procedure was carried out as planned is included.
- 0 marks No evidence that the procedure was carried out as planned is included.

### **Skill C: Analysis and Interpretation of data**

#### **C1** Data represented in appropriate form(s):

- 2 marks Summary data are presented in an appropriate form, such as a table, bar chart or pie chart. There are no raw data here.
- 1 mark There is some attempt to present a summary of the data, although raw data may also be included in the same display.
- 0 marks There are no summary data included.

#### **C2** Table(s)/chart(s)/graph(s) headed appropriately:

- 2 marks The data presented for C1 have a clear, detailed title that includes the variables under investigation. Tables and graphs are clearly labelled including units where appropriate.
- 1 mark The data presented for C1 have a title with some detail, but do not reach the criteria for 2 marks.
- 0 marks The data presented have the title “Results”, or no title is given.

#### **C3** Calculation(s) performed on raw data:

- 2 marks A correctly calculated mean, % or other descriptive statistic is presented. Raw data and evidence of the calculation are included.
- 1 mark A correctly calculated mean, % or other descriptive statistic is presented, and raw data are included.
- 0 marks No calculation is presented, or it is incorrect.

#### **C4** Verbal summary of data:

- 2 marks A clear written summary of the results is given, stating explicitly what has been found.
- 1 mark A written summary of the results is included but this may not be explicit, eg the candidate may refer to Group 1 and 2.
- 0 marks There is no summary of the results.

**C5** Results related to hypothesis:

- 2 marks The candidate states clearly which hypothesis is accepted or rejected.
- 1 mark The candidate makes an attempt to accept or reject one of the hypotheses, although it may not be clear which is accepted.
- 0 marks There is no attempt to accept or reject one of the hypotheses.

**C6** Results related to background material:

- 2 marks There is a clear comparison of the candidate's results and the background material quoted in the Introduction.
- 1 mark There is an attempt to compare results with previously quoted research, but this may be vague or superficial.
- 0 marks There is no attempt to compare results with previously quoted research.

**C7** Conclusion drawn:

- 2 marks A clearly stated and accurate conclusion or implication is drawn from the results, not a re-statement of the results.
- 1 mark There is an attempt to draw a conclusion or implication.
- 0 marks There is no attempt to draw a conclusion or implication.

**C8** Appreciation of limitation of investigation:

- 2 marks A relevant limitation of the investigation is explicitly stated and a statement is made explaining why this is a limitation.
- 1 mark A relevant limitation is stated but this is either not explained or inadequately so.
- 0 marks No attempt is made to suggest a limitation, or the suggestion is irrelevant.

**C9** Suggestion for improvement of investigation:

- 2 marks A clearly stated and appropriate improvement is suggested. This may or may not relate to the limitation stated in C8.
- 1 mark An attempt is made to suggest an improvement.
- 0 marks No attempt is made to suggest an improvement.

**C10** Suggestion for further research:

- 2 marks An extension study on the same topic is clearly outlined, possibly by changing one of the key variables.
- 1 mark An attempt is made to suggest some extension work, which has some relevance to the present study.
- 0 marks No attempt is made to suggest some extension work, or the suggestion is irrelevant.

### **Skill D: Communication**

#### **D1** All components of report present:

2 marks All headings as below are used:

- Title (this is appropriate, indicating the nature of the investigation, ie not a vague title such as “Study on Memory” or “Psychology Coursework”)
- Abstract
- Introduction or background
- Method or design, procedure, materials and participants
- Results
- Discussion
- References (or Bibliography)
- Appendix

1 mark At least 4 of the above headings are used

0 marks Fewer than 4 of the above headings are used.

#### **D2** Use of terminology:

2 marks Accurate terminology is evident in the written account. This could be psychological and/or methodological terminology.

1 mark There is very limited use of accurate terminology in the written account.

0 marks There is no use of accurate terminology in the written account.

#### **D3** Abstract presented:

2 marks The abstract is clear and concise, including all points as below.

- Brief outline of the background theory and/or research on which the investigation was based
- Aim(s) and/or hypothesis(es) of this investigation
- Details of the research method used (eg experiment or observation) and the design chosen (eg repeated measures)
- Sampling method and/or sample of participants
- Results of the investigation including appropriate statistical information
- Statement about whether the hypothesis was accepted or rejected (or which hypothesis was accepted)
- The conclusion drawn.

1 mark An attempt is made at an abstract but this is incomplete, although it includes at least 4 points as above.

0 marks The abstract contains fewer than 4 points as above or is not included.

#### **D4** References presented:

2 marks At least one correctly referenced book, journal or dated website is included.

1 mark There is an attempt to reference a book or journal but this is incomplete, or only a website with no date is referenced.

0 marks No references are included.

*[Author’s surname, Initials, Date, Title, Publisher]*