



# Psychology



Mark like an Examiner for A2 Unit 4  
Mark Schemes

## SECTION A

### Investigation One

**An experiment on the effect of context on an individual's perception.**

1. (a) State the null hypothesis from your research. **[2]**

<b>Marks</b>	<b>AO1</b>
2	<ul style="list-style-type: none"><li>• Null hypothesis clearly states no difference.</li></ul>
1	<ul style="list-style-type: none"><li>• Null hypothesis partially states no difference.</li></ul>
0	<ul style="list-style-type: none"><li>• Inappropriate answer given.</li><li>• No response attempted.</li></ul>

- (b) Describe how you collected your results and justify how they were analysed, using a statistical test, and state whether this led to your results being significant.

**[10]**

Credit <b>could</b> be given for:	
<ul style="list-style-type: none"> <li>• A description of the measuring tools, e.g. pictures images, word list.</li> <li>• A description of the procedure time given per group how they were scored etc.</li> <li>• Type of data collected.</li> <li>• Use of content analysis.</li> <li>• Descriptive statistics.</li> <li>• Specific statistical test chosen and why.</li> <li>• Results from statistical test observed and critical value.</li> <li>• Experimental/null hypothesis retained.</li> <li>• Any other appropriate description.</li> </ul>	
Marks	AO2
9-10	<ul style="list-style-type: none"> <li>• Description is thoroughly detailed.</li> <li>• Justification of analysis is well judged.</li> <li>• Effective use of terminology.</li> <li>• The structure is logical.</li> </ul>
6-8	<ul style="list-style-type: none"> <li>• Description is reasonably detailed.</li> <li>• Justification of analysis is appropriate.</li> <li>• Good use of terminology.</li> <li>• The structure is mostly logical.</li> </ul>
3-5	<ul style="list-style-type: none"> <li>• Description is basic.</li> <li>• Justification of analysis may be inappropriate or inaccurate in places.</li> <li>• There is some use of appropriate terminology.</li> <li>• There is reasonable structure.</li> </ul>
1-2	<ul style="list-style-type: none"> <li>• Description is superficial and lacks many key elements.</li> <li>• Justification of analysis is superficial.</li> <li>• There is very little use of appropriate terminology.</li> <li>• Answer lacks structure.</li> </ul>
0	<ul style="list-style-type: none"> <li>• A non-experimental method is used.</li> <li>• Inappropriate answer given.</li> <li>• No response attempted.</li> </ul>

- (c) Identify **two** issues of validity you considered when planning your research and explain how these were dealt with.  
**[3+3]**

Credit <b>could</b> be given for:	
<ul style="list-style-type: none"> <li>• External validity - inaccurate measuring tool dealt with by using concurrent validity comparing it to an established measuring tool.</li> <li>• Demand characteristics-this can cover several issues that might affect validity e.g. an extraneous variable not controlled which becomes a confounding variable.</li> <li>• Participants try to work out the hypothesis to give answer experimenter wants dealt with by not telling participants the hypothesis (single blind design).</li> <li>• Researcher/experimenter bias - the researchers' behaviour may influence results dealt with by the person carrying out experiment not knowing the hypothesis (double blind design).</li> <li>• Any other relevant issue.</li> </ul>	
Marks	A03
3	<ul style="list-style-type: none"> <li>• One issue of validity identified related to the specific study and dealt with appropriately.</li> </ul>
2	<ul style="list-style-type: none"> <li>• One issue of validity identified and related to the specific study/ or only dealt with appropriately.</li> </ul>
1	<ul style="list-style-type: none"> <li>• One issue of validity identified only.</li> </ul>
0	<ul style="list-style-type: none"> <li>• Inappropriate answer given.</li> <li>• No response attempted.</li> </ul>

## INVESTIGATION TWO

### An observation on sharing behaviour.

2. (a) (i) Explain how you operationalised sharing behaviour in your observation. **[2]**

Credit <b>could</b> be given for:	
<ul style="list-style-type: none"> <li>• A list of actions that would be deemed shared behaviour e.g. two people sharing a meal.</li> <li>• Any other appropriate explanation.</li> </ul>	
Marks	AO1
2	<ul style="list-style-type: none"> <li>• Full explanation of how sharing behaviour was operationalised.</li> </ul>
1	<ul style="list-style-type: none"> <li>• Partial explanation of how sharing behaviour was operationalised.</li> </ul>
0	<ul style="list-style-type: none"> <li>• Inappropriate answer given.</li> <li>• No response attempted.</li> </ul>

- (ii) Briefly describe an extraneous variable that wasn't controlled during your observation. **[2]**

Marks	AO1
2	<ul style="list-style-type: none"> <li>• Detailed description of extraneous variable.</li> </ul>
1	<ul style="list-style-type: none"> <li>• Partial description of extraneous variable.</li> </ul>
0	<ul style="list-style-type: none"> <li>• Inappropriate answer given.</li> <li>• No response attempted.</li> </ul>

- (b) Briefly describe how you used either time sampling or event sampling as part of your procedure.  
[2]

Marks	AO1
2	<ul style="list-style-type: none"> <li>• Full description of event or time sampling.</li> </ul>
1	<ul style="list-style-type: none"> <li>• Partial description of event or time sampling.</li> </ul>
0	<ul style="list-style-type: none"> <li>• Inappropriate answer given.</li> <li>• No response attempted.</li> </ul>

- (c) Identify **two** ethical issues you considered when planning your observation and explain how these were dealt with.  
[3+3]

Credit <b>could</b> be given for:	
<ul style="list-style-type: none"> <li>• Lack of informed consent - participants unaware they were being observed dealt with by being informed after observation (debrief).</li> <li>• Lack of privacy - participants' privacy was invaded dealt with by observing participants in a public place therefore no expectation of privacy.</li> <li>• Any other relevant issue.</li> </ul>	
Marks	AO3
3	<ul style="list-style-type: none"> <li>• Ethical issue identified related to the specific study and dealt with appropriately.</li> </ul>
2	<ul style="list-style-type: none"> <li>• Ethical issue identified and related to the specific study/or only dealt with appropriately.</li> </ul>
1	<ul style="list-style-type: none"> <li>• Ethical issue identified but not related to the specific research or dealt with appropriately.</li> </ul>
0	<ul style="list-style-type: none"> <li>• Inappropriate answer given.</li> <li>• No response attempted.</li> </ul>

**Total 30**

## SECTION B

### Application of research methods to novel scenarios

3. A research psychologist was concerned about the rise of obesity throughout the UK. Using a sample of 2000 people from a typical town the psychologist collected data on the participants' weight and age. The psychologist collected descriptive data using measures of central tendency. The results are shown in the table below.

Age	Mean weight (in pounds)	Mod e	Media n
16- 25	12 2	119	120
26- 45	18 4	196	186

- (a) State the level of measurement of this data. Explain your answer.  
[2]

Marks	A02
2	<ul style="list-style-type: none"><li>This research produced ratio level data e.g. age or weight both have a fixed zero.</li></ul>
1	<ul style="list-style-type: none"><li>Ratio level data.</li></ul>
0	<ul style="list-style-type: none"><li>Inappropriate answer given</li><li>No response attempted</li></ul>





4. A psychologist is interested in bystander intervention. The psychologist wants to see how many people would stop and help a distressed woman, depending on how she is dressed. Explain how you would carry out this study.

**[15]**

In your answer you could include:

- The experimental hypothesis
- Type of experimental method/design
- The setting
- The sample
- Operationalisation
- Extraneous variables
- Checking reliability
- Checking validity
- Ethical issues

Credit <b>could</b> be given for:	
<ul style="list-style-type: none"> <li>• The type of experimental method e.g. field experiment.</li> <li>• The type of experimental design e.g. independent groups.</li> <li>• The sampling method used and how it was carried out.</li> <li>• A description of the observational environment.</li> <li>• A description of the measuring tools.</li> <li>• A description of the procedure carried out.</li> <li>• Any instruction given, e.g. ethical guidelines.</li> <li>• Type of data collected.</li> <li>• Any other appropriate material.</li> </ul>	
Marks	AO2
13-15	<ul style="list-style-type: none"> <li>• Thorough description which includes all key elements.</li> <li>• Effective use of terminology.</li> <li>• The structure is logical, allowing replication.</li> <li>• It would be very easy to carry out the investigation.</li> </ul>
9-12	<ul style="list-style-type: none"> <li>• Reasonable description which includes the key elements.</li> <li>• Good use of terminology.</li> <li>• The structure is mostly logical allowing replication.</li> <li>• It would be fairly easy to carry out the investigation.</li> </ul>
5-8	<ul style="list-style-type: none"> <li>• Basic description which may lack key elements.</li> <li>• There is some use of appropriate terminology.</li> <li>• There is reasonable structure but replication may not be possible.</li> <li>• Not always clear how to carry out investigation.</li> </ul>
1-4	<ul style="list-style-type: none"> <li>• Superficial description which lacks key elements.</li> <li>• There is very little use of appropriate terminology.</li> <li>• It is not possible to carry out the investigation.</li> </ul>
0	<ul style="list-style-type: none"> <li>• Non-experimental method used.</li> <li>• Inappropriate answer given.</li> <li>• No response attempted.</li> </ul>

5. A psychologist carried out a longitudinal study into the effects of a new type of anti- psychotic drug. The drug was prescribed to eight men who had suffered from long term mental issues. The men took the drug each week over a five year period. A questionnaire was given to the men every six months asking how they were responding to the medication and also to record any side effects, the results from the questionnaire were kept confidential.

(a) Briefly describe what is meant by the term 'longitudinal study'. [2]

Credit <b>could</b> be given for:	
<ul style="list-style-type: none"> <li>• A method which involves conducting research over a long period of time in order to observe long-term effects of X on a specific behaviour.</li> <li>• Any other appropriate description.</li> </ul>	
Marks	AO1
2	<ul style="list-style-type: none"> <li>• Brief description of what is meant by longitudinal study.</li> </ul>
1	<ul style="list-style-type: none"> <li>• Partial description of what is meant by longitudinal study.</li> </ul>
0	<ul style="list-style-type: none"> <li>• Inappropriate answer given.</li> <li>• No response attempted.</li> </ul>

(b) Identify and explain **two** disadvantages of using a longitudinal study for this research.

[2+2]

Credit <b>could</b> be given for:	
<ul style="list-style-type: none"> <li>• In a longitudinal study attrition is a problem participants might drop out especially if they have mental illness and it becomes worse.</li> <li>• The antipsychotic drugs may be causing severe side effects forcing the participant to drop out.</li> <li>• The participants may become aware of the study and their behaviour e.g. answers on the questionnaire may be affected.</li> <li>• Longitudinal studies are hard to finance who is paying for the medication.</li> <li>• The findings from this study may only consider one cohort e.g. males are they all the same age? The results cannot be generalised.</li> <li>• Any other appropriate disadvantage.</li> </ul>	
Marks	A03
2	<ul style="list-style-type: none"> <li>• Disadvantage identified and explained fully and related to the scenario.</li> <li>• There is some use of appropriate terminology.</li> </ul>
1	<ul style="list-style-type: none"> <li>• Disadvantage identified and only partially explained.</li> <li>• No reference to the scenario.</li> <li>• There is very little use of appropriate terminology.</li> <li>• Answer lacks clarity.</li> </ul>
0	<ul style="list-style-type: none"> <li>• Inappropriate answer given.</li> <li>• No response attempted.</li> </ul>

- (c) Explain why the results from the questionnaire were kept confidential. **[3]**

Credit <b>could</b> be given for:	
<ul style="list-style-type: none"> <li>• Social desirability bias participant gives the answer that makes them look good if name kept confidential would be more open with the truth.</li> <li>• Participants are more likely to be honest if results kept secret especially with a sensitive topic such as mental illness.</li> <li>• By ensuring confidentiality the research is seen to be more ethical.</li> <li>• Any other appropriate explanation.</li> </ul>	
Marks	AO2
3	<ul style="list-style-type: none"> <li>• Thorough explanation of why results from questionnaire were kept confidential and related to the scenario.</li> </ul>
2	<ul style="list-style-type: none"> <li>• Reasonable explanation of why results from questionnaire were kept confidential and related to the scenario.</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• Thorough explanation of why results from questionnaire were kept confidential with no reference to the scenario.</li> </ul>
1	<ul style="list-style-type: none"> <li>• Basic explanation of why results from questionnaire were kept confidential with no reference to the scenario.</li> </ul>
0	<ul style="list-style-type: none"> <li>• Inappropriate answer given.</li> <li>• No response attempted.</li> </ul>

**Total 30**